

**AIRGRAM**

DEPARTMENT OF STATE

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TO: AID/W T AID A # 8

PASS TO BERNICE GOLDSTEIN, LAC/DP

FROM: BOGOTA

SUBJECT: Project Evaluation Summary (PES)  
Small City Environmental Sanitation - 514-U-076

REFERENCE:

Attached for your review is the regular evaluation of the subject loan project.

ASENCIO

*two copy of attach. sent LA, 3/21/79*

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DATE RECD  
  
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March 12/79

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DRAFTED BY <b>CDO: ETeape</b>	OFFICE <b>CDO</b>	PHONE NO <b>384</b>	DATE <b>3/9/79</b>	APPROVED BY <b>Jerry B. Martin/AD</b>
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AID AND OTHER CLEARANCES

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PROJECT EVALUATION SUMMARY

1. Mission or AID/W Office Name USAID/ BOGOTA/COLOMBIA			2. Project Number 514-U-076	
3. Project Title SMALL CITY ENVIRONMENTAL SANITATION				
4. Key project dates (fiscal years) a. Project Agreement Signed Dec. 17, 1974			b. Final Obligation	
c. Final input delivered			5. Total U.S. funding life of project \$ 7,483,598.17	
6. Evaluation number as listed in Eval. Schedule FINAL		7. Period covered by this evaluation From: 01/1975 Month/year		To: 06/1978 Month/year
9. Action Decisions Reached at Evaluation Review, including items needing further study (Note--This list does <u>not</u> constitute an action request to AID/W. Use telegrams, airgrams, SPARS, etc., for action)			10. Officer or Unit responsible for follow-up  OFFICE OF DEVELOPMENT PROGRAMS	
11. Date of this Evaluation Review 10/19/78 Month/year				

12. Signatures:

Project Officer	Mission or AID/W Office Director
Signature <i>Neil B. Billig</i>	Signature <i>James Megellas</i>
Typed Name Neil B. Billig, ODP	Typed Name James Megellas, Director
Date <i>3/2/79</i>	Date <i>3/8/79</i>

13. SUMMARY - The project was designed to assist the GOC in carrying out its urban sanitation activity of its "Health Sector Investment Program". The AID loan supported INSFOPAL's investment in selected water and sewer systems in smaller and intermediate cities. The primary objective of the loan was to improve health status with the provision of adequate sanitary services to the lower income groups. Secondary objectives included: (a) forming community sanitary systems to encourage local responsibility for reaching solutions to sanitary needs, (b) providing adequate users' charges for operation and expansion of sanitary systems, (c) improving planning for investment projects, and (d) improving sanitary service and financial levels to a point where the systems would be capable of receiving national and international loans. The project has been successful in achieving the majority of its goals and objectives. While it has proven difficult to quantify the improvement in the health of the target group as a direct result of clean water, there is a strong general impression that disease has been reduced. There is no doubt that the quality and provision of water in the cities served by the project have been substantially improved and the administration of the water supply agency has also been markedly improved. However, the future of the cities served by the loan is not bright. Population growth is exceeding the rate of expansion of the water and sanitation systems. The GOC is aware of the problem but has assigned its development priorities elsewhere.

The loan faced extraordinary bureaucratic delays in initiating operations. Although the Loan Agreement was signed in December 1974, the first disbursement was not made until April 29, 1976. One year was needed to legalize the loan documentation within the GOC. Further delays were caused by the need to establish separate contracts with each municipal water utility which was assisted. During the life of the project 64 separate contracts were signed each of which required the signature of the President of Colombia! Fortunately, the implementing agency, INSFOPAL, was hard-working, capable and enthusiastic in initiating and pushing the hundreds of separate documents required through the maze of the Colombian bureaucracy.

14. EVALUATION METHODOLOGY - Describe the methods used for this evaluation.

The present evaluation is based upon the quarterly report data sent by INSFOPAL to AID according to Implementation Letter No. 7. The following have been the information sources for this evaluation:

- 1) Planning Office INSFOPAL :  
(Pedro Peñuela Fresneda)
- 2) Financial Division INSFOPAL :  
(Eduardo Hoyos Martínez - Dario Pimienta)
- 3) Quarterly Reports for AID Loan 514-U-076 prepared by INSFOPAL :  
(Blanca Delgado de Reyes)
- 4) Annual Report 1976 for AID Loan 514-U-076 prepared by INSFOPAL :  
(Blanca Delgado de Reyes)

- 5) Report "INSFOPAL's fulfillments August 7, 1974-December 31, 1976":  
(Revision done June 30, 1977) (Gustavo Dajer Chadid)
- 6) Report "INSFOPAL's fulfillments August 7, 1974-December 31, 1977":  
(Alfonso Araujo)
- 7) Technical Assistant Division INSFOPAL:  
(Antonio Frías)
- 8) Sanitary Division DNP:  
(Luis Mario Barrera)
15. Documents to be revised to reflect decisions noted page 1 - NONE
16. Evaluation findings about EXTERNAL FACTORS - Identify and discuss major changes in project setting which have had an impact on the project. Examine continuing validity of assumptions.
  - a) Internal loans between GOC and INSFOPAL which were required by the Finance Ministry (MOH) and Contraloría General de la República (CG).
  - b) The disbursement system through the "Tesorería General de la Nación". This meant that the following institutions had to supervise any disbursement:
    - 1) INSFOPAL
    - 2) DNP
    - 3) MOH
    - 4) Contraloría General de la República
    - 5) Tesorería

The five entities mentioned above required 10 different procedures in order to approve a disbursement.
  - c) Recuperation Contracts already explained under item No. 13.
17. Evaluation Findings about GOAL/SUBGOAL - Not only has the project succeeded in achieving the objectives and goals listed in the project paper, but it has been very successful in establishing the basis for a continuing sanitation program with financing from sources other than AID. As a result of this project and a previous AID loan, 514-U-068,

INSFOPAL has established a Revolving Fund which is recovering part of the funds invested in both loans. The Recuperation Contracts signed with each municipality participating in the potable program generate 12% interest payments and are redeemable within 20 years. Repayments from these contracts are being used to finance other sanitary contracts in towns similar to those assisted under the AID loans. In addition, utilizing the experience gained under the AID project, the implementing agency, INSFOPAL, has succeeded in developing and implementing a US\$36 million dollar project with the World Bank; is developing an additional IBRDF project for US\$39 million; and, is also developing a US\$21 million project with the IDB. We believe the multilateral assistance which has been received is a direct result of the technical assistance, experience and training which INSFOPAL received from the AID project.

The objectives set forth in the Project Paper are outlined and discussed below:

- 17A Objectives: Improve Health Status.  
Indicators: Increase population served.  
Criteria for Sub-Project Evaluation: Substantial progress will be made towards providing service to all potential users.

Project funds were used to finance sanitation works in 279 small towns. In addition to improving the quality of the existing systems, 53,000 new users were provided clean water and 159,000 new users were provided with a sewerage system.

17B Time period to achieve coverage.

"A specific schedule in terms of time and disbursements will show if coverage is to be achieved without undue delays. Financial and physical inputs are to be scheduled adequately to achieve coverage

Initially, a period of 24 months was planned for the implementation of the Project, but the period was later increased to 36 months due to the lengthy procedures required for approval of the "recuperation contracts"

Project funding was disbursed as follows:

	<u>CY 1975</u>	<u>CY 1976</u>	<u>CY 1977</u>	<u>TOTAL</u>
AID	0	2.59	4.89	7.48
GOC	3.61	2.99	1.36	<u>7.96</u>
				15.44 Total

Dollars were converted to pesos for local costs at the following rates:  
1975-30.9; 1976-34.7; 1977-34.8.

The project description programmed INSFOPAL's expenditures at Col. \$860 million for life of project. Instead, the actual INSFOPAL contribution exceeded original projections, and the final amount disbursed was Col. \$1,509.23 millions, excluding INSFOPAL's administrative costs.

We can conclude that financial as well as physical objectives were reached. The principal delays to the project were caused by the cumbersome bureaucratic procedures peculiar to the Contraloría and the Ministry of Finance, and not to difficulties or delays in construction.

17C Quantity of sanitary services (amount and reliability) and quality of sanitary services.

"Analysis is to show clearly the capability to provide quantity (liters Per Capita) and reliability in both source and distribution. Quality requirements must fulfill Colombian and international standards for under-developed countries."

Although project funds were used efficiently and economically in that the sanitation systems constructed were well made, the cities in which they were constructed still do not have an adequate supply or quality of water according to international standards. The supply of water per inhabitant per day now ranges between 60 and 120 liters, whereas international standards require 150 liters per inhabitant per day. While a great deal was accomplished, much remains to be done. The size of the task in providing international levels of sanitation to Colombia's small cities is enormous. The amount of funds required to carry out the task is equally enormous. Considering the amount of funds programmed for the project, suggesting that quality requirements reach international standards was not realistic given the need to reach as many people as possible with some form of improvement. However, the project could have concentrated resources on fewer cities. This would have meant providing water systems to areas which the GOC judged lacked sufficient regular resources to pay monthly water bills regularly.

Consequently, only those inhabitants with regular salaries are presently receiving water systems. This is not to say that only the rich are

receiving water. The average family income of water users is approximately \$100 per month. But, with so many potential users with demonstrated ability to pay still outside the system, the GOC believes it is more economic to first serve those who can repay the investment and pass on the proceeds to other water projects. We believe that this is a rational water policy.

17D Unit Costs per person in providing sanitary services.

"The unit cost per person must be minimized to achieve maximum coverage with limited resources. As an upper limit, unit costs are to be equal or close to unit costs realized in similar types of sub-projects."

The improvement works done during the project were: a) Providing sanitary services to cities which did not have such services; b) Improvements (enlargements, repairs, optimizations) of sanitary services in cities which did not have a complete service according to the quantity and quality of the services supplied. Under these general sanitary characteristics, we can conclude that the average investment per inhabitant benefited was US\$5.91 (taking an investment of US\$15.44 millions and a total population of 2.612 million inhabitants).

For the design of the sanitary works, INSFOPAL has improved its technical capacity. Since 1973, INSFOPAL has received technical assistance from PAHO under IBRD financing. Water treatment designs were standardized to reduce the cost of the project and maximize benefits

for the funds invested. For the water project design, the introduction of the "cost effective survey" was very important in selecting the least costly method of providing the water system. WHO/PANU considers that the investment in improving the sanitary systems, in the Americas, for populations similar to the ones of the Project AID-GOC, should be approximately US\$2.05 to US\$6.11 per inhabitant/per year. Analyzing the data obtained within the AID-GOC Program, we estimate a cost of US\$1.97 per inhabitant/per year, which shows that the investments were reasonable. On the other hand, they reflect the great investments needed in the near future in order to service the vast population without potable water.

17E Provide Sanitary Services to Low Income Groups

"Coverage is to be concentrated in cities of low income and/or in areas where low income groups reside."

The project benefited low income cities of the following sizes:

Cities between 2,500 to 10,000 inhabitants:	62%
Cities between 10,000 to 25,000 inhabitants:	23%
Cities between 25,000 to 50,000 inhabitants:	12%
Cities with more than 50,000 inhabitants:	3%

Cities with old continuous problems of sanitary services were benefited, such as Sincelejo, Envigado, Dos Quebradas, Buenaventura, Bello, Itaguá and Barrancabermeja. These cities are notorious in Colombia for their sanitary problems. While it was not possible to measure the exact incomes of all the users benefited by the project, we do know that the cities and areas selected were those of low income.

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17F Tariffs and installation charges are to be established as much as practical at levels appropriate with user's incomes.

In all the cities under INSFOPAL's supervision, subsidized rates were charged for the services. INSFOPAL has a permanent office (Tariff Bureau) that is continuously reviewing and renewing the tariffs. But the approval of these tariffs depends upon DNP (National Tariff Board) and not INSFOPAL. Many times DNP does not authorize the increase of the tariffs considering the low incomes of the cities affected; without increased employment an increase of the rates would mean very high defaults. This means that the rate for most of the cities must be very low (less than US\$1.5 for 15 M<sup>3</sup>/month) and that INSFOPAL in order to maintain the sanitary services has to be subsidized, which weakens its ability to finance new systems.

The rates in the cities included in the Project are as follows: (monthly rate for 15 M<sup>3</sup> a month)

- Maximum rate: US\$3.25
- Minimum rate: US\$0.19
- Average rate : US\$1.42

Between 1975 and 1977, in the 457 cities included in the INSFOPAL area, tariffs were reviewed and increased in 279 cities (61%), representing an average of 93 cities reviewed each year by INSFOPAL.

17G Form Self-Administrating Local Entities.

"The financial capability of the local entity will be sufficient to cover operational costs."

With the exception of those low-income cities without employment sources, INSFOPAL tries to have all entities cover operation costs and provide some profit margin in order to increase sanitary services. In the recuperation contracts, the cities are going to pay INSFOPAL with the following resources:

- a) Their own resources generated by sale of services.
- b) Contributions made by municipal and departmental governments (generated by liquors, cigarettts and real state taxes).

17H Provide for Adequate Tariffs, Reciperation of Capital, Expansion of the Sanitary System and Elimination of National Government Subsidy.

"Tariff levels, income, operating costs, and operating profits should be reviewed. Analysis will represent a cash flow based on realistic information on operation and maintenance costs, and feasible tariffs schedules on which to project income. All costs should be included such as debt retirement and replacement."

While the general policy of INSFOPAL is to allow every city to be their own manager because of the necessity of decentralizing control, their financial, administrative and operational status have been reviewed.

This work has been done since 1977 by the offices of Technical Assistance for Joint Organizations.

In this office, there are more than 30 professionals in the following areas: financial, administrative, operational and maintenance of sanitary systems.

A financial and operational review of the status of each city's water utility

is made followed by recommendations for improvement. Later, this office follows up the implementation of the recommendations.

A positive aspect of the "Recuperation Contracts" was the requirement that a very detailed analysis of the cities had to be completed. This analysis has contributed a great deal to water utility organization.

171 INSFOPAL Financial Investment Terms.

"Considering programmed tariffs, income, costs, and profits, INSFOPAL investment should be appropriate in terms of subsidies, and/or repayment requirements.

According to Decree No. 2804 of 1975, INSFOPAL has two types of investments:

- a) Loan, and
- b) Donation to communities or locations with low income.

In the case of the "recuperation contracts" towns were selected that could afford to repay to INSFOPAL the investment at an annual rate of 12% with a term of 20 years. (Today in Colombia, such a low rate is a "gift" made possible by the low rate of the Loan of AID, 2% and 3%).

Financial sources for sanitary projects in Colombia are scarce.

INSCREDIAL and some private banks, such as Cafetero and Colombia, lend money at less than 10 year terms with interest rates higher than 18%. Further, even these high interest loans are very limited and the cities within the area covered by INSFOPAL have few possibilities to obtain these loans.

17J Improve Design Criteria and Sanitary System component capacity.

"System linear component capacities are to be compatible and adequately planned so that service levels can be reached without expensive excesses or shortages in the various components of the sanitary system."

The design patterns used by INSFOPAL are oriented towards the construction of systems for 30 year periods, but in "stages" according to the increase of the projected needs.

18. Evaluation findings about PURPOSE - Quote the approved project purpose.

The principal purpose was to improve the sanitary conditions in the towns included under this project. While we believe this has been accomplished it is not possible to quantify because of lack of data. An important indicator was the reduction in gastro-intestinal diseases among young children, but due to the current lack of data (there are no statistics available at the Ministry of Health for years 1976 and 1977) it is not possible to quantify the benefits obtained.

19. Evaluation findings about OUTPUTS and INPUTS - Note any particular success or difficulties. Comment on significant management experiences of host contractor and donor organizations. Describe any necessary changes in schedule or in type and quantity of resources or outputs needed to achieve project purpose.

Difficulties related with program implementation are explained under items 13 and 16. In relation to the amount of financial resources that should be applied to sanitary programs in the area of INSFOPAL in Colombia, the following goals (with acceptable levels of quality of the services) for 1980 were agreed upon in a meeting held in Santiago de Chile (Oct. 1972):

Coverage water system	80%
Coverage sewerage system	55%

This goal pertains to those cities between a population of 2,500 and 100,000.

At first glance the water and sewerage coverage in the area served by INSFOPAL, cities between 2,500 and 100,000 people, does not appear too far from the ideal goals set forth in the Chile sanitation meeting.

The actual coverage in the INSFOPAL area is 74% of the population is being provided water and 43% of the population is served by a sewer system. However, the situation is not as promising as it appears.

First, the water provided to the 74% is not good quality. Perhaps 35% are receiving potable water. Second, the rate of population growth is surpassing the rate of expansion of the sanitation systems. This means that at the present rate of investment in system expansion the percentage of population receiving water and sanitation services will decrease.

In order to provide 80% of the population in its area with water, INSFOPAL would have to invest US\$430 million. However, the amount available between now and 1980 is US\$197 million, including investment from BID and the IBRD. The Colombian government is aware of the problem, but has given investment priority to other sectors of development.

21. Changes in Design or Execution - Explain the rationale for any proposed modification in project design or execution which now appear advisable as a result of the preceding findings (items 16 to 20 above) and which were reflected in one or more of the action decisions listed on page 1 or noted in Item 15 on page 2.

Any program to be executed in Colombia must consider (during the design stage) the bureaucratic procedures involved in project implementation. The project must be designed to avoid formal inter-agency involvement with the subsequent need for multi-agency approval of all actions. The failure to take into account the results of inter-agency involvement on this project resulted in a two year delay in implementation. It is recommended that in the case of a similar program, that the loan be negotiated directly with the Implementing Agency. Also the time required to complete conditions precedent should be carefully examined. While this loan was originally scheduled for 24 months, completion of one of the conditions precedent, establishment of a "recuperation contract" required 12 months. No loan funds could be disbursed nor could the project be implemented until the contract was in effect.