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## **ARGENTINA**

### **LOANS PROPOSAL FOR A RURAL AND URBAN WATER SUPPLY PROGRAM**

**(AR-0056)**

**LOAN PROPOSAL**

**October 20, 1977**

ARGENTINA

URBAN AND RURAL WATER SUPPLY SYSTEMS PROGRAM

LOAN PROPOSAL

AR-0056

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# ARGENTINA

## BASIC ECONOMIC STATISTICS

### 1. Area and Population

|                                                   |        |
|---------------------------------------------------|--------|
| Area (thousands of square kilometers)             | 2,777  |
| Total population (thousands of inhabitants, 1976) | 25,384 |
| Inhabitants per square kilometer                  | 9      |
| Percentage of literacy (1975)                     | 93     |
| Rate of population growth (1960-1976)             | 1.5    |

Economically active population,  
percentage breakdown by sector: (1973)

|                               |      |
|-------------------------------|------|
| Agriculture                   | 14.3 |
| Mining                        | 0.6  |
| Manufacturing                 | 27.4 |
| Construction                  | 5.5  |
| Electric energy               | 2.6  |
| Commerce                      | 10.0 |
| Transportation                | 6.0  |
| Services                      | 16.8 |
| Activities not well specified | 16.8 |

### 2. National Accounts

Percentage breakdown of the  
gross domestic product by sector:

|                                  | <u>1960</u> | <u>1972</u> | <u>1973</u> | <u>1974</u> | <u>1975</u> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|
| Agriculture                      | 16.6        | 11.1        | 12.2        | 12.2        | 12.1        |
| Mining                           | 1.1         | 1.7         | 1.6         | 1.5         | 1.5         |
| Manufacturing                    | 31.1        | 37.9        | 38.0        | 38.1        | 37.6        |
| Electric energy                  | 1.2         | 2.5         | 2.6         | 2.6         | 2.8         |
| Construction                     | 4.0         | 4.5         | 4.0         | 4.2         | 3.9         |
| Commerce                         | 18.9        | 18.1        | 17.6        | 17.8        | 17.5        |
| Transportation                   | 7.9         | 7.3         | 7.3         | 7.2         | 7.1         |
| Financial services               | 4.0         | 3.5         | 3.5         | 3.5         | 3.7         |
| Other services }<br>Government } | 15.2        | 13.4        | 13.2        | 12.9        | 13.8        |

Fixed capital formation, gross  
(Percentage of the GDP)

|  |             |             |             |             |             |
|--|-------------|-------------|-------------|-------------|-------------|
|  | <u>20.6</u> | <u>23.0</u> | <u>21.7</u> | <u>21.1</u> | <u>19.1</u> |
|--|-------------|-------------|-------------|-------------|-------------|

|                                    | <u>1960-75</u> | <u>1966-75</u> |
|------------------------------------|----------------|----------------|
| Rate of growth of GDP              | 4.2            | 4.3            |
| Rate of growth of GDP, per capita  | 2.6            | 2.8            |
| Rate of growth of total investment | 4.1            | 5.3            |

| 3. | <u>Balance of Payments</u><br>(Millions of US\$) | <u>1960</u>  | <u>1971</u>  | <u>1972</u>  | <u>1973</u>  | <u>1974</u>  | <u>1975</u> |
|----|--------------------------------------------------|--------------|--------------|--------------|--------------|--------------|-------------|
| A. | Balance on Current Account                       | -204.0       | -384.0       | -218.3       | 703.3        | 108.2        | -1,318.6    |
| B. | Long-term Capital Flow (net):                    | 545.0        | 253.0        | 94.5         | -84.3        | 55.3         | 63.1        |
|    | Public:                                          | <u>22.0</u>  | <u>187.0</u> | <u>-23.9</u> | <u>-97.8</u> | <u>105.8</u> | <u>60.7</u> |
|    | Private:                                         | <u>523.0</u> | <u>66.0</u>  | <u>118.4</u> | <u>13.5</u>  | <u>-50.5</u> | <u>2.4</u>  |
|    | Direct Investment                                | 332.0        | 11.0         | 9.8          | 9.5          | 9.6          | -           |
|    | Other                                            | 191.0        | 55.0         | 108.6        | -6.0         | -60.1        | 2.4         |
| 4. | <u>Foreign Trade</u><br>(Millions of US\$)       |              |              |              |              |              |             |
|    | Exports:                                         |              |              |              |              |              |             |
|    | Total                                            | 1,079.0      | 1,740.0      | 1,941.1      | 3,266.0      | 3,930.7      | 2,961.3     |
|    | LAFTA                                            | 170.3        | 365.5        | 484.1        | 797.4        | 929.4        | 755.6       |
|    | Andean Group                                     | 23.6         | 67.6         | 72.4         | 137.6        | 217.6        | 154.8       |
|    | CACM                                             | -            | 1.8          | 3.0          | 7.7          | 13.3         | 4.7         |
|    | Latin America                                    | 170.6        | 369.9        | 491.0        | 813.0        | 952.8        | 766.0       |
|    | United States                                    | 91.9         | 162.4        | 192.1        | 268.2        | 334.2        | 196.8       |
|    | Canada                                           | 2.7          | 7.7          | 9.8          | 12.5         | 15.7         | 10.6        |
|    | Japan                                            | 40.3         | 89.0         | 57.5         | 134.9        | 178.8        | 136.1       |
|    | United Kingdom                                   | 221.4        | 120.0        | 169.9        | 214.0        | 189.9        | 78.7        |
|    | European Common Market                           | 650.6        | 797.9        | 937.9        | 1,313.7      | 1,325.6      | 855.2       |
|    | Imports:                                         |              |              |              |              |              |             |
|    | Total                                            | 1,249.0      | 1,868.0      | 1,905.0      | 2,235.3      | 3,634.9      | 3,946.6     |
|    | LAFTA                                            | 201.6        | 390.3        | 373.1        | 436.0        | 789.4        | 910.4       |
|    | Andean Group                                     | 107.1        | 78.8         | 97.9         | 98.0         | 208.8        | 258.9       |
|    | CACM                                             | -            | 0.5          | -            | 0.7          | 4.4          | 1.0         |
|    | Latin America                                    | 202.0        | 394.4        | 377.9        | 443.7        | 805.9        | 929.6       |
|    | United States                                    | 327.4        | 416.0        | 388.4        | 480.0        | 616.7        | 643.9       |
|    | Canada                                           | 16.7         | 53.0         | 61.5         | 47.8         | 64.6         | 84.6        |
|    | Japan                                            | 27.8         | 155.4        | 142.8        | 256.5        | 391.6        | 493.6       |
|    | United Kingdom                                   | 113.1        | 113.3        | 129.4        | 104.7        | 111.4        | 136.8       |
|    | European Common Market                           | 464.7        | 572.8        | 682.4        | 674.3        | 966.8        | 1,082.8     |

|    |                                                              |             |             |             |             |             |                 |
|----|--------------------------------------------------------------|-------------|-------------|-------------|-------------|-------------|-----------------|
| 5. | <u>International Monetary Reserves</u><br>(Millions of US\$) | <u>1960</u> | <u>1972</u> | <u>1973</u> | <u>1974</u> | <u>1975</u> | <u>1976</u>     |
|    | Central Bank Reserve Holdings (gross)                        | 525         | 465         | 1,318       | 1,315       | 452         | 930 <u>1/</u>   |
| 6. | <u>Cost of Living Index</u>                                  |             |             |             |             |             |                 |
|    | Base year 1970 = 100                                         | 15          | 214         | 344         | 425         | 1,202       | 7,893 <u>1/</u> |
| 7. | <u>Public Finance</u><br>(Millions of pesos)                 |             |             |             |             |             |                 |
|    | Central Government Current Revenue:                          | ..          | 11,130      | 16,400      | 26,871      | 46,180      | ..              |
|    | Central Government Total Expenditures:                       | ..          | 19,004      | 39,570      | 60,154      | 212,471     | ..              |
|    | Current Expenditures                                         | ..          | 14,074      | 31,467      | 48,966      | 173,024     | ..              |
|    | Capital Expenditure *                                        | ..          | 4,930       | 8,103       | 11,188      | 39,447      | ..              |
|    | Total Surplus (+) or Deficit (-)                             | ..          | -7,874      | -23,170     | -33,283     | -166,291    | ..              |

\* Does not include amortization of debt.

1/ September.

#### SOURCES:

##### Area:

Organization of American States, América en Cifras 1972 - Situación Demográfica: Estado y Movimiento de la Población.

##### Population:

Information supplied to IDB by the Instituto Nacional de Estadística y Censos (INDEC), in October 1976.

##### Literacy:

Ministerio de Educación, Boletín Estadístico de la Educación, 1975.

##### Economically Active Population:

IDB estimate based on information from the International Labor Office, Anuario de Estadísticas del Trabajo, 1962-1970.

##### Gross Domestic Product:

IDB estimate based on data from the Central Bank of the Argentine Republic, Sistema de Cuentas del Producto e Ingreso de la Argentina, Vol. II, 1975, and information supplied by the Central Bank in August 1976.

Foreign Trade

Exports and Imports:

International Monetary Fund, Direction of Trade Annual, 1969-1975,  
and Direction of Trade, November 1976.

Balance of Payments:

International Monetary Fund, Balance of Payments Yearbook, (Computer  
tapes, September, 1976).

International Monetary Reserves:

International Monetary Fund, International Financial Statistics,  
January 1977.

Cost of Living Index:

International Monetary Fund, International Financial Statistics,  
January 1977.

Public Finance:

Ministerio de Economía y Trabajo, Informe Económico, Cuarto Trimestre  
1975.

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Key to signs

.. Unavailable.

- Zero or less than one half of the last digit used.

División de Estudios Generales  
Sección de Estadística  
February 1977

## ARGENTINA

### URBAN AND RURAL WATER SUPPLY SYSTEMS PROGRAM

#### (Loan Proposal)

#### 1. Frame of Reference

In spite of her high standard of living and income, Argentina is behind other countries of the continent supplying sanitary drinking water services to the public. According to a recent report from the Pan American Health Organization, Argentina is in eleventh place among 23 Latin American member countries of the Bank with regard to the shares of their urban population furnished residential running water services.

Owing to this deficiency, infant mortality in Argentina has increased considerably in the unserved areas. The national average of 63 deaths per 1,000 live births exceeds the continental average of 60 death per 1,000 live births. This rate is higher in Jujuy at 133 deaths per 1,000, in Salta at 130, in Neuquen at 108, in Rio Negro at 95, and in Catamarca at 74. Due to the same cause the incidence of waterborne gastrointestinal diseases (amebiasis), bacillary dysentery, etc.) is twice that of other countries of the continent with comparable data.

The geographic distribution of drinking water services throughout the country is furthermore irregular in terms of served population as well as in quality of service. In the country as a whole about 43% of the total population and 34% of the people living in communities of more than 100 population have no access to potable water supply services.

In the rural areas, the shortage is much worse. Argentine official statistical data show that 49% of people living in communities of 500 to 10,000 population lack water service. Among communities of 100 to 500 population, 84% lack water service.

These limitations in population coverage are intensified by dissimilarities in the quality of service. Although the water supply system of the Federal Capital districts supplies somewhat more than 800 liters of water daily per connected person, many water services in rural areas supply only 100 liters of water daily through residential service connections and less than 20 liters daily at public water outlets.

In the Buenos Aires conglomeration, or Greater Buenos Aires, which comprises the city of Buenos Aires and 19 provincial districts, the population of the urban area (3 million persons) is 100% served whereas the suburban area (5.1 million persons) is only 47% covered, that is, more than 2.7 million persons lack water services.

The system that supplies this area has sufficient impounding and treatment capacity, but it also has considerable limitations in distribution system capacity. These conditions have brought about poor service and very low pressures in large areas and left the vast areas surrounding the city without

any service at all. Residential service connections are only 4.3% metered. Furthermore, the water rate charge does not allow for actual consumption, thereby encouraging the excessive use and waste of water.

Besides these physical limitations, urban water service was affected by the poor rate-schedule scheme which was insufficient to cover the operating costs and provide for the investments necessary to expand the system. Lack of system expansion and population growth have increased the physical limitations of the service, whereas insufficient revenues have caused the financial deterioration of the company which has had to depend on government subsidies to continue its operations.

According to a study done by the Argentine Government with a view to revising the rate-schedule scheme, up until the month of June 1976, the revenues of the OSN provided for only 29% of the company's operating and maintenance costs. Therefore in accordance with the government's policy of self-financing of public utility companies, a 15% cumulative monthly increase in the current rates was ordered, which remained in effect until July 1977, at which time it was reduced to 6% monthly. Applied over the last 12 months that increase meant arise in rate charges of 435%. <sup>1/</sup> With that increase, the company had by December 1976 covered 80% of the costs in the whole fiscal year, it being estimated that at the end of 1977 it would cover the total annual operating costs. According to OSN estimates, as of 1978 the increase would not only allow operating costs to be covered but also debt servicing, yielding surpluses for investment in general programs as well.

The expansion program of the Buenos Aires system, which is part of the La Matanza Project, calls for the supplying of water in the area up until the year 2010 at which time there would be a population of 12 million persons.

The La Matanza district is a suburb of Buenos Aires which includes the places named San Justo, Ramos Mejía, Tablada, Villa Madero, Villa Luzuriaga, Tapiales, Aldo Bonzi, Isidro Casanova, Virrey del Pino, 20 de Junio, Ciudad Evita, Rafael Castillo and Gregorio Lafarrete. It comprises about 34,000 hectares. Of its 900,000 population, 74% are low-income persons. The residential area is served by a well-water supplied system, whereas the surrounding area has no public water service at all. That area supplies its water needs through private wells, which are often contaminated or are highly saline; through accumulation of rainwater in storage tanks and cisterns; through carrying water from public taps and through delivery service in water tank trunks.

## 2. The Program

The purpose of the program which the loans would assist in financing is as follows:

<sup>1/</sup> Over the same period retail prices rose 149% and basic wages only 61%.



- (i) to extend water supply services to the urban and rural population of Argentina; and
- (ii) to foster rational water use through massive installation of water meters in urban service areas.

The program consists of two subprograms: the rural subprogram and the urban subprogram. Both programs form part of the National Plan that the Argentine Government has been carrying out in stages to extend and improve the country's drinking water supply services.

#### A. Rural Subprogram

The subprogram calls for the construction of about 226 individual water supply systems for 278 rural communities of 100 to 10,000 population, having a total estimated population of 400,000 persons and a design population in future of 520,000 persons. The work-measures called for make up the third stage of the National Potable Water Supply and Rural Sanitation Program (SNAP), which is a continuation of the programs financed through loans 114/TF-AR and 302/SF-AR. Smaller inland populations would be benefited that do not now have adequate drinking water supply services. Annual average income per person in all of the communities benefited is less than US\$600 equivalent yearly.

Costs in the systems with residential service connections include the section of pipes between the public main and the meter box as well an inside section about 15 meters long which ends in pressure-regulating tank to be installed in all housing units, and a service drop pipe ending in a faucet from which the user may extend his inside plumbing installation. These costs would be financed with the loan resources.

Operation and management of the water supply systems to be constructed under the program will be vested in rural community organizations which would be organized as cooperatives to that end. A typical cooperative to operate these systems consists of share-holding members who, meeting regularly, appoint a managing committee that is governed by a trustee.

The staff of each community organization varies with the system needs. Experience with the operation of systems constructed through previous loans has proved satisfactory. The subprogram contains a technical cooperation component for training in operation and management tasks of personnel who will be in charge of managing the systems.

#### B. Urban Subprogram

This is the third stage of the potable water supply system plan of the Buenos Aires conglomeration. The first and second stages of this plan were partly financed through loans 43/SF-AR, 86/TF-AR and 70/SF-AR. The purpose of the subprogram would be:

- (i) to extend the distribution system into the suburban districts of La Matanza, in Buenos Aires Province, to supply potable water to a present-day population of 700,000 persons and a future population of 1,500,000 persons. As much as 74% of the population in the target sector is made up of low-income laborers. The per capita average income of this sector is about US\$620 per annum. The program resources would finance the residential service connections, including meters and the installation thereof.
- (ii) to install 400,000 water meters, of which about 100,000 would be installed in the La Matanza area. With these meters the OSN would have, at the end of the program, completed the installation and setting in operation of 545,000 meters that would be the basis for instituting the rate-schedule scheme for metered water use. These metered service connections are expected to cover in the Buenos Aires conglomeration and in the principal cities of Argentina all industrial and commercial users, private customers with unusually high levels of consumption (residences with swimming pools and/or gardens), and an important part of regular private water use.

The La Matanza project comprises installation of the following work-measures:

- (i) Termination of the Paitovi-Floresta of the underground river section (tunnel) that will convey treated water from the Bernal Station to the Floresta boosting station. This section is now under construction and will be financed exclusively with local funds.
- (ii) Extension of the underground river (canal) from the Floresta Station to La Matanza.
- (iii) Civil works and equipment of the La Matanza lift station.
- (iv) Civil works and equipment of the La Matanza lift station.
- (v) Pressure pipelines from the lift station to the existing pressure-regulating elevated tanks.
- (vi) Supply and installation of about 78 km of water mains.
- (vii) Supply and installation of about 500 km of distribution pipe.
- (viii) Installation of about 100,000 residential service connections including water meters.

Each subprogram would be installed separately and independently, in conformity with the individual conditions specified. The National Rural Water Supply and Sanitation Service (SNAP) would be in charge of the Rural Subprogram. To install the Urban Subprogram, the Argentine Government has appointed the National Savings and Insurance Fund - CNAS (Caja Nacional de Ahorros y Seguros) as financial agent for the management and transfer of the resources allocated to the subprogram; and the Sanitary Works Enterprise of the Nation - OSN (Empresa de Obras Sanitarias de la Nación) as executing agency of the works financed. Both subprograms would be installed over a period of 4 years.

The Rural Subprogram would start with the projects in the representative sample. The sample, consisting of 91 systems to serve 126 communities, has plans and specifications now available so that the invitations for bids may begin immediately. The works to be let individually are in packages of three or four individual works located close together in the same province.

The investigation of water sources and the preparation of 135 additional projects will be done on contract with engineers and/or specialized national firms. The remaining designs are scheduled for completion in the first year in the life of the loan contract; hence this activity will in no way restrict the construction program.

Construction and designs of all components, except the distribution networks, are ready for the La Matanza project. The main pipe networks have been designed for an average demand of 500 liters per person daily, which was brought down to 350 liters per person daily in view of the proposed use of water meters. The company has initiated the design of the main networks, and the final design of the distribution networks may be finished easily in no more than six months.

### 3. Cost and Financing of the Program

The total cost of the program amounts to US\$197.5 million equivalent, of which amount US\$67 million would be for the Rural Subprogram and US\$130.5 million for the Urban Subprogram. The direct and indirect external costs amount to US\$31.5 million equivalent. Details of these costs, allocated by subprogram, are summarized in the following table:

0 10 20 30 40 50 60 70 80 90 100

100

The program would be financed as follows:

(In thousands of US\$ or equivalent)

|                            | <u>Origin of Currency</u> |                       | <u>Use of Currency</u>  |                       | <u>Total</u> | <u>%</u> |
|----------------------------|---------------------------|-----------------------|-------------------------|-----------------------|--------------|----------|
|                            | <u>Foreign Exchange</u>   | <u>Local Currency</u> | <u>Foreign Exchange</u> | <u>Local Currency</u> |              |          |
| A. <u>Rural Subprogram</u> |                           |                       |                         |                       |              |          |
| IDB: OC                    | 10,112                    | -                     | 10,112                  | -                     | 10,112       | 15       |
| FSO                        | -                         | 26,888                | -                       | 26,888                | 26,888       | 40       |
| SNAP                       | -                         | 13,300                | 150                     | 13,150                | 13,300       | 20       |
| SPAR                       | -                         | 6,600                 | -                       | 6,600                 | 6,600        | 10       |
| Community contribution     | -                         | 10,100                | -                       | 10,100                | 10,100       | 15       |
| Subtotal                   | 10,112                    | 56,888                | 10,262                  | 56,738                | 67,000       | 100      |
| B. <u>Urban Subprogram</u> |                           |                       |                         |                       |              |          |
| IDB: OC                    | 20,888                    | -                     | 20,888                  | -                     | 20,888       | 16       |
| FSO                        | -                         | 25,112                | -                       | 25,112                | 25,112       | 19       |
| CNAS                       | -                         | 34,000                | 350                     | 33,650                | 34,000       | 26       |
| OSN                        | -                         | 50,500                | -                       | 50,500                | 50,500       | 39       |
| Subtotal                   | 20,888                    | 109,612               | 21,238                  | 109,262               | 130,500      | 100      |
| Total                      | 31,000                    | 166,500               | 31,500                  | 166,000               | 197,500      |          |
| C. <u>Total Program</u>    |                           |                       |                         |                       |              |          |
| IDB: OC                    | 31,000                    | -                     | 31,000                  | -                     | 31,000       | 16       |
| FSO                        | -                         | 52,000                | -                       | 52,000                | 52,000       | 26       |
| Local funds                | -                         | 114,500               | 500                     | 114,000               | 114,500      | 58       |
| Total                      | 31,000                    | 166,500               | 31,500                  | 166,000               | 197,500      | 100      |

The Bank would grant two loans to the Argentine Nation: one from the ordinary capital in the amount of US\$31 million equivalent to be disbursed in foreign exchange; the other from the Fund for Special Operations in the amount of US\$52 million equivalent to be disbursed in Argentine pesos.

The local contribution to the program would amount to US\$114,500,000 equivalent, that is, 57% of the total projected cost.

The part allocable to the Rural Subprogram: US\$30,000,000 equivalent would be provided by the Argentine Nation, the participating provinces, and the beneficiary community organizations, and allocated approximately as follows:

|                         |                         |
|-------------------------|-------------------------|
| Argentine Nation        | US\$13,300,000 - (20%)  |
| Provinces               | US\$ 6,600,000 - (10%)  |
| Community organizations | US\$10,100,000 - (15%). |

The contribution in the amount of US\$84,500,000 equivalent for the Urban Subprogram would be provided by the Argentine Nation through appropriations to the OSN budget in the amount of as much as US\$50,500,000 equivalent, approximately, and by the National Savings and Insurance Fund, which, using its own resources, would grant the OSN a loan of US\$34,000,000 equivalent.

#### 4. Execution of Previous Loans

The IDB has made the following loans for financing water supply projects in Argentina:

- (i) Programs in the rural sector: Loans 114/TF-AR and 302/SF-AR.
- (ii) Projects in the urban sector: Loans 43/SF-AR, 86/TF-AR and 70/SF-AR.

Loan 144/TF-AR. This loan was approved on August 12, 1965. The loan contract was signed on August 26, 1965. The estimated cost of the program was US\$10 million, of which amount the loan provided for up to US\$5 million. The loan proceeds were disbursed in full by December 1970. The program works were completed in the second half of 1972. Under this program 214 water supply systems were constructed for the benefit of a present-day population of 256,000 persons. Adequate capacity to supply a future population of 449,000 persons was provided in the designs. The actual cost of the program was US\$15.8 million. The cost overruns were defrayed through additional local contributions. Construction work measures were adequate to meet the requirements and needs of the beneficiaries. The users are paying the water bills promptly and the water supply service has gained in public acceptance as evidenced by the many applications for new system connections. The rates applied adequately meet the requirements of the Bank. The program served as a framework for organizing and training personnel from the national and provincial organizations and from the community agencies that participated in its execution. The program provided for the use of plastic pipe in the distribution systems and for regulators and water meters, which in Argentina, had been used only in exceptional cases. As part of the program, additional studies were completed for works in more than 80 communities that would serve as a basis for a second stage project. Continuity was provided for by the Bank through approval of loan 302/SF-AR.

Loan 302/SF-AR. This loan was approved on July 28, 1971. The contract was signed on October 6, 1971. The total cost of the program is estimated at US\$25 million of which amount the loan accounted for US\$12 million. Through the program 194 water supply systems were constructed for a beneficiary population of 327,565 persons, which is 26% greater than the targeted number. Program work advance is 99%. Only three work-measures are now in the final construction stage. There are enough funds available in the program to finance these works, which are scheduled for completion next September. In the systems 59,000 residential service connections were installed of which 47,420 were metered service connections. The actual cost was US\$31,906,000, that is, 19% over the original estimate. The cost overruns were defrayed through additional local contributions.

The beneficiary communities have provided their allotments in satisfactory fashion and have accepted the rate schedules covering operating and maintenance expenses and proportional servicing of the loan. The delays in appropriations to the budgets of SNAP as well as of SPAR have on several occasions affected the program cash flow for timely payment of work in progress and were partly responsible for the delay that required an extension to the term allowed for completion of the program. The loan contained a technical cooperation component, which was provided in satisfactory fashion, for strengthening the administrative and technical capabilities of the participating organizations. Training was provided for 421 professional and technical staff. The effectiveness of the courses of instruction was evident in the operating efficiency of the systems put into service. As part of the program 130 additional projects were prepared and used as the basis for program continuity.

Loans 43/SF-AR and 86/TF-AR. These loans were approved on July 30, 1964. The contracts were signed on October 7, 1964. The purpose of these was to improve the drinking water supply of the Avellaneda and Lanus communities with the construction of three basic work-measures: (i) the Avellaneda to Lanus underground river channel; (ii) the Lanus lift station; and (iii) the Avellaneda distribution system.

The project work measures were completed in February 1972, the last disbursement from those loans having been made in December 1971. The project was installed in 7 years and 4 months, which was 4 years beyond the original schedule. The main cause of the delay was the effect of acute inflation on construction costs which made it necessary to alter the contract bases, besides making it difficult for the complementary local contribution to be provided on time. Even though problems of inflation persist in Argentina, a scheme providing for periodic adjustment of contracts awarded through invitations for bids has been adopted and, as a general rule, the highest priority is given to government allotments to projects financed through loans from international organizations. This would provide for more efficient execution of works financed by the Bank. The total cost of the project, which was first estimated at US\$10,500,000, cost US\$17,739,000 upon completion. The cost overrun resulting was defrayed through additional local contributions to those set forth in the loan contract. The project goals in

respect of the supplied population were accomplished, service having been provided for 180,000 persons and supply improved for 620,000 persons.

Loan 70/SF-AR. This loan was approved on December 9, 1965. The loan contract was signed on June 10, 1966. The project comprised the following work-measures:

- Construction of a treatment plant at Bernal to supply the Lomas de Zamora, Almirante Brown, Quilmes, Avellaneda, Lanús and Florencio Varela subdivisions of the Buenos Aires conglomeration.
- Construction of intake works at Tucumán, installation of a treatment plant, and construction of two water supply systems.
- Jujuy: construction of intake works, installation of a treatment plant, and construction of water supply systems.
- Córdoba, construction of water supply systems.

Mendoza, construction of intake works, installation of a treatment plant, and construction of a water supply system.

The disbursement period was three years over the original schedule. The loan was disbursed in full by June 30, 1974, leaving some works in progress to be financed entirely by the borrower. As of December 31, 1976 the following works were still under construction:

(a) Buenos Aires Conglomeration:

(i) The pumping station from the Treatment Plant at Bernal was 83% advanced in civil works and 62% advanced in installation of electro-mechanical facilities.

(ii) The Bernal-Lanús underground river channel was 94.2% advanced.

(b) Tucumán: El Cadillal treatment facility. The basic work was completed and is now in operation at an output of 40,000 cubic meters of water daily. Work is being completed on the intake facilities, perimeter fencing, lighting, supervisor's housing, and maintenance workshops, all to be completed by July 1977.

The program as a whole is 98% advanced. While the negotiations for the new program were under way, the Ministry of the Economy gave satisfactory evidence that the National Government had allocated sufficient resources for the completion of the works, scheduled to take place before the end of 1977.

In the accomplishment of the programs financed through loans 43/SF-AR, 86/TF-AR and 70/SF-AR difficulties were faced in setting in Buenos Aires and in the larger cities of the interior a rate-schedule policy and a metered water use policy consistent with the requirements of the contracts entered into with



the Bank. The absence of a suitable return on investment in the systems has caused substantial operating deficits which, though they were covered by the government's contributions, have led to considerable delays in the availability of the necessary counterpart resources and have caused a slowdown in the normal pace of project execution.

Through rate increases applied since June 1976, of the eight localities in which the Bank financed programs for extension of water supply systems (Loans 43/SF-AR and 70/SF-AR), Avellaneda at the end of 1976 had already posted a surplus. With the increase in rates now in effect, Mendoza, Córdoba, Lomas de Zamora and Lanús would go over the break-even point in the course of 1977, whereas Jujuy, Tucumán and Almirante Brown would do so in the following year.

## 5. Special Aspects

### (i) Force Account Work in the Rural Subprogram

In connection with Loan 302/SF-AR it was found that in some provinces, particularly in connection with small-scale works in areas of difficult terrain, private contractors have shown no interest in presenting bids pursuant to invitations to bid, for which reason the works had to be done by force account. It is expected that similar circumstances will recur with the new program, for which reason the loan contract will allow, with express authorization from the Bank, work to be done by force account in duly justified cases. The total amount of work to be done by force account may not exceed US\$4 million equivalent [see resolutions, paragraphs 8 (i)7].

### (ii) Urban Rate Schedules and Meters

In support of the efforts being made by the Argentine Government to place the rates charged for public services, among them the drinking water supply rates, at a level that will yield a suitable rate of return, the loan contracts would include a series of requirements to achieve the mass installation of water meters, the establishment of rate-schedules earning on the basis of actual use, and the application in the area of La Matanza of the parameters proposed for the setting of rates. These conditions are given in paragraph 8(g) of the resolutions as well as in paragraphs 1(a), (b) and (g) of the recommendations.

### (iii) Use of the Fund for Special Operations

The projects to be carried out through the program are intended for the benefit of the low-income population sectors of Argentina. The rural subprogram would benefit a population of about 4,000 persons in rural areas that now lack drinking water supply services. The average annual income per person of all the beneficiary communities is less than US\$600 equivalent per annum. The facilities to be installed will contribute to improving the

public health status and foster the development of a spirit of cooperation as a result of their assigned share in the financing of the projects and in the management and operation of the systems built.

The area to benefit from the La Matanza urban project is characterized by a large concentration of working population who have migrated to the capital city in search of better opportunities, and who, because of their limited means, have located in this area in which the cost of land is fairly low because of the lack services. As much as 74% of the population of this sector consists of workers in low-level jobs. Average annual income of a worker in the area is US\$1,240, whereas the income of a worker family of four persons, with two working members, is US\$2,480; this would be an average income per person of about US\$620. The project would directly benefit this population segment since the central urban area now has a well-supplied water service and industry in the area has its own water supply systems.

The FSO funds to be used for the program would be disbursed exclusively in Argentine national currency.

PROPOSED RESOLUTION

ARGENTINA. LOAN /IC-AR TO THE ARGENTINE NATION  
(Rural and Urban Water Supply Program)

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 Argentine Nation, as borrower, for the purpose of granting it financing to cooperate in the execution of a Rural and Urban Water Supply Program through a rural subprogram and an urban subprogram. This financing shall be subject substantially to the following conditions:

1. Amount and Currencies: Up to US\$31,000,000, or the equivalent in other currencies which are part of the inter-regional capital resources of the Bank, to pay for goods and services acquired through international competition and for such other purposes as may be specified in the loan contract. Payments of amortization and interest shall be effected in the currencies disbursed.
2. Source of Funds: The inter-regional capital resources of the Bank.
3. Guarantee: The general responsibility of the borrower.
4. Credit Fee: 1-1/4% per annum on the undisbursed portion of the financing, commencing to accrue 60 days after the date of the contract and payable in dollars of the United States of America on the same dates as the interest.
5. Amortization: The borrower shall amortize the loan in a period of 20 years from the date of the contract, by means of 32 consecutive, semiannual and, so far as possible, equal installments. The first installment shall be paid 4-1/2 years after such date.
6. Interest: 8% per annum, payable semiannually on principal amounts outstanding. The first payment shall be made 6 months after the date of the contract.

7. Physical Initiation and Disbursement: Physical initiation of all the works included in the program shall take place within a period of 2 years from the effective date of the contract, and total disbursement of the financing shall be made within a period of 4 years from the effective date of the contract.
8. Special Conditions:
  - (a) The resources of the loan shall be utilized in their entirety by the borrower through the Caja Nacional de Ahorros y Seguros (CNAS), which shall act as financial agent, and the Empresa de Obras Sanitarias de la Nación (OSN), which shall act as executing agency in the urban subprogram and, in the rural subprogram, through the Servicio Nacional de Agua Potable (SNAP). If modifications in the legal provisions or the basic regulations concerning the borrower, CNAS, OSN and/or SNAP are approved which, in the opinion of the Bank, may substantially affect the program, the Bank may take such measures as it deems appropriate in accordance with provisions to be set forth in the loan contract.
  - (b) The resources of the loan, together with those of Loan /SF-AR, shall be used to participate in the execution of a program of not less than the equivalent of US\$197,500,000. Consequently, the loan contracts shall contain such provisions as the Bank deems appropriate to ensure that such national resources as may be necessary, in addition to the two loans, for the complete execution of the program shall be duly provided, in an amount of not less than the equivalent of US\$114,500,000, in accordance with a schedule of investments satisfactory to the Bank.
  - (c) Up to the equivalent of US\$1,000,000 of the resources of the financing may be used to cover expenditures made in the rural subprogram before the date of the contract but after December 1, 1976, provided that requirements substantially similar to those set forth in this resolution and in the loan contract have been fulfilled.
  - (d) Prior to the first disbursement for the rural subprogram of the loan, the borrower shall comply with the following to the satisfaction of the Bank: (i) demonstrate that it has established a mechanism for the direct transfer of the resources of the loan to SNAP, and (ii) present to the Bank the plan of recruitment drawn up by SNAP for increasing its technical and administrative staff for execution of the rural subprogram, and evidence that it has completed at least 80% of the staff for the five existing regional delegations.

- (e) Prior to the first disbursement for the urban subprogram of the loan, the borrower shall demonstrate to the satisfaction of the Bank that: (i) an agreement between the borrower and CNAS has been signed or that a suitable mechanism has been adopted, for the transfer of the loan resources assigned to the urban subprogram; (ii) an agreement has been signed between the CNAS and OSN for the transfer to the latter of the resources of the loan in financial terms and conditions similar to those of the Bank loan, provided that CNAS may charge a 1% management fee as part of the interest; (iii) an agreement has been signed between CNAS and OSN whereby the former grants to the latter, with funds of its own, subject to conditions of financing and terms acceptable to the Bank, a loan of not less than the equivalent of US\$34,000,000 to contribute to the financing of the La Matanza urban subprogram; and (iv) evidence that the Bernal-lanús tunnel and the Bernal Step-up Station have been completed and have entered into service.
- (f) The borrower shall take appropriate measures acceptable to the Bank so that the rates for water supply services of specific systems related to the financing which are constructed as part of the rural subprogram produce revenues at least sufficient to cover all operating expenses of the respective systems, including those related to administration, operation, maintenance and depreciation.
- (g) The borrower shall take appropriate measures acceptable to the Bank so that the rates for water supply services for the urban La Matanza system: (i) produce revenues at least sufficient to cover all operating expenses of the system, including those related to administration, operation, maintenance and depreciation; and (ii) if the flow of funds available from the foregoing plus any return on equity are not sufficient to cover the timely amortization of the loan, generate such additional revenues as shall be needed for this purpose.
- (h) In the acquisition of machinery, equipment and other materials for the program and in the awarding of construction contracts, the system of public bids shall be followed in each case in which the value of such acquisition or contracts exceeds the equivalent of US\$100,000. The bidding shall be subject to the procedures that shall be included as an annex to the loan contract.
- (i) The provisions of (h) above notwithstanding, the Bank may waive the public bidding requirement for some works in the rural subprogram provided that they are to be executed by

force account, that the total amount thereof does not exceed the equivalent of US\$4,000,000 and that SNAP shows the advisability of carrying out the works by force account for reasons pertaining to their particular characteristics or location.

- (j) The Bank shall establish such inspection procedures as it deems necessary to ensure the satisfactory execution of both subprograms, and the borrower and the executing agencies shall extend all cooperation which is required for the most effective accomplishment of this purpose. Of the amount of the financing, the equivalent of US\$310,000 shall be allocated for credit to the general income accounts of the Bank to meet expenses of general inspection and supervision.

PROPOSED RESOLUTION

ARGENTINA. LOAN /SF-AR TO THE ARGENTINE NATION  
(Rural and Urban Water Supply Program)

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 Argentine Nation, as borrower, for the purpose of granting it financing to cooperate in the execution of a Rural and Urban Water Supply Program through a rural subprogram and an urban subprogram. This financing shall be subject substantially to the following conditions:

1. Amount and Currencies: Up to the equivalent of US\$52,000,000, which are part of the Fund for Special Operations, to be disbursed in Argentine pesos for local costs and for such other purposes as may be specified in the loan contract. Payments of amortization and interest shall be effected in Argentine pesos in their equivalent in dollars.
2. Source of Funds: The Fund for Special Operations.
3. Guarantee: The general responsibility of the borrower.
4. Amortization: The borrower shall amortize the loan in a period of 25 years from the date of the contract, by means of 42 equal and consecutive semiannual installments. The first installment shall be paid 4-1/2 years after the date of the contract.
5. Interest: 3% per annum, payable semiannually on principal amounts outstanding. The first payment shall be made 6 months after the date of the contract.
6. Physical Initiation and Disbursement: Physical initiation of all the projects included in the program shall take place within a period of 2 years from the effective date of the contract, and total disbursement of the financing shall be made within a period of 4 years from the effective date of the contract.

7. Special Conditions:

- (a) The resources of the loan shall be utilized in their entirety by the borrower through the Caja Nacional de Ahorros y Seguros (CNAS), which shall act as financial agent, and the Empresa de Obras Sanitarias de la Nación (OSN), which shall act as executing agency in the urban subprogram and, in the rural subprogram, through the Servicio Nacional de Agua Potable (SNAP). If modifications in the legal provisions or the basic regulations concerning the borrower, CNAS, OSN and/or SNAP are approved which, in the opinion of the Bank, may substantially affect the program, the Bank may take such measures as it deems appropriate in accordance with provisions to be set forth in the loan contract.
- (b) The resources of the loan, together with those of Loan /IC-AR, shall be used to participate in the execution of a program of not less than the equivalent of US\$197,500,000. Consequently, the loan contracts shall contain such provisions as the Bank deems appropriate to ensure that such national resources as may be necessary, in addition to the two loans, for the complete execution of the program shall be duly provided, in an amount of not less than the equivalent of US\$114,500,000, in accordance with a schedule of investments satisfactory to the Bank.
- (c) Up to the equivalent of US\$1,000,000 of the resources of the financing may be used to cover expenditures made in the rural subprogram before the date of the contract but after December 1, 1976, provided that requirements substantially similar to those set forth in this resolution and in the loan contract have been fulfilled.
- (d) Prior to the first disbursement for the rural subprogram of the loan, the borrower shall comply with the following to the satisfaction of the Bank: (i) demonstrate that it has established a mechanism for the direct transfer of the resources of the loan to SNAP, and (ii) present to the Bank the plan of recruitment drawn up by SNAP for increasing its technical and administrative staff for execution of the rural subprogram, and evidence that it has completed at least 80% of the staff for the five existing regional delegations.
- (e) Prior to the first disbursement for the urban subprogram of the loan, the borrower shall demonstrate to the satisfaction of the Bank that: (i) an agreement between the borrower and CNS has been signed or that a suitable mechanism has been adopted for the transfer of the loan resources assigned to the urban subprogram; (ii) an agreement has



been signed between the CNAS and OSN for the transfer to the latter of the resources of the loan in financial terms and conditions similar to those of the Bank loan, provided that CNAS may charge a 1% management fee as part of the interest; (iii) an agreement has been signed between CNAS and OSN whereby the former grants to the latter, with funds of its own, subject to conditions of financing and terms acceptable to the Bank, a loan of not less than the equivalent of US\$34,000,000 to contribute to the financing of the La Matanza urban subprogram; and (iv) evidence that the Bernal-Lanús tunnel and the Bernal Step-up Station have been completed and have entered into service.

- (f) The borrower shall take appropriate measures acceptable to the Bank so that the rates for water supply services of specific systems related to the financing which are constructed as part of the rural subprogram produce revenues at least sufficient to cover all operating expenses of the respective systems, including those related to administration, operation, maintenance and depreciation.
- (g) The borrower shall take appropriate measures acceptable to the Bank so that the rates for water supply services for the urban La Matanza system: (i) produce revenues at least sufficient to cover all operating expenses of the system, including those related to administration, operation, maintenance and depreciation; and (ii) if the flow of funds available from the foregoing plus any return on equity are not sufficient to cover the timely amortization of the loan, generate such additional revenues as shall be needed for this purpose.
- (h) In the acquisition of machinery, equipment and other materials for the program and in the awarding of construction contracts, the system of public bids shall be followed in each case in which the value of such acquisition or contracts exceeds the equivalent of US\$100,000. The bidding shall be subject to the procedures that shall be included as an annex to the loan contract.
- (i) The provisions of (h) above notwithstanding, the Bank may waive the public bidding requirement for some works in the rural subprogram provided that they are to be executed by force account, that the total amount thereof does not exceed the equivalent of US\$4,000,000 and that SNAP shows the advisability of carrying out the works by force account for reasons pertaining to their particular characteristics or location.

- (j) The Bank shall establish such inspection procedures as it deems necessary to ensure the satisfactory execution of both subprograms, and the borrower and the executing agencies shall extend all cooperation which is required for the most effective accomplishment of this purpose. Of the amount of the financing, the equivalent of US\$520,000 shall be allocated for credit to the general income accounts of the Bank to meet expenses of general inspection and supervision.

RECOMMENDATIONS

1. It is recommended that, in addition to the conditions set forth in the proposed resolutions, the following conditions to be complied with to the satisfaction of the Bank, be included in the loan contracts:
  - (a) The borrower shall take appropriate measures so that: (i) the work for completion of the Paitoví-Floresta Underground River project will advance at a rate of at least 1,000 meters per six-month period. Should this six-month target not be achieved, the Bank may require the application of such measures as it deems appropriate for achieving such minimum rate of progress; (ii) prior to the end of the third year from the date of the loan contracts there shall have been installed 120,000 water meters of the three hundred thousand referred to under the meter installation plan of paragraph I(ii)(b) of Appendix IV; and (iii) prior to the end of the fourth year from such date, there shall have been installed the remaining 180,000 water meters.
  - (b) Within 12 months after the date of the loan contracts, OSN shall present to the Bank:
    - (i) A report on installation in 1978 of the 40,000 meters indicated in the meter installation plan of subparagraph I(ii)(b) of Appendix IV;
    - (ii) The schedule of rates for metered consumption that would be applied (a) in the La Matanza area, where it shall enter into effect prior to the inauguration of the works of the urban subprogram, and (b) in the other metered areas, where it shall enter into effect prior to January 1, 1979; and
    - (iii) evidence that the borrower has proceeded to revalue the fixed assets of the La Matanza District.
  - (c) Unless the Bank shall otherwise consent, the borrower shall present to the Bank prior to each call for public bids: (i) the general plans, specifications, budget, specific bidding requirements and other documents necessary for the call for bids, and (ii) in the case of construction, evidence that it is in legal possession of the lands needed for the respective construction and/or of the pertinent easements or rights.

- (d) Within 2 years after the date of the loan contract, and always before the call for bids for each system included in the rural subprogram, the following shall be presented to the Bank, in addition to that stipulated in (c) above;
  - (i) the agreement between the respective Servicio Provincial de Agua Potable (SPAR) and the corresponding community agency for construction of the system, such agreement to state the contribution by the community and by the SPAR and the basis for the subsequent operation and administration of the system and for recruitment of the technical personnel required for those purposes.
  - (ii) evidence that there is an appropriate water source for the system and, if the source is underground, the hydrologic study performed on the basis of test wells.
- (e) Within the third and fifth years after the last disbursement of the financing, the executing agencies shall present a report on the socioeconomic effects stemming from the execution of the program, such effects to be measured in accordance with a methodology to be included in Annex A of the loan contract.
- (f) The borrower shall undertake that the works financed with funds of the loans will be administered, operated and maintained in accordance with standards acceptable to the Bank. For purposes of this undertaking, the borrower shall present to the Bank, within the first 90 days of each calendar year and for at least 10 years after reception of the works: (i) an annual plan for maintenance of the works; and (ii) a detailed report on the status and conditions of administration, operation and maintenance during the previous year. Special attention shall be given to the control of the quality of water supplied to the users.
- (g) The borrower shall agree: (i) to take, as soon as possible, whatever steps may be necessary to correct any deficient conditions noted in the reports referred to in (f) above, and (ii) to increase the current rates of the La Matanza District by at least 25% per year, in real terms, beginning on January 1, 1978, in order that when the new system goes into operation the rate then in effect will conform to the provisions set forth in the respective resolutions.
- (h) The Bank may recognize, as part of the local counterpart contribution to the rural subprogram, expenditures made by the borrower between December 1, 1976, and the date of the loan contracts, up to a total amount equivalent to US\$2,000,000, provided that with respect to such expenditures, requirements

substantially similar to those set forth in the loan contract have been fulfilled.

- (i) Up to the equivalent of US\$100.000 of the resources of the loan from the Fund for Special Operations shall be used for the technical cooperation in accordance with the plan of operations which appears as Appendix V of this document.

2. Beginning in 1978 and during the life of the Loans, the financial statements of the subprograms shall be presented, certified by the Contraduría General de la Nación in accordance with requirements satisfactory to the Bank and within such periods as may be agreed upon.

3. An annex substantially similar in content to Appendices IV and V of this document shall be included in each of the loan contracts.

DESCRIPTION OF PROGRAM

(Annex A to Loan Contract)

I. Program Description

The Program consists of two subprograms which are to be carried out independently, each according to the conditions stipulated for it. These subprograms are:

- (i) Rural Subprogram, consisting of the construction of approximately 226 systems to supply potable water to 270 rural localities. Approximately 170 localities would be provided with local systems including house connections, 60 localities would be supplied thorough public taps or fountains, and 40 localities through regional water systems. The Subprogram would benefit an estimated 400,000 inhabitants and would be carried out by the Servicio Nacional de Agua Potable y Saneamiento Rural (SNAP).
- (ii) Urban Subprogram, which includes construction of the La Matanza project and implementation of the Meter Installation Plan. The Caja Nacional de Ahorros y Seguro would act as financial agent in the Program, with responsibility for transferring the Loan funds assigned by the Bank to the project. The Empresa de Obras Sanitarias de la Nación would be the executing agency for the work being financed.
  - (a) La Matanza Project. Calls for construction of a system to distribute water to the suburban district of La Matanza to supply a present population of 700,000 inhabitants, and installation of metered house connections for approximately 70% of the present population. It includes the following works: (i) completion of the Paitoví-Floresta River underground project, which is being financed with local funds; (ii) construction of the underground river Floresta-La Matanza project; (iii) construction of the La Matanza step-up station; (iv) installation of pressure lines, mains and landfill, and (v) installation of approximately 100,000 metered house connections.
  - (b) Meter Installation Plan: This plan includes the installation of 440,000 water meters in the metropolitan area of Buenos Aires and in other cities of the country tending to cover, progressively industrial and commercial

connections, high consumption home connection, and the homes of normal consumption. This plan shall be executed as follows:

- (i) 40,000 meters shall be installed by OSN with resources other than those of the Program in the metropolitan area of Buenos Aires during the year 1978.
- (ii) 100,000 meters shall be installed in the La Matanza area as indicated under the preceding paragraph (a), and
- (iii) 300,000 additional meters shall be installed in the metropolitan area of Buenos Aires and in other principal cities of the country.

## II. Program Costs and Financing Plan

The total cost of the Program amounts to the equivalent of US\$197.5 million, of which US\$67.0 million correspond to the Rural Subprogram and US\$130.5 million to the Urban Subprogram. The following table gives a breakdown of these costs and the financing plan by subprograms and investment categories.

(In thousands or equivalent)

|                                                  | B A N K        |                 |                |           | Local Resources |                 |                |           |     |
|--------------------------------------------------|----------------|-----------------|----------------|-----------|-----------------|-----------------|----------------|-----------|-----|
|                                                  | IC             |                 | FSO            |           |                 |                 |                |           |     |
|                                                  | Foreign Direct | Exchange Indir. | Local Currency | Sub-total | Foreign Direct  | Exchange Indir. | Local Currency | Sub-total | Tot |
| RURAL SUBPROGRAM                                 |                |                 |                |           |                 |                 |                |           |     |
| Engineering & Administration                     | -              | -               | 1 620          | 1 620     | -               | -               | 13 380         | 13 380    | 1   |
| 1 Studies and projects                           | -              | -               | 1 620          | -         | -               | -               | 780            | -         |     |
| 2 Administración y supervision                   | -              | -               | -              | -         | -               | -               | 12 600         | -         |     |
| Direct Costs                                     | -              | 8 500           | 22 870         | 31 370    | -               | -               | 16 030         | 16 030    | 4   |
| 1 Works                                          | -              | 8 000           | 22 330         | -         | -               | -               | 15 670         | -         |     |
| 2 Drilling equipment                             | -              | 500             | 540            | -         | -               | -               | 360            | -         |     |
| Financial Costs                                  | 1 612          | -               | 2 140          | 3 790     | 150             | -               | -              | 150       |     |
| 1 Interests and fees                             | 1 510          | -               | 1 910          | -         | 150             | -               | -              | -         |     |
| 2 Supervision                                    | 102            | -               | 268            | -         | -               | -               | -              | -         |     |
| Associated Costs                                 | -              | -               | 220            | 220       | -               | -               | 440            | 440       |     |
| 1 Vehicles                                       | -              | -               | 120            | -         | -               | -               | 130            | -         |     |
| 2 Land                                           | -              | -               | -              | -         | -               | -               | 270            | -         |     |
| 3 Technical cooperation                          | -              | -               | 100            | -         | -               | -               | 40             | -         |     |
| Subtotal                                         | 1 612          | 8 500           | 26 888         | 37 000    | 150             | -               | 29 850         | 30 000    | 6   |
| URBAN SUBPROGRAM                                 |                |                 |                |           |                 |                 |                |           |     |
| Engineering & Administration                     | -              | -               | -              | -         | -               | -               | 4 620          | 4 620     |     |
| 1 Studies and projects                           | -              | -               | -              | -         | -               | -               | 1 730          | -         |     |
| 2 Administración & supervision                   | -              | -               | -              | -         | -               | -               | 2 890          | -         |     |
| Direct Costs                                     | 2 500          | 11 780          | 18 600         | 32 880    | -               | -               | 63 920         | 63 920    | 9   |
| 1 Completion of Paitoví-Floresta River project   | -              | -               | -              | -         | -               | -               | 25 500         | -         |     |
| 2 Floresta-La Matanza                            | 2 500          | 2 300           | 3 940          | 8 740     | -               | -               | 7 960          | -         |     |
| 3 Step-up station                                | -              | 3 000           | 1 970          | 4 970     | -               | -               | 4 530          | -         |     |
| 4 Pressure lines                                 | -              | -               | 3 265          | 3 265     | -               | -               | 4 635          | -         |     |
| 5 Mains, landfill, connections and meters        | -              | 3 480           | 5 705          | 9 185     | -               | -               | 13 015         | -         |     |
| 6 Procurement and installation of 300,000 meters | -              | 3 000           | 3 720          | 6 720     | -               | -               | 8 280          | -         |     |
| Financial Costs                                  | 3 060          | -               | 1 450          | 4 510     | 350             | -               | 5 000          | 5 350     | 9   |
| 1 Fees                                           | 2 840          | -               | 1 210          | 4 050     | 350             | -               | -              | -         |     |
| 2 Bank supervision                               | 220            | -               | 240            | 460       | -               | -               | -              | -         |     |
| Unallocated                                      | 450            | 3 098           | 5 062          | 8 610     | -               | -               | 10 610         | 10 610    | 19  |
| 1 Contingencies                                  | 100            | 768             | 762            | 1 630     | -               | -               | 2 010          | -         |     |
| 2 Escalation                                     | 350            | 2 330           | 4 300          | 6 980     | -               | -               | 8 600          | -         |     |
| Subtotal                                         | 6 010          | 14 878          | 25 112         | 46 000    | 350             | -               | 84 150         | 84 500    | 130 |
| TOTAL                                            | 7 622          | 23 378          | 57 000         | 83 000    | 500             | -               | 114 000        | 114 500   | 197 |



### III. Sources and Use of Funds

(In US\$ thousands or equivalent)

|                        | Currency of Origin |                | Currency of Use      |                | Total   | %   |
|------------------------|--------------------|----------------|----------------------|----------------|---------|-----|
|                        | Foreign Exchange   | Local Currency | Foreign Exchange     | Local Currency |         |     |
| A. Rural Subprogram    |                    |                |                      |                |         |     |
| Bank: IC               | 10,112             | -              | 10,112 <sup>1/</sup> | -              | 10,112  | 15  |
| FSO                    | -                  | 26,888         | -                    | 26,888         | 26,888  | 40  |
| SNAP                   | -                  | 13,300         | 150                  | 13,150         | 13,300  | 20  |
| SPAR                   | -                  | 6,600          | -                    | 6,600          | 6,600   | 10  |
| Community contribution | -                  | 10,100         | -                    | 10,100         | 10,100  | 15  |
| Subtotal               | 10,112             | 56,882         | 10,262               | 56,738         | 67,000  | 100 |
| B. Urban Subprogram    |                    |                |                      |                |         |     |
| Bank: IC               | 20,888             | -              | 20,888 <sup>2/</sup> | -              | 20,888  | 16  |
| FSO                    | -                  | 25,112         | -                    | 25,112         | 25,112  | 19  |
| CNAS                   | -                  | 34,000         | 350                  | 33,650         | 34,000  | 26  |
| OSN                    | -                  | 50,500         | -                    | 50,500         | 50,500  | 39  |
| Subtotal               | 20,888             | 109,612        | 21,238               | 109,262        | 130,500 | 100 |
| Total                  | 31,000             | 166,500        | 31,500               | 166,000        | 197,500 |     |
| C. Total Program       |                    |                |                      |                |         |     |
| Bank: IC               | 31,000             | -              | 31,000 <sup>3/</sup> | -              | 31,000  | 16  |
| FSO                    | -                  | 52,000         | -                    | 52,000         | 52,000  | 26  |
| Local resources        | -                  | 114,500        | 500                  | 114,000        | 114,500 | 58  |
| Total                  | 31,000             | 166,500        | 31,500               | 166,000        | 197,500 | 100 |

Including indirect foreign exchange costs in the amounts of:

- 1/ US\$8,500,000
- 2/ US\$14,878,000
- 3/ US\$23,378,000

## VI. Bidding

When the goods to be acquired through competitive bidding are to be financed in whole or in part with foreign exchange from the Financing, the bidding procedures and specific bidding requirements shall allow unrestricted participation of bidders of or from member countries of the Bank. Consequently, no conditions precluding or restricting the participation of such bidders shall be imposed through such procedures or specific requirements.

## V. Selection Criteria for the Rural Subprogram

The following criteria will be applied in selecting the projects to be financed under the Rural Subprogram:

- (1) the locality must have a population of 100 to 10,000 inhabitants at the time the work begins;
- (2) there must be adequate means of access for the delivery of materials and drilling equipment;
- (3) the locality must not have a water system capable of supplying more than 120 liters per day per inhabitant to the existing population;
- (4) at least 70% of the property owners that would be served by the system must be willing to provide their proportionate part of the contribution which the community will make for the project;
- (5) the population served must be able to pay the proposed rates;
- (6) The project must have a cost-effectiveness ratio of not more than 15 on the basis of the complete project (including the sources, transmission lines and distribution lines, or equivalent), such ratio to be computed on the following bases:
  - (a) the investment costs and the replacement, operation and maintenance costs, updated in accordance with the prices in effect at the time of final selection of the project;
  - (b) the design population (for 20 years after the start of construction), which must not exceed a figure based on the national average rate of population growth unless a satisfactory justification is provided;
  - (c) in expansion of limited-service projects, the cost shall be computed as the estimated overall cost of the service, that is, it shall include the cost of existing facilities or the cost of the necessary expansion for complete service, as the case may be.

- (7) In exceptional cases, with the Bank's prior approval, projects with a cost-effectiveness ratio above the one previously mentioned may be financed if the project would be intended to serve communities which have a high incidence of water-borne diseases or other problems associated with the quality of the water, such as a high content of arsenic, fluorides or other salts, and a level of income which does not allow them to make a greater contribution to the cost of the project. The cost of projects financed on this basis shall not exceed in the aggregate 10% of the total investment cost of the Subprogram.

VI. Methodology for Ex-post Evaluation

At the start of the third and fifth years following the last disbursement of the Financing, OSN and SNAP shall present to the Bank the ex-post evaluations of the socioeconomic results of the respective urban and rural subprograms. These evaluations shall include:

(a) For the Rural Subprogram

- (i) A comparison between the water service situation in the rural communities at the start and at the end of the project;
- (ii) a comparison between the actual cost-effectiveness ratio for each project and the ratio initially computed.

(b) For the Urban Subprogram and the Meter Installation Plan

- (i) Information on the number of connections at La Matanza, classified by type of beneficiary (industrial, commercial, public and residential), population served by connections, total population of the area served, and average consumption per type of connection.
- (ii) Operating and maintenance costs of the La Matanza system.
- (iii) An evaluation of the implementation of the Meter Installation Plan, with a classification by types of consumer, monthly levels of consumption, and rates applied to each group.

TECHNICAL COOPERATION PLAN OF OPERATIONS

ARGENTINA

RURAL AND URBAN WATER SUPPLY PROGRAM

PLAN FOR TRAINING STAFF OF THE SPAR AND COMMUNITY ENTITIES

I. PURPOSE

- 1.1 The purpose of this plan of operations is to establish the bases of a programa for training staff of the Servicios Provinciales de Agua Potable (SPARs) and of local entities of communities that would benefit under the Rural Subprogram to be carried out with the Bank's cooperation. The training will relate to operation and maintenance of the rural water supply systems encompassed within the Subprogram. Its purposes will be:
  - (i) To provide persons in the communities with the minimum knowledge they will need in order to assume responsibility for the work involved in the operation and maintenance of the systems to be transferred to them; and
  - (ii) To create in the provincial services cadres with adequate experience and knowledge for assisting the community entities.
- 1.2 The beneficiary of the technical cooperation would be the Argentine Nation, and the executing agency would be the Servicio Nacional de Agua Potable Rural (SNAP).

II. DESCRIPTION OF PROJECT

- 2.1 To achieve the above objectives, five types of courses will be conducted, in different localities of the country and at different times, by local professionals selected by SNAP.
  - A. Course for Operators-Administrators. Four courses will be offered for a total of 120 participants.
  - B. Courses for operation and maintenance supervisors. Two courses will be offered for a total of 70 participants.
  - C. Social promotion courses. One course will be given for 30 participants.
  - D. Course on accounting techniques. Two courses will be conducted for a total of 50 participants.

- E. Courses on work inspection. Four courses will be given for a total of 120 participants.

The courses shall be given by instructors and specialists in diverse subjects who shall be hired for short periods in conformity with the requirements of each course. It is envisaged that each course will require from 3 to 6 instructors and specialists.

### III. EXECUTION PERIOD

- 3.1 The training plan will be carried out over a period of 48 months beginning on the date of the contract for the loan. The activities will be conducted in coordination with the other work included in the Rural Subprogram.

### IV. COST AND FINANCING

- 4.1 The total amount of the technical cooperation is estimated at the equivalent of US\$140,000 and would be financed as indicated below:

(In US\$ or equivalent)

| <u>Description</u>                         |                    | <u>IDB</u> | <u>Local</u> |
|--------------------------------------------|--------------------|------------|--------------|
|                                            | (Per course)       |            |              |
| 1. <u>Type A Courses</u>                   |                    |            |              |
| Instructors                                | 2.400              |            |              |
| Per Diem                                   | 900                |            |              |
| Coordination and Secretarial Support       | 2.100              |            |              |
| Transport. and Miscellaneous Contingencies | 2.000              |            |              |
|                                            | 500                |            |              |
|                                            | 7.900 x 4 = 31.600 | 22.000     | 9.600        |
| 2. <u>Type B Courses</u>                   |                    |            |              |
| Instructors                                | 2.400              |            |              |
| Per Diem                                   | 1.050              |            |              |
| Coordination and Secretarial Support       | 1.500              |            |              |
| Transport. and Miscellaneous Contingencies | 2.000              |            |              |
|                                            | 500                |            |              |
|                                            | 7.450 x 2 = 14.900 | 10.000     | 4.900        |
| 3. <u>Type C Courses</u>                   |                    |            |              |
| Instructors                                | 2.400              |            |              |
| Per Diem                                   | 900                |            |              |
| Coordination and Secretarial Support       | 1.500              |            |              |
| Transport. and Miscellaneous Contingencies | 2.000              |            |              |
|                                            | 500                |            |              |
|                                            | 7.300 x 1 = 7.300  | 5.000      | 2.300        |
| 4. <u>Type D Courses</u>                   |                    |            |              |
| Instructors                                | 2.400              |            |              |
| Per Diem                                   | 750                |            |              |
| Coordination and Secretarial Support       | 1.500              |            |              |
| Transport. and Miscellaneous Contingencies | 2.000              |            |              |
|                                            | 500                |            |              |
|                                            | 7.150 x 2 = 14.300 | 10.000     | 4.300        |
| 5. <u>Type E Courses</u>                   |                    |            |              |
| Instructors                                | 2.400              |            |              |
| Per Diem                                   | 900                |            |              |
| Coordination and Secretarial Support       | 2.100              |            |              |
| Transport. and Miscellaneous Contingencies | 2.000              |            |              |
|                                            | 500                |            |              |
|                                            | 7.900 x 4 = 31.600 | 22.000     | 9.600        |
| 6. <u>Contingencies</u>                    | 40.300             | 31.000     | 9.300        |
|                                            | Total              | 100.000    | 40.000       |
|                                            |                    | =====      | =====        |

## V. PROJECT JUSTIFICATION

- 5.1 The object of the loan would be to finance the construction of approximately 226 systems to serve some 270 rural localities which would require personnel to handle the various activities in promotion, construction, administration, operation and maintenance. This staff, which would belong to the provincial services and community entities, would for the most part be new staff that would be assigned to the subprogram and would not have the necessary training. This circumstance provides ample justification for providing this technical cooperation parallel to the loan.
- 5.2 Because the project involves training activities the costs of which would be paid in local currency, it is recommended that it be financed with resources from the Fund for Special Operations.

## VI. FINANCIAL CONDITIONS

- 6.1 The funds to cover the costs of the technical assistance would be part of the loan to be granted to the Argentine Nation from the Fund for Special Operations to assist in financing the third stage of the National Rural Water Supply Plan. They would therefore be subject to the terms and conditions set forth in the contract for the loan.

## VII. SELECTION AND CONTRACTING OF INSTRUCTORS

- 7.1 The executing agency will select and contract directly for the services of the professionals who are to teach the courses to be offered. To this end, the following materials shall be submitted for prior approval by the Bank: (i) the selection procedure; (ii) the panel of professionals from which the selection is to be made, including detailed information on their background and experience; and (iii) the corresponding terms of reference and work schedules. Resources of the program shall not be used to hire additions to the regular staff of SNAP or to pay fees to those already on its staff.
- 7.2 The executing agency would proceed to select the instructors upon Bank approval of the foregoing required materials. The draft of the contract to be signed with each instructor shall be submitted for the Bank's approval.

## VIII. DISBURSEMENTS

- 8.1 Disbursements would be made within a period of approximately 48 months beginning on the date of the pertinent agreement and against presentation by the executing agency, through an authorized representative, of documents justifying the payment of the expenditures charged to the Bank's contribution. The local contribution would be provided within the same period, concurrently and proportionately with, disbursements by the IDB.

IX. REPORTS

- 9.1 The periodic reports on program implementation submitted by the executing agency shall include a section pertaining to the execution of the training program. The final report on the program submitted by the executing agency shall also include a report on the execution of the training program, together with the executing agency's observations thereon and an evaluation of the results of the technical cooperation.

X. SUPERVISION

- 10.1 The Bank will exercise supervision over the program through its Field Office in Argentina.

XI. RESPONSIBILITY WITHIN THE BANK

- 11.1 Basic responsibility for this operation would lie with Division 6 of the Operations Department, Region II.