

directing council



PAN AMERICAN  
HEALTH  
ORGANIZATION

XIII Meeting

Washington, D. C.  
October 1961

regional committee

WORLD  
HEALTH  
ORGANIZATION



XIII Meeting

CD13/19 (Eng.)  
26 August 1961  
ORIGINAL: ENGLISH

Topic 26: FINANCIAL OUTLAY REQUIRED TO FORMULATE A CONTINENTAL PLAN OF WATER SUPPLY AND SEWAGE DISPOSAL

During the past year, PASB/WHO staff has expended considerable time in the development of long range plans and the estimation of costs for carrying out a continental plan of water and sewage. This work is continuing. In the PAHO publication recently released "Facts on Health Problems" are shown some preliminary estimates of costs which will be involved in a program of 10 years. Although emphasis is being placed on planning for a 10-year program, it should be pointed out that with the time factor normally encountered on water and sewer projects, with the need to develop personnel, and with the desire to place the capital requirements at a level capable of attainment, it seems wiser to work out this aspect of a national program on a 20-year basis. It has been assumed that the following goals should be reached in a 20-year program:

- a. Urban Water Supply - 90% of all people should be served by water under pressure at their house.
- b. Rural Water Supply - 90% of all rural people should be served by a safe water supply.
- c. Urban Sewage Disposal - Master plan should be completed for sewage disposal in all cities having water systems, and facilities should be available to serve at least 40% of these populations by water-carried sewage collection systems. The balance of the population in the cities should be served by properly constructed latrines.
- d. Rural Excreta Disposal - 70% of the rural population should be served with properly constructed latrines or private sewage disposal systems.
- e. Training - In a separate document prepared for this Directing Council (Topic 31), the program needs and proposals for training of sanitary engineers, sanitary inspectors, water works administrators, and other auxiliary personnel, are discussed.

Annual Costs for PASB/WHO Planning and Project  
Development in Water and Sewage

1. PASB/WHO Technical Assistance to Governments	\$	700,000
2. Training and Education Assistance to all countries		1,090,000
Total:		<u>\$ 1,790,000 per year</u>

Activities to date

It will be recalled that at their respective meetings two years ago the World Health Assembly and the Directing Council of the PAHO both adopted resolutions on water supply which have served as the guides for action by the PASB/WHO up to the present time and which, it is believed, can well continue as a directive for our regional water program in the years to come. The resolutions took note of the importance to public health of safe and adequate water supplies and they recognized the relationship of organization, administration, and financing to the achievement of more and better water systems. In asking the Director to assist the Member Governments in establishing water projects which would meet national needs, and to cooperate with all interested organizations, national and international, and in particular with those in which financial resources might be stimulated, it was recognized in the PAHO resolution that the financial barrier is the one creating the principle obstacle to more water for all the people.

The report on the water program presented at last year's Directing Council (XII Meeting) revealed that during the first year, considerable emphasis had been placed on orienting staff and national personnel in the mechanisms of finance and administration of water systems and, at the same time, to giving consultant services to Governments for planning and rapidly developing sound water projects. During the past year, in addition to continuing these activities on a much more extensive scale, the PASB reached an agreement with the Inter-American Development Bank whereby PASB is now providing a liaison engineer to the Bank and in this capacity, by utilizing the services of the PASB/WHO Headquarters, Field, and Zone Engineers, is providing assistance to the Bank in preliminary review of project proposals, clarification of problems, procurement of information, and in facilitation of the work of the Bank in its processing of requests for loans for water, sewerage, and general sanitation.

It can be reported that in February of this year the first loan made by the Inter-American Development Bank was on a PASB/WHO assisted project for water and sewage at Arequipa, Peru. Since that time a total of \$23,372,675 has been approved by the IADB for 5 loans on water and sewer projects. It may be of interest to note that at the time of preparing this report there are 14

projects on water, sewerage, and general sanitation under consideration by the Bank with total loan requirements of about \$80,000,000. In addition to these projects, others are under consideration or have been approved for water improvements by the EXIMBANK, the DLF, and IDA. It is therefore with considerable satisfaction and gratification that the Organization can observe this greatly increased activity in water supply because a rather substantial part is the result of the action taken in this field by the PASB/WHO as guided by the resolutions of previous Directing Council meetings.

The attention of the Directing Council is called to projects which will supply rural needs in sanitation. Included in such projects are water and excreta disposal facilities. Two such projects have been submitted for consideration by the IADB and would utilize Bogotá Funds. Other projects are under development through assistance of the PASB/WHO, and the Organization stands ready to assist others who may be interested.

Specific activities on the water program carried out since the Directing Council meeting of last year are summarized as follows:

Course in Water Finance and Administration - Middle America

This Course was held in Mexico, D. F., with an attendance of 55.

Course in Water Finance and Administration - South America

This Course was held in Brazil with an attendance of 60.

Consultant Services

Services of consultants for periods exceeding 6 months have been or are being provided to Colombia, Cuba, Mexico, Peru and Venezuela.

Short-term consultant services in water supply organization were provided to Colombia, Costa Rica, El Salvador, Haiti, Honduras, and Panama.

Consultant services in Water Supply Financing, Water Rates, and Accounting were provided to Colombia, Haiti, Peru, and Venezuela.

Consultant services on technical engineering matters were provided to Colombia, Chile, Ecuador, Honduras, Peru, and British Honduras.

Consultants in Hydrology, Drafting, Design, Planning and/or report preparation were provided to Brazil, Colombia, Haiti, and Peru, in connection with bank loan submissions.

Work was completed for publication of a Water Rates Manual based in part on data collected for the Water Rates Seminar held in 1960.

Studies were continued on long-range planning and the financial needs associated with national programs in water and sewage for urban and rural areas in the next 10 to 20 years.

Studies were continued on requirements for engineer and sanitation auxiliaries by Ministries of Health, Ministries of Public Works, Municipalities, and Water Agencies in the next 20 years in Latin America. Since in many countries the success of the expanding water program will depend on the availability of trained technical and administrative personnel, great effort must be expended at once to insure the supply of these people. The Organization has assisted two Governments in the development of projects which have been submitted to the UN Special Fund for consideration and which provide for expanding and improving facilities for teaching sanitary engineers. Assistance is being given to several other countries in the development of similar projects.

#### SUMMARY

During the past 12 months, the PASB/WHO has made assistance available to every one of the Member Governments in the field of water supply. The basic policies and preliminary work developed over the past two years have been of extreme value in calling to the attention of economists, bankers, and planners the importance of water supply not only to public health but to economic development as measured by improvement in man's standard of living.

Water Projects Approved by the Inter-American Development Bank, 1961

City	Country	Amount of Loan	Water	Sewage
Arequipa	Peru	\$ 3,753,780	X	X
Medellín	Colombia	5,944,800	X	
Cartagena	Colombia	5,831,095	X	X
Montevideo	Uruguay	5,743,000	X	
-	El Salvador	2,100,000	X	X
		<u>\$ 23,372,675</u>		

Specific Assistance given to Countries for Water Programs, September 1960 - September 1961

Argentina

1. Assistance given in training engineers at the São Paulo Water Management Course.
2. Assistance given in sanitary engineering through 6 fellowships.

Bolivia

1. Assistance given in training engineers at the São Paulo Water Management Course.
2. Assistance given in sanitary engineering through 8 fellowships.

Brazil

1. Assistance given in training engineers at the São Paulo Water Management Course.
2. Consultation given on Salvador, Bahia water system.
3. Assistance given through sanitary engineering fellowships.
4. Consultant services provided for a conference on water pollution control (3 consultants).

Chile

1. Assistance was provided in the study and preparation of a national water plan (1 consultant).
2. Consultant services related to Santiago water system were provided (1 consultant).
3. Assistance given in training engineers at the São Paulo Water Management Course.
4. Assistance given in sanitary engineering through 4 fellowships.

Colombia

1. The services of a full time consultant are being provided for assistance to the Instituto Nacional de Fomento.
2. Assistance in preparation and presentation of the Cúcuta Water Project for loan consideration.
3. Assistance in review of water rates structure, Cúcuta (1 consultant)
4. Assistance given in training engineers at the São Paulo Water Management Course.
5. Assistance given in sanitary engineering through 20 fellowships.
6. Assistance is continuing on certain aspects of water and sewer projects in Medellín, Cali, Barranquilla, Tunja, Tulua, and Cartago.

Costa Rica

1. Assistance was provided in advanced training of engineers in finance and administrative aspects of water systems through a three-week course jointly sponsored with the Mexican Government at the National University of Mexico.
2. Consultant services were provided for the review of a national water law (1 consultant).
3. After passage of the national water law assistance was given in the development of the management (1 consultant)
4. Assistance was given in the training of 2 sanitary engineers.

Cuba

1. The services of a resident project engineer was provided to assist the national water and sewer authority in water and sewer design.
2. Fellowships were provided to 3 engineers for training outside the country.

Ecuador

1. Assistance is being given on preliminary studies for a municipal water and sewer project.
2. Several engineers were given training at the São Paulo Water Management Course.

El Salvador

1. Services of a consultant were provided on two occasions to review the proposed national water law.
2. Consultant services of a geologist for water-well development are being arranged.
3. Engineers were provided training at the Mexico City water management course.
4. Two fellowships were given for general sanitary engineering training.

Guatemala

1. The services of a consultant were provided to assist in development of a water project for Guatemala City.
2. Four engineers were provided training at the Mexico, D. F., water management course.
3. A fellowship for sanitary engineer advanced training was provided.

Haiti

1. The services of four engineers were provided to assist in preparation of the project of water for Port-au-Prince.
2. A hydrogeologist was provided, on loan from UNESCO, to review the ground water sources for the Port-au-Prince system.

3. Drafting and office assistance was provided in completion of the Port-au-Prince study.

4. Services of 3 staff members were given to make a preliminary evaluation of the sociological factors which have to be considered when water policies are adopted.

5. Five fellowships were provided for training of sanitary engineers at the Mexico water management course and elsewhere.

#### Honduras

1. Consultant services were provided to review the draft of the proposed national water law (1 consultant).

2. Consultant services were provided to make an appraisal of the Puerto Cortés Water, Sewer, and Drainage Project and to establish a proposal on how to proceed in developing this project.

3. Fellowships and facilities for training of engineers in water finance and administration were provided.

#### Mexico

1. Assistance is being provided through assignment of a full-time engineer for water supply activities.

2. Assistance is being given in the development of a potable water project for Monterrey.

3. The course on water finance and administration was developed with the national officials for Mexican engineers and those from Central America, Colombia, Panama, and Venezuela.

4. Nine fellowships were provided for sanitary engineer development.

#### Nicaragua

1. Facilities were provided for training of sanitary engineers in water supply finance and administration at the Mexican Course.

#### Panama

1. Consultant services were provided to review the draft of a national water law.



Paraguay

1. Assistance is being given through the UN Opex operation for on-the-job training of water works operators in Asunción.
2. Assistance has been given through fellowships for training of engineers in water management.

Peru

1. Assistance is being given through the services of a full time water engineer to the Government.
2. Consultant services and liaison activity was provided in connection with submission of the Arequipa water project to the Inter-American Development Bank for loan consideration (2 consultants).
3. Consultant services were provided in water works accounting procedures (1 consultant).
4. Six fellowships were given to engineers for advanced training in water administration and related subjects.

Uruguay

1. Provision was made for national engineers to attend the course on water administration at São Paulo.
2. Assistance was given for the development and presentation of a national water works operators course.
3. Fellowships for advanced training in sanitary engineering were provided.

Venezuela

1. Consultant service was provided for the technical review of specific municipal water projects.
2. A consultant was provided to assist in the development of a long-range program of water supply.
3. The services of a consultant were provided to review national water rate policies.
4. Assistance was given in a study of the public information policies of the National Water Institute.

5. Nine fellowships were given for advanced training in sanitary engineering and in water finance and administration.

British Territories

1. Assistance was given on water problems in development of water supply program in five of the territorial islands.

2. Five fellowships were provided to aid in development of technical personnel in the water supply field.

British Honduras

1. A preliminary study was initiated leading to recommendations for the development of a municipal water system for Belize City (1 consultant).