

CARIB/INT 81/9

7 December 1981

Distribution: Restricted

ECONOMIC COMMISSION FOR LATIN AMERICA  
Subregional Office for the Caribbean



REPORT ON ATTENDANCE AT THE  
12TH ANNUAL CARIBBEAN WATER ENGINEERS  
CONFERENCE - ST. VINCENT  
(28-30 October 1981)

Prepared by  
Wilfred L. Whittingham  
Economic Affairs Officer  
(Energy and Natural Affairs)



Report on Attendance at the 12th Annual  
Caribbean Water Engineers Conference  
St. Vincent, 28-30 October 1981

The meeting was hosted by the Government of St. Vincent through the Central Water and Sewerage Authority.

CEPAL's major interest in the meeting was the statement by the hosts that a major topic for discussion would be the International Drinking Water Supply and Sanitation Decade and the concern that Caribbean countries be included in the drive to improve the water and sanitation situation under the auspices of the Decade.

The Agenda of the Conference is included in the "Time-Table" attached as Annex I. Although only one-half session is shown on the Agenda as devoted to the International Drinking Water Supply and Sanitation Decade reference to the subject occurred repeatedly, for example in discussions on the St. Vincent and Grenadines Water Supply and on "Project Funding Agencies".

The rest of this report is organized to present important information emanating from attendance at the meeting for the benefit of CEPAL's greater understanding of the Water Supply situation in the LDC's. Accordingly, the report is divided into three sections: Comments, The Recommendation addressed to CEPAL and the Seminar and Actions by ECLA Caribbean Office.

## I. COMMENTS

### a) The Water Supply Situation in the LDC's

Apparently not very good although relatively large proportions of populations are served with water. It would appear that systems are relatively old and resources to maintain the current level of services and to meet growing needs just do not exist.

Financial position - extremely weak mainly due to low water rates, low intensity of metering and inadequate subsidy levels,

Lack of manpower resources - inadequate (non-existent in some countries) at the level of water engineers - also inadequate at levels of senior administrative personnel and supporting staff. This factor is also a function of inadequate finances and indicates difficulties with planning and policy formulation in water and sanitation.

Scarcity of information - relates both to number of series, frequency, type, validity, reliability, etc. This problem is discussed in "Water Consumption Patterns in the Caribbean" presented to the Conference by H.M. Sanchez of St. Lucia.

Water production and consumption - In some cases consumption has been growing faster than production especially under pressure of increased urbanization, increased tourism and even the tentative moves toward industrialization. A complementary problem is the increasing inability to maintain acceptable standards of water quality.

The problem of inadequate financing has severely affected rehabilitation of facilities in St. Vincent following natural disasters in 1980 and 1981. For example, as a result of deforestation landslides occurred during heavy rainfall in May 1981 and severely damaged one water supply system. As of the end of October opinion was that restoration was still a long long way off.

b) "Decade" activities

The "Decade", so far, is characterized more by a lack of activity in Caribbean countries than otherwise. This fact is implicit in the paper prepared by Ronald Williams, Area Engineer Adviser to the PAHO Caribbean Programme in Barbados titled "International Drinking Water Supply and Sanitation Decade (1981-1990): Recommended National Action and Programmes".

Formal discussions during Conference sessions as well as informal discussions reveal several facts:

- (i) to this date very few Caribbean countries and no East Caribbean countries have established National Action Committees;
- (ii) there was a general lack of information on the Decade and on the Seminar; (This indicates partly the lack of communication on the subject at the national level);
- (iii) it is quite clear that in most instances East Caribbean countries will have little to contribute to horizontal co-operation and will therefore have to be considered, a priori, as recipients rather than donors;
- (iv) it is not surprising therefore that the main interest of water and sanitation personnel from the LDC's is in what resources or benefits will accrue to their countries as a result of the Seminar,

c) Water Projects

The Caribbean Basin Water Management Project involves the following 10 Caribbean countries and territories: Anguilla, Antigua, Barbados, British Virgin Islands, Dominica, Grenada, Montserrat, St. Kitts/Nevis, St. Lucia and St. Vincent is financed by Canada and the Netherlands and is executed by PAHO (Barbados). The Project commenced in July 1975 and is due to be completed at the end of December 1981.

This is a training project. Between July 1975 and December 1977 emphasis was placed on training at the top levels of the Water utilities and involved fellowships outside the Caribbean. Since 1978 emphasis has been on training middle and lower level personnel and involve TCDC-type activities including training of trainers, country workshops involving trainers from other countries and developing local training materials. Some external fellowships were also provided. There is a proposal for continuation of the project for another three years and it is reported that eight participating countries have committed themselves to providing some financial support.

Two major comments made at the Conference were: (i) that project management and supervision during the new projected 3-year phase of the project should pass to Caribbean nationals; (ii) training of higher level personnel should be resumed (as was the case during the earlier phase of the project).

The Ground Water Development Project Caribbean - Not much is known about this project. It is evidently an "umbrella" project involving funding from UNDP as well as from other sources including U.N. Technical Assistance funds and is expected to be implemented during 1982-85. A cost of US\$0,8 million has been mentioned but this may be the UNDP component only. Country projects are to be financed from UNDP national allocations with apparently some funding from sub-regional allocation. Reportedly some 10 countries are involved so far, and work has commenced in St. Vincent. First steps included geological surveying in St. Vincent to supplement inadequate mapping data. One aspect of interest from the viewpoint of horizontal co-operation is the assistance extended by the Barbados Water Authority in making its drilling rig and crew available (at a cost) to the project.

The Caribbean Environmental Health Institute - Establishment of this institute was a main recommendation of the Caribbean Environmental Health Strategy formulated in late 1978 under the auspices of the CARICOM Secretariat,

PAHO/WHO and the Commonwealth Secretariat. Among the activities foreseen for the institute are the following:

- Co-ordination of activities in assessing environmental conditions
- Man-power development and training
- Research
- Provision of expert technical assistance
- Assist in the transfer of technology
- Assistance in the drafting of relevant legislation
- Preparation of guidelines for regional action

St. Lucia has been chosen as the site of the Institute and preliminary work has already begun. Staffing, at least in the early stages, will consist of a Manager and three substantive staff plus technical and project personnel.

## II. RECOMMENDATION ADDRESSED TO ECLA

As mentioned earlier serious problems face the East Caribbean countries in particular which inhibit their abilities to improve their water supply and sanitation situation and attain the objectives of the International Drinking Water Supply and Sanitation Decade. Reference to these problems was made continually throughout the meeting.

Among the recommendations considered on the last day of the Conference is one directed to ECLA in its capacity as co-ordinator of Latin American regional horizontal co-operation activities for the Decade. The draft text is included at 1,3 in Annex II "Draft Recommendations of the Conference". Essentially the recommendation draws attention to the serious problems facing the Caribbean LDC's in connexion with water supply and sanitation and seeks the assistance of ECLA.

## III. ACTIONS TAKEN OR PLANNED BY ECLA (PORT OF SPAIN)

The ECLA Seminar - It was mentioned above that some Conference participants had indicated the general lack of information on the Decade and the activities of ECLA in this regard. The ECLA representative to the meeting

gave a brief outline of the responsibilities assigned to CEPAL Santiago and its major activities beginning with involvement in the Mar-del-Plata Preparatory Process. The representative also mentioned the communications, reports, documents, etc., that had been sent to the various governments and the invitations extended by the Executive Secretary to Caribbean countries to attend the Seminar on Horizontal Co-operation in the Dominican Republic. Reference was also made to the Press releases distributed to Caribbean News Media by United Nations Information Centre, Trinidad which included contributions by ECLA Caribbean Office. It should also be noted that just prior to the Conference information on the Seminar had been sent to Ministries of Health (previously communication had been sent to Ministries of Public Utilities and national water agencies as well as to Ministries of External Affairs).

It has now been decided to send copies of material on the Decade and the Seminar on a continuing basis to the important Ministries of Financing and Planning who are involved with planning and financing aspects of water and sanitation,

Two other courses of action have been set in motion:

- (i) short questionnaires have been circulated to East Caribbean countries requesting selected information on institutional aspects of water and sanitation. The object of this exercise is to prepare a short note outlining more concretely the situation in the LDC's. This information may be useful at the upcoming seminar in the Dominican Republic but preparation of the note will be dependent on whether replies are received;
- (ii) bearing in mind references made at the Conference on the importance of information and the suggestions to include in projects creation or strengthening of information resources on water and sanitation, discussions have been held with the head of the CDCC Caribbean Documentation Centre.

It has been agreed to prepare a selected bibliography of documentation on water and sanitation in the Documentation Centre and a note on the objectives, structure and work of the Documentation Centre including suggestions as to how water and sanitation may more explicitly be included. Consideration is being given to means of including more formal activity in the work programme of the Centre during the upcoming biennium.



ANNEX I

TIME TABLE

Tuesday 27 October

Arrival and Registration

Wednesday 28 October

9.00 a.m. - 9.45

Opening Ceremony

- B R E A K -

10.15 a.m. - 11.00 a.m.

St. Vincent and The Grenadines'  
Water Supply - R.W. France

11.00 a.m. - 11.45 a.m.

The International Water Supply  
and Sanitation Decade - Ron  
Williams - PAHO

- L U N C H -

1.30 p.m. - 2.15 p.m.

Waste Control - Harry Giles (PAHO)  
Trinidad

- B R E A K -

2.45 p.m. - 3.30 p.m.

Update on Pumping - A. Smith - UWI

- Scenic Drive -

Thursday 29 October

9.00 a.m. - 9.45 a.m.

Manpower Training - N. Carefoot -  
PAHO

- B R E A K -

10.15 a.m. - 11.00 a.m.

Water Consumption Patterns -  
H. Sanchez - St. Lucia Water  
Authority

11.00 a.m. - 11.45 a.m.

Groundwater development in  
St. Vincent and The Grenadines -  
P. Hadwen

- L U N C H -

Chairman H. Sanchez

1.30 p.m. - 2.15 p.m.

Mass Communication for a Water  
Utility - C. Theobalds, Manager  
Radio St. Vincent.

- B R E A K -

2.45 p.m. - 3.30 p.m.

Financial Information for the  
Utility Manager - R. Bennett -  
Chief Accountant, St. Vincent  
Water Authority.

Friday 30 October

9.00 a.m. - 9.45 a.m.

CARICOM/UNEP Waste Management  
Project - Ray Noel

Project Funding Agencies -  
Peter Hadwen

- B R E A K -

10.15 a.m. - 11.45 a.m.

Business Meeting

- L U N C H -

2.30 p.m.

Field Trip

ANNEX II

12TH ANNUAL WATER ENGINEER CONFERENCE

ST. VINCENT, 28-30 OCTOBER 1981

DRAFT RECOMMENDATIONS

1. INTERNATIONAL DRINKING WATER SUPPLY AND SANITATION DECADE (1981-1990)

1.1 Recommendations to Caribbean Governments

- (a) greater individual Government investment must be made in Water Supply and Sanitation with special attention to manpower development, community participation and mobilization of financing from local resources.
- (b) development of mechanisms and opportunities to achieve the aims of the Decade and to secure more Technical Co-operation among Developing Countries (TCDC) activities in the Caribbean.
- (c) special efforts to initiate and sustain Decade planning and programme implementation in each Caribbean Country, including creation of the National Action Committees.

1.2 Recommendations to Technical Assistance and Donor Agencies

- (a) increase in external assistance for Water Supply and Sanitation Projects in the Caribbean, together with an easing of the pre-conditions and documentation requirements for such projects.
- (b) PAHO assistance is necessary to mount an inter-country Workshop to assist the LDCs in the Caribbean to initiate Decade planning and implementation on activities in 1982.

1.3 Recommendation addressed to the ECLA Seminar on Horizontal Co-operation in the context of the International Drinking Water Supply and Sanitation Decade

Bearing in mind the objectives of the Seminar on Horizontal Co-operation for the International Drinking Water Supply and Sanitation Decade,

Noting that successful participation and realisation of the objectives of the Seminar, and indeed of the Decade, depends on the level of national activities pursued, the 12th Annual Caribbean Water Engineers' Conference wishes to bring to the attention of the Seminar and to the Economic Commission for Latin America (ECLA), the serious situation in most of the smaller states of the Eastern Caribbean with respect to the scarcity of technical personnel which inhibits the results these countries can be expected to achieve and suggests that the avenue of horizontal co-operation or other avenues be utilized to help overcome this situation in the Eastern Caribbean countries,

2. CARIBBEAN BASIN WATER MANAGEMENT PROJECT - (PAHO)

2.1 Recommendations to Caribbean Governments

- Government study of circulated proposal for 1982-1984 phase and attendance at up-coming meeting with firm commitment to support continuation of this project,

2.2 Recommendation to Technical Assistance and Donor Agencies

- Continuation of their support to this important training project as proposed,

3. ANNUAL CARIBBEAN WATER ENGINEERS CONFERENCE

3.1 Recommendations to Caribbean Water Engineer

(a) A committee of three - The Environmental

Health Institute, a representative of the

Water Engineers and a representative of

PAHO to be appointed to plan for the Annual

Conferences, with special emphasis on;

- a more structured Conference/Workshop

in the broader context of environmental

health engineering and comprising policy

and technical sessions,

- the provision of a secretariat and the

necessary support services,

the establishment of mechanisms for making official recommendations to member Governments and to International/Donor Agencies, (The present practice of Conference site rotation need not be affected).

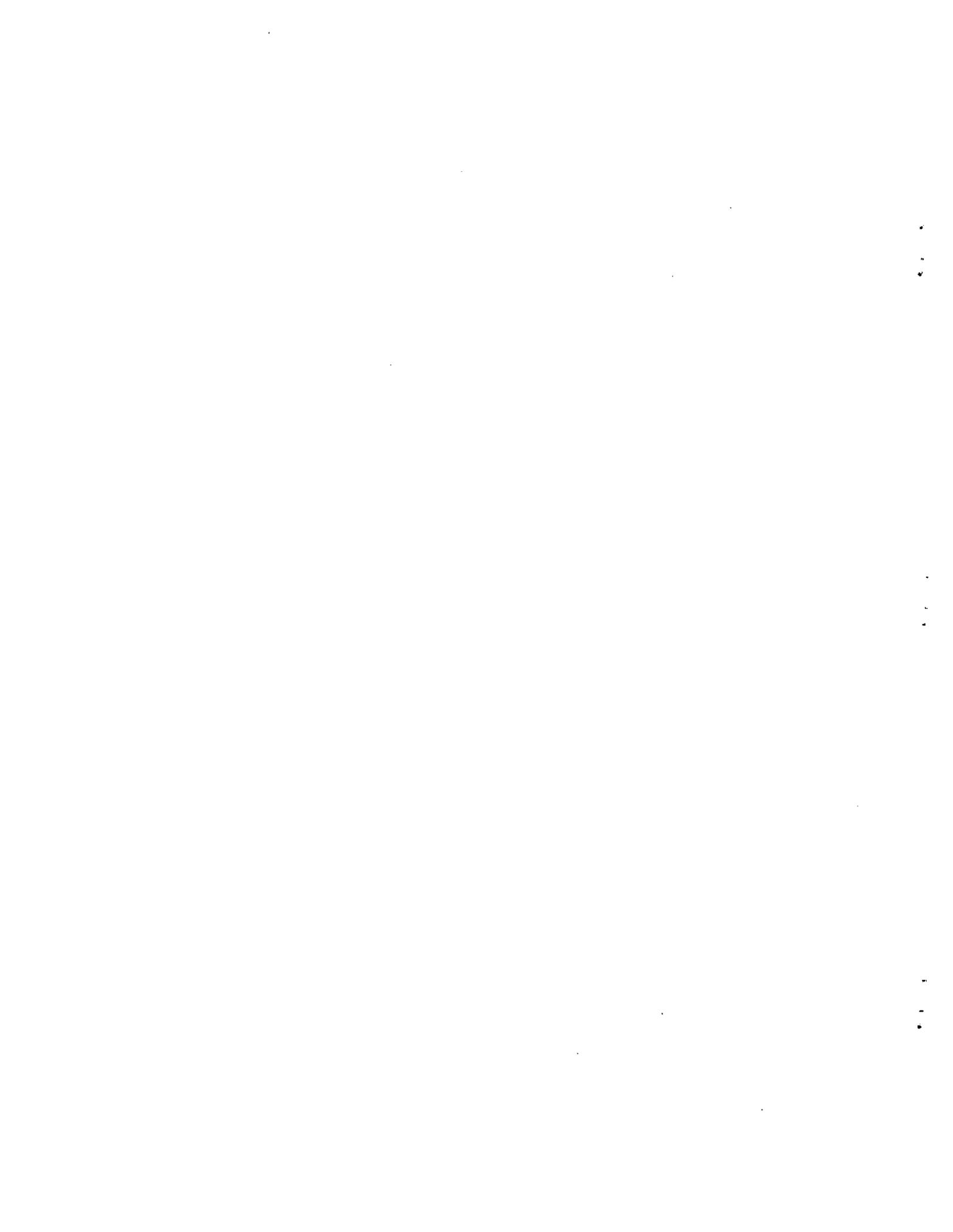
(b) The 13th Annual Caribbean Water Engineers Conference should be held as follows:

(i) Location ..... Suriname

(ii) Central Theme ..... The Strengthening of Water (and Sewerage) Agencies in the Caribbean

- Institutional Review (management, organization and accounting)
- Manpower Development and Training
- Development Programmes
- System Operation and Maintenance
- System Financing and Water Rates

(iii) Conference ....., Workshop techniques, including work groups, policy and technical sessions and recommendations for follow-up action,



TWELFTH ANNUAL CONFERENCE

OF

CARIBBEAN WATER ENGINEERS

HELD AT

VILLA LODGE HOTEL, ST. VINCENT

OCTOBER 28 - 30, 1981

Notes on Presentation on CARICOM/UNEP Project

- The Protection of the Marine and Coastal Environment of the Caribbean Islands
- The Caribbean Environmental Health Institutes (CEHI)

The development of the Environmental Health Strategy for the Commonwealth Caribbean - 1977 - 78 involving FAO/WHO, UNEP/ECLA, CARICOM, CDB, USAID made major recommendations concerning water supply, liquid waste and excreta disposal, solid waste management, industrial waste disposal, beach pollution, pesticides.

CARICOM promoted the establishment of a Caribbean Environmental Health Institute to have responsibility for the following environmental health activities:

- Advisory services to member Governments
- Manpower Development and Training
- Information collection and dissemination
- Research



The concept was tested by PAHO, accepted by the Grenada Meeting, October, 1978 and taken to a Conference of Ministers responsible for Health. Feasibility Study done in 1979 - supported concept fully.

Government of St. Lucia offered facilities at the Bilharzia research and Control Department Enter UNEP/RSPAC (United Nations Environment Programme/ Regional Seas Programme Activity Centre)

- CEHI seen as a local point for the implementation of a . activities included in the wider Caribbean Action Plan for the English speaking sub-region.
- Project developed to facilitate the establishment of CEHI  
US\$ 250,000

#### Waste Management Studies

#### Pollution Monitoring Service

Emphasis on recruitment of Caribbean Nationals - Engineers and Scientists.

- Other Agencies principally USAID and PAHC agreed to site projects at the Institute to further its objectives when CARICOM member countries agree to establish it and show commitment.



July 1981

Eight member countries sign CEHI Agreement and request that CARICOM take steps to establish Institute by January 1982

In Agreement with Government, CARICOM is complying with this mandate.

Project Implementation

Waste Management Studies completed in

Antigua	St. Lucia
Grenada	St. Kitts - Nevis

Contracts prepared for

Belize	Montserrat
Bahamas	St. Vincent
Dominica	Trinidad & Tobago

Pollution Monitoring Service

3 Scientists employed, occupying Laboratories at Bilharzia Research and Control Department

- Preliminary studies being done
- Laboratory equipment ordered



Projections 1982 - 84

Provision of Advisory Services to member States

- Agencies will be invited to provide financial support to hire experts to work in Countries to develop projects requested by Governments.

• Continuation of pollution monitoring activities

Manpower Development - Environment

- Training of Environmental Health Workers
- Coordination of uniform curriculum development of regional institutions
- Holding of Seminars at CEHI

Other Activities

- Preparation of uniform Building Code
- Disaster Preparedness
- Needs of Research

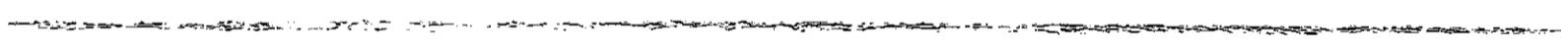
Raymond Noel

Caribbean Community  
Secretariat

Georgetown

Guyana

---



## DELEGATES OF 12TH ANNUAL WATER ENGINEERS CONFERENCE

<p>Alfred Duberry Week Road Plymouth Montserrat W.I.  Tel: 2634</p>	<p>Peter Hadwen UN Water Project C/o Box 625C Bridgetown Barbados</p>
<p>E. Tsai-Meu-Chong P.O. Box 2561 Paramaribo Suriname  Tel: 76854, 75453</p>	<p>David Smith Civil Engineering Dept. U.W.I. St. Augustine Trinidad W.I.</p>
<p>Lea Astwood P.O. Box 38 Grand Turk Turks and Caicos Islands W.I.</p>	<p>S.A. French Caribbean Development Bank P.O. Box 408 Willey, St. Michael Barbados</p>
<p>Anne I. de Jong P.O. Box 363 Kingstown St. Vincent</p>	<p>H.M. Sanchez St. Lucia Central Water Authority Castries St. Lucia</p>
<p>Thomas J. Padden Pan American Health Organization P.O. Box 398 Port-of-Spain Trinidad W.I.</p>	<p>Elliott Cambridge Central Water and Sewerage Authority P.O. Box 363 Kingstown St. Vincent</p>
<p>H.A. (Nick) Sealy C/o Barbados Water Authority Pine, St. Michael Barbados</p>	<p>Robert A. Bennett Central Water and Sewerage Authority P.O. Box 363 Kingstown St. Vincent</p>
<p>Robert Goodwin Caribbean Development Bank P.O. Box 408 Willey St. Michael Barbados</p>	<p>Raymond Noel Caribbean Community Secretariat P.O. Box 10827 Georgetown Guyana</p>
<p>Wilfred Whittingham UNECLA P.O. Box 1113 Port-of-Spain Trinidad W.I.</p>	<p>Neil F. Carefoot PAHO/WHO P.O. Box 308 Bridgetown Barbados</p>

Robert W. France  
Central Water and Sewerage Authority  
P.O. Box 363  
Kingstown  
St. Vincent

Harry J. Giles  
PAHO/WHO  
P.O. Box 898  
Port-of-Spain  
Trinidad W.I.

Ronald A. Williams  
Area Engineer Adviser  
C/o PAHO/WHO  
P.O. Box 508  
Bridgetown  
Barbados

Paul Lynch  
Central Water and Sewerage Authority  
P.O. Box 363  
Kingstown  
St. Vincent

•  
•  
•

•  
•  
•

•  
•  
•

•  
•  
•

•  
•  
•

•  
•  
•