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C E P A L

Economic Commission for Latin America

REPORT OF THE SECOND LATIN AMERICAN SEMINAR ON HORIZONTAL CO-OPERATION FOR THE INTERNATIONAL DRINKING WATER SUPPLY AND SANITATION DECADE

(Santo Domingo, Dominican Republic, 11-14 January 1982)

82-1-139

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I. ORGANIZATION OF WORK

1. The CEPAL Sessional Committee on Water which considered the implementation of the Mar del Plata Action Plan at the Commission's eighteenth session requested the CEPAL Secretariat to participate in the activities undertaken by the World Health Organization/Pan-American Health Organization (WHO/PAHO) with a view to concerting the efforts of the countries of the region to implement the objectives of the International Drinking Water Supply and Sanitation Decade through various measures including "the convening of special meetings of representatives of national and international agencies connected with the implementation of programmes for the International Drinking Water Supply and Sanitation Decade".1/

2. At the same time, it was recommended that, having in mind paragraphs 4 and 5 of resolution IV of the Mar del Plata Conference, among other actions, "measures be taken with immediate effect to foster the launching of projects for horizontal co-operation in the field of water resources in Latin America".

3. In order to comply with the foregoing requests, the Executive Secretary of CEPAL invited the countries of the region to take part in two seminars on horizontal co-operation for the International Drinking Water Supply and Sanitation Decade. The first seminar was held at CEPAL headquarters in Santiago, Chile from 9 to 13 March 1981.2/

1. Place and date

4. The Second Latin American Seminar on Horizontal Co-operation for the International Drinking Water Supply and Sanitation Decade was held in Santo Domingo, Dominican Republic, from 11 to 14 January 1982.

2. Attendance 3/

5. Delegations from the following member countries of CEPAL were represented at the Seminar: Barbados, Dominican Republic, El Salvador, Guatemala, Jamaica, Mexico, Nicaragua, Saint Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago. Also represented was Montserrat, attended in the capacity of associate member of the Commission.

6. From the United Nations Secretariat, representatives attended from the United Nations Children's Fund (UNICEF) and the United Nations Development Programme (UNDP).

7. The World Health Organization/Pan-American Health Organization (WHO/PAHO), an agency of the United Nations System, also took part in the Seminar.

8. Representatives of the Inter-American Development Bank (IDB) an inter-governmental organization, also attended the Seminar.

1/ See CEPAL, Annual Report, Official Records of the Economic and Social Council, 1979, Supplement No. 16 (E/1979/51, Vol. 1, paragraph 485 (c)).

2/ See CEPAL, Report of the First Latin American Seminar on Horizontal Co-operation for the International Drinking Water Supply and Sanitation Decade (E/CEPAL/G.1171).

3/ See the list of participants in annex 1.

/3. Agenda

3. Agenda 4/

9. The seminar adopted the following agenda:
   1. Election of Officers and adoption of the agenda and programme of work.
   2. National activities in connexion with the International Drinking Water Supply and Sanitation Decade.
   3. Horizontal co-operation in social, economic, and financial aspects relating to drinking water supply and sanitation, as a strategy for the implementation of the Decade.
   4. Specific horizontal co-operation projects.
   5. Conclusions and adoption of the report.

4. Opening meeting

10. The Seminar was honoured by the presence of His Excellency Mr. Antonio Guzmán Fernández, President of the Dominican Republic, and Mr. José Rodríguez Soldevilla, Secretary of State for Health at the opening meeting which was addressed by Mr. Francisco Fernández Calventi, Executive Director of the National Institute of Drinking Water and Sewerage (INAPA), by UNDP Resident Representative for the Dominican Republic, and by the CEPAL Co-ordinator for the Seminar.

11. After welcoming the distinguished guests and participants, the Executive Director of INAPA gave an outline of the water supply and sanitation situation in the Dominican Republic and of the activities and plans in connexion with the International Drinking Water Supply and Sanitation Decade. The UNDP Resident Representative stressed the global needs in the areas of water supply and sanitation and the importance of horizontal co-operation as an approach for realizing the aims and objectives of the Decade. The Seminar Co-ordinator, speaking on behalf of the Executive Secretary of CEPAL, expressed gratitude to the host government for its generous hospitality and to the delegates and other participants. He stressed the importance for Central America and the Caribbean of the International Drinking Water Supply and Sanitation Decade and, among the activities organized for the Decade, emphasized the need to set up a forum in which the representatives of these countries could exchange information on their broad experience in this field, particularly in economic, financial and social aspects; he also referred to the background, objectives and expected results of the Seminar.

5. Election of Officers

12. At the first working meeting of the Seminar, the following Officers were elected:

Chairman:	Francisco Fernández Calventi (Dominican Republic)
Vice-Chairman:	Fraterno Girón Girón (Guatemala)
Rapporteur:	Hildreth Sanchez (St. Lucia)

4/ See the list of documents in annex 2.

/6. Adoption

6. Adoption of the report

13. At the final meeting, the participants read and adopted the report of the Seminar proposed by the rapporteur.

II. SUMMARY OF THE DISCUSSIONS

1. National activities in connexion with the International Drinking Water Supply and Sanitation Decade (Agenda item 2)

14. The delegations presented summaries of their experience on this topic placing major emphasis on the particular aspects they considered to be most important for the objectives of the meeting. They described in general terms the advances achieved in extension of drinking water supply and sanitation services at the beginning of the 1980s and the programmes elaborated in order to achieve the goals established for the Decade. Special attention was given on the one hand to the needs in terms of human and financial resources and on the other to the most serious restrictions and difficulties being faced. The various horizontal co-operation activities that had been realized were presented, together with the positive and negative experiences resulting from them. Finally, some countries presented a number of suggestions as to programmes of horizontal co-operation which should be given priority.

15. The representative of UNICEF outlined in detail the programmes being undertaken in support of the Decade and stressed the importance his agency was giving to its water and sanitation activities. He placed special emphasis on the significance of community participation for the success of the activities directed primarily to safeguarding the health of children and mothers in rural and marginal urban areas.

16. The representative of PAHO/WHO referred to the principles proposed by WHO for the IDWSSD, drawing attention to the needs of the low-income population, the complementarity between drinking water supply and sanitation, provision of minimum secure services for the widest possible population, sanitary education, improvement in operation and maintenance and in the quality of water, and the interrelationship with other health programmes so as to achieve the goal of health for all by the year 2000. He also suggested that the countries should accelerate the adaptation of sectoral plan to the goals of the IDWSSD. He indicated that the Pan-American Centre for Sanitary and Environmental Engineering (CEPIS) had made progress in accomplishing the tasks assigned to it at the first seminar and had prepared a questionnaire to be sent shortly to all water supply and sanitation institutions in order to establish a register of institutions and professionals and to identify potential areas for horizontal co-operation. The PAHO/WHO regional area engineer for the English-speaking Caribbean presented the subregional activities of WHO/PAHO and CARICOM related to environmental health in the Caribbean.

/2. Horizontal

2. Horizontal co-operation in social, economic and financial aspects relative to drinking water supply and sanitation, as a strategy for the implementation of the Decade (Agenda item 3)

17. The Secretariat presented two reports on the coverage and modus operandi of horizontal co-operation in the area of drinking water supply and sanitation in recent years. The first, covering the countries of the Central American isthmus, included activities at the level of professional and public entities as well as educational and technical topics. Mention was also made of priority areas for horizontal co-operation such as: availability of projects, the field of finance, human resources, operational capacity of the institutions and community participation. The second report, presented by the consultant for the English-speaking countries of the Caribbean, emphasized the objectives and significance of horizontal co-operation and described the various experiences of horizontal co-operation in the subregion in the area of training, short-term advisory services, laboratory and maintenance services, subregional meetings and workshops, technology transfer, equipment and materials and common professional services. Finally, emphasis was placed on horizontal co-operation as one of the strategies to promote the achievement of the goals of the Decade.

18. Following comments and discussions by participants on this agenda item, the meeting agreed to constitute itself into two committees, to further discuss aspects of the subject in greater detail and to prepare outlines to serve as the basis for formulating recommendations on strategies for horizontal co-operation.

19. The recommendations of the meeting appear in Section III of this report.

3. Specific horizontal co-operation projects (Agenda item 4)

20. The various delegations presented summaries of relevant aspects of their countries' situation and experiences in operating water supply and sanitation services. These summaries detailed areas in which countries had experience and had developed facilities and techniques which they could offer to other countries. The participants also stated areas in which they were in need of assistance.

21. The IDB representative presented the Bank's special programme for technical co-operation between Latin American countries. The representative of UNICEF explained how his organization could support horizontal co-operation projects and provided preliminary information on the proposed regional and interregional project for Latin America and Africa on the training of intermediate operational and maintenance personnel for drinking water supply and sanitation systems in rural and marginal urban areas. The representative of PAHO/WHO indicated the desirability of reinforcing AIDIS and the subregional mechanisms already established for horizontal co-operation such as, the Association of Managers of Water and Sanitation Institutions of Central America, Panama and the Dominican Republic, the Andean Pact and the Caribbean Water Engineers' Conference. He suggested that an appropriate initial area for horizontal co-operation might be infrastructural development and staff training and development.

/22. The

22. The list of offers and requirements of each country and a list of potential areas in which horizontal co-operation projects could be developed are given below in Section IV.

III. CONCLUSIONS

23. The participants adopted the following recommendations on strategies for horizontal co-operation:

(a) Operational machinery at the national level

Delegates should urge their governments to accelerate substantially the pace of their programmes for drinking water supply and sanitation, and to strengthen or establish suitable mechanisms, such as National Action Committees, to institutionalize horizontal co-operation and facilitate policy formulation, intersectoral co-ordination, and the utilization of available external resources in the formulation and implementation of national plans for the Decade, taking account of the global recommendations established for it.

(b) Identification of operational machinery at the subregional level

(i) Delegates should bring to the attention of the specific authorities of their respective countries the need to assist the National Action Committees for the Decade with the aim of strengthening the subregional committees for co-operation in water supply and sanitation.

(ii) In the interest of further developing horizontal co-operation among the English-speaking Caribbean countries and Suriname and of utilizing available external resources on a subregional basis, governments should give their fullest support to the Annual Caribbean Water Engineers' Conference in order for the goals of the Decade to be effectively realized.

(iii) The Caribbean Community (CARICOM) should play a more positive role in assisting its member States to formulate and implement national Decade plans by using the recently established Caribbean Environmental Health Institute as a focal point for subregional programmes in Decade activities.

(iv) The relevant multilateral and bilateral agencies in the Caribbean should support national Decade plans by giving priority to the resulting programmes and projects, in the context of a more active role on the part of UNDP in soliciting and co-ordinating such international action at the subregional and country levels.

(c) Horizontal co-operation at the regional level

(i) Delegates agreed to approach the relevant authorities of their countries and ask them, as a support strategy for the Decade, to assign the necessary funds for horizontal co-operation in the sector in order to ensure the hoped-for success.

(ii) Given the important role that horizontal co-operation can plan in the socioeconomic development of the region; the existence of significant resources, experience and opportunities within individual countries which could form the basis of technical and economic co-operation towards further development of water supply and sanitation services; and the limitation placed on such co-operation as a result of differences in language within the region:

/- A

- A student exchange programme in areas related to water supply and sanitation should be developed between institutions of higher learning in Latin America and the Caribbean as a first step in the elimination of existing language barriers. Governments, PAHO/WHO and other international agencies should give their fullest support to this programme.
- Further, all major Decade documents prepared within the United Nations System for use in Latin America and the Caribbean should be presented in all the United Nations official working languages spoken in the region recognized and in particular, PAHO/WHO is urged to prepare and disseminate to the Spanish-speaking countries of Latin America a Spanish version of the publication "Drinking Water and Sanitation, 1981-1990: A Way to Health"; WHO, 1981.

(iii) A specific horizontal co-operation project which is well within the reach of all the countries is that concerning the Technical Co-operation Programme between Latin American countries (CT/INTRA), and it is recommended that the corresponding document prepared by the Inter-American Development Bank should be brought to the attention of all the institutions participating in the International Drinking Water Supply and Sanitation Decade.

(d) The role of the United Nations System and intergovernmental organizations

In view of: the responsibilities assigned to UNDP by the international community for co-ordinating activities during the Decade and in accordance with its traditional role as co-ordinator of technical assistance; the fact that personnel of several international agencies with responsibilities for aspects of water supply and sanitation are assigned to various Caribbean countries; the low level of activity of United Nations agencies and other intergovernmental organizations in general, and UNDP in particular, in projecting the aims and objectives of the Decade in the countries of the English-speaking Caribbean, including Suriname; and the fact that the second year of the Decade has already begun, yet only two national action committees have been established in the English-speaking Caribbean countries and Suriname:

(i) The United Nations System and intergovernmental organizations should give higher priority and devote more time and resources to the areas of water supply and sanitation, particularly by taking a more active role in assisting in the formation of and support for national action committees or other suitable mechanisms and fostering subregional and regional horizontal co-operation activities, including the subregional committees. Such support should include the more efficient use of existing resources through greater flexibility in deployment of personnel and funds as well as the provision of additional resources from the international financing organizations.

(ii) CEPAL, for its part, should continue to promote horizontal co-operation in support of the goals of the International Drinking Water Supply and Sanitation Decade by co-ordinating its activities with PAHO/WHO and other international organizations and giving its support to the subregional committees for co-operation in drinking water supply and sanitation.

/(e) Exchange

(e) Exchange of information

(i) The countries should establish a national focal point using existing resources where possible to make effective the exchange of information through the Pan-American Information Network operated by PAHO through the Pan-American Centre for Sanitary Engineering and Envinonmental Sciences (CEPIS). It is also recommended that such a focal point be placed within the National Action Committee for the Drinking Water and Sanitation Decade.

(ii) The subregional committees for co-operation in drinking water supply and sanitation should establish a focal point for each subregion for the purpose of exchanging information in the subregion.

(f) Interamerican Association of Sanitary Engineers (AIDIS)

The delegates participating in the Second Seminar agreed to take the necessary action with the national sections of AIDIS to ensure that these sections promote, in the periodic international meetings of AIDIS, the incorporation of international co-operation projects. In particular, the national sections should recommend to AIDIS the development of horizontal co-operation projects, inviting the participation not only of professionals in sanitary and environmental engineering but also of public and private entities providing drinking water supply and sanitation services and manufacturers of construction materials and water supply and sewerage equipment. With the same end in view, it is recommended that the international organizations strengthen their links with AIDIS.

IV. SPECIFIC HORIZONTAL CO-OPERATION PROJECTS

24. On the basis of the offers of and needs for horizontal co-operation mentioned by the Seminar participants and detailed below, the following areas appear to have the greatest immediate potential for the development of projects for horizontal co-operation in the region in support of the International Drinking Water Supply and Sanitation Decade.

(a) Decade planning

(i) Preparation of national Decade plans.

(ii) Programme and project formulation for external funding and plan implementation.

(b) Institutional aspects

(i) Institutional strengthening and development.

(ii) Manpower surveys and studies.

(c) Technological aspects

(i) Selection and use of appropriate technology (hardware and software), especially for rural areas.

(ii) Development of design criteria and national quality standards for water supply and efficient waste water disposal.

(iii) Use of non-conventional sources of energy in drinking water supply and waste water disposal.

(d) Water resource use

(i) Groundwater resource exploration and use.

(ii) Water quality surveillance -monitoring and control.

(iii) Protection of surface water supply sources.

(iv) Re-utilization of treated wastewater, especially in irrigation.

(v) Water pollution control.

/(e) Operation

(e) Operation and maintenance
- (i) Preparation of a model disaster management plan for national water agencies.
- (ii) Establishment of operation and maintenance (including preventive maintenance) programmes for water and sewerage systems.
- (iii) Review and modification of water/sewerage rates and tariff structures, and collection procedures.
- (iv) Surveys and studies of unaccounted-for water, especially for leak detection.

(f) Rural water and sanitation
- (i) Preparation of a model rural water supply and sanitation programme.

(g) Human resources
- (i) Training of water agency personnel at all levels.
- (ii) Consumer education programmes for adult citizens and school-children (e.g., water conservation, etc.).
- (iii) Programmes of community participation in system development and operation.

(h) Information systems
- (i) Data collection and establishment of a data bank.
- (ii) Preparation of training and working manuals for system operation.

(i) Financing
- (i) Generation of funding (and income) from local communities for system development.
- (ii) Negotiation of soft loans and grants from external donor agencies.

25. The delegations enumerated the following specific offers and needs of horizontal co-operation in drinking water supply and sanitation:

BARBADOS

Offers:
1. Training in leak detection by waste metering.
2. Assistance through the CBWM in manager/supervisor training and manual/job aid development.
3. Experience in digging of water wells in coral limestone.
4. Experience in the use of cast iron/ductile iron mains in coral.
5. Institutions for training in water-related skills.

Needs:
1. Assistance in the training of sewerage treatment plant operators.
2. Assistance in the use of unconventional energy sources, e.g., the wind, as possible sources of energy for pumping water.
3. Exposure to the experience of other countries in the use of plastics or other materials in the water supply system.

/EL SALVADOR

EL SALVADOR

Offers:

1. Educational plan directed to children and adults through television.
2. Technical and economic feasability studies for external financing of large projects.
3. Water resource Master Plan.

Needs:

1. Advanced institutional development and administrative training.
2. Norms for and treatment of arsenic in drinking water supply.
3. Experience on recharging of ground water aquifers.

GUATEMALA

Offers:

1. Planning methods for the International Decade.
2. Experience in the organization of project banks.
3. The Guatemalan model for the disposal of waste water.
4. Integral use of the water sources for drinking water supply and small hydroelectric power stations
5. Experience in negotiating loans with international agencies.

Needs:

1. Assistance in institutional development and creation of enterprises.
2. Assistance in implementation of tariff systems.
3. Personnel training in these fields.

JAMAICA

Offers:

1. Experience in leak detection in municipal water supply systems.
2. Experience in artificial recharging of limestone aquifers.
3. Experience in the problems of saline intrusion in coastal aquifers.
4. Experience in experimentation on the re-use of sewerage for irrigation.
5. Training of pump operators.
6. Assistance in the design of systems for the establishment of hydrological networks and the collection, computation and basis analysis of hydrological data.

Needs:

1. Assistance in the preparation of a comprehensive national water plan.
2. Well design in alluvial aquifers.
3. Exchange of experience in the construction of "vertical gallery shafts" for groundwater production.
4. Experience in the use of plastic piping in water enterprises.
5. Design of programmes and projects for rural water supply.

MEXICO

Offers:

1. Methods of economic and social planning relating to the Global Development Plan, the National Urban Development Plan, the National Water Supply Plan, the National Training Plan and the National Drinking Water Supply and Sanitation Plan.

/2. Surveillance

2. Surveillance and quality control of water for human consumption.
3. Inventory of drinking water and sewer system.
4. Certification of the quality of water for human consumption.
5. Methods of using brackish and salt water.

Needs:

1. Procedures for the effective maintenance of drinking water and environmental sanitation services.
2. Financial recovery procedures for small cities and rural towns.
3. Adaptation of technologies for basic rural sanitation.

MONTSERRAT

Offers:

1. Manuals on use of floating chlorinators, maintenance of switchgear and communications.
2. Rate structures.

Needs:

1. Advice on alternative energy sources, especially wind, for pumping water.
2. New office building.
3. Advice on alternative solid waste disposal systems.
4. Assistance in providing water and pit latrines to 700 additional houses.

NICARAGUA

Offers:

1. Exchange experience on water treatment plants with appropriate technology.
2. Education in rational water use. Nicaragua has obtained significant savings in water and energy consumption.
3. Community participation in water supply and sanitation programmes.
4. Project formulation.
5. Exchange information on deep wells experience.

Needs:

1. Experience in the administration of rural water systems.
2. Water quality control.
3. Systems operation and maintenance experience.
4. Estimation of the need for training programmes for personnel in the long term.
5. Experience in sewage disposal through submarine outfalls.

DOMINICAN REPUBLIC

Offers:

1. Formulation rural drinking water supply programmes.
2. Promotion and organization of rural communities for participation in the construction and operation of aquaducts.
3. Design of rural aquaducts.
4. Sewage treatment plants, especially aeration pools.
5. Advisory services in drinking water analysis.
6. Rehabilitation of wells for water supply.
7. Experience in the use of plastic, asbestos, cement and reinforced concrete pipes.
8. Exchange of experience in the management of plants for rendering very turbid water drinkable.
9. Exchange of experience concerning plants for rendering water drinkable with appropriate technology.
10. Pump repair and maintenance shops.
11. Exchange of experience concerning water measures.

/Needs:

Needs:
1. Training for professional and supervisory personnel.
2. Advisory services in user education programmes.
3. Systems maintenance.
4. Rate structures.
5. Detection and control of leaks.

SAINT LUCIA

Offers:
1. Experience in laying distribution mains in hilly countries.
2. Use of water of varying quality.
3. Community participation in construction, administration and maintenance.
4. Water quality laboratory and training in water quality analysis.
5. Experience in preparing integrated training programmes.
6. Experience in twinning with water authorities from developed countries.
7. Operation and maintenance of pumping systems.
8. Experience in the use of plastic pipe.

Needs:
1. Advice on analysis and design of impounding reservoirs.
2. Advice on tariffs and rate structures for rural areas.
3. Billing systems.
4. Small hydroelectricity projects.
5. Public education.
6. Assistance in preparing plans for sewerage systems.

ST. VINCENT

Offers:
1. System construction in mountain areas.

Needs:
1. Assistance in sector planning to meet aims of the Decade in connexion with both water supply and sewerage.
2. Project preparation assistance.
3. Improved revenue collection systems to achieve self-financing.
4. Training of professional and technical personnel.

SURINAME

Offers:
1. Training of technicians for geoelectrical methods for groundwater investigation.
2. Training of technicians in the geophysical aspects of boreholes.
3. Design of small rural water supply systems.
4. The use of P.V.C. water mains.
5. The use of non-corrosive casings for deep wells.
6. Handbook for waterwell drillers.

/Needs:

Needs:

1. Training of waterworks personnel, such as plumbers, operators of technical facilities for the detection of leaks, and water managers.
2. Training of engineers and technicians for sewerage systems.
3. Expertise for alternative energy sources.
4. Training of waterwell drillers.

TRINIDAD AND TOBAO

Offers:

1. Experience in well construction, particularly in alluvium and deep wells.
2. Operation and maintenance of water resource inventory.
3. Training center for operators and technicians.
4. Water quality laboratory.
5. Experience in use of plastic pipes.

Needs:

1. Operation and maintenance, especially maintenance sewerage treatment plants.
2. Rate structures.
3. Water pollution control.

Annex 1

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Annex 2

LIST OF DOCUMENTS PRESENTED AT THE SEMINAR

1. Provisional agenda (E/CEPAL/L.244).

2. Annotated provisional agenda (E/CEPAL/L.245).

3. Central America: Recent experience on horizontal co-operation in drinking water supply and sanitation (E/CEPAL/L.256).

4. Horizontal co-operation in drinking water supply and sanitation in the Caribbean (E/CEPAL/L.259).