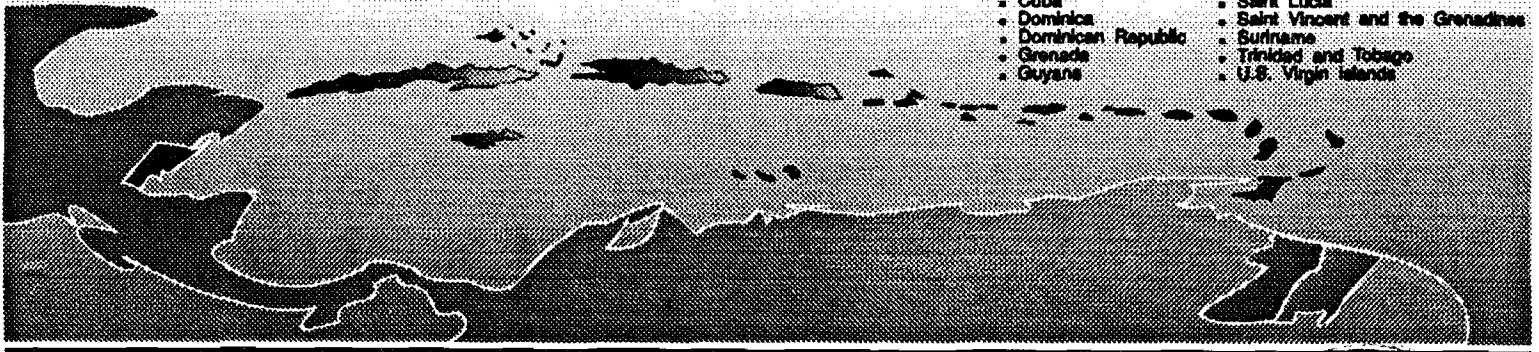




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CARIBBEAN COUNCIL FOR SCIENCE AND TECHNOLOGY

Meeting of Agencies/Institutions to Collaborate
in Science and Technology Programming in the Region
Port-of-Spain
21-22 January 1993

GENERAL
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8 February 1993
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**REPORT OF THE MEETING OF AGENCIES/INSTITUTIONS TO
COLLABORATE IN SCIENCE AND TECHNOLOGY PROGRAMMING IN THE REGION**



UNITED NATIONS
ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN
Subregional Headquarters for the Caribbean
CARIBBEAN DEVELOPMENT AND COOPERATION COMMITTEE



REPORT OF THE MEETING OF AGENCIES/INSTITUTIONS TO COLLABORATE IN SCIENCE AND TECHNOLOGY PROGRAMMING IN THE REGION

A meeting of agencies and institutions active in the field of science and technology was convened by the Caribbean Council for Science and Technology (CCST) on 21 and 22 January 1993 at the Subregional Headquarters for the Caribbean of the Economic Commission for Latin America and the Caribbean (ECLAC) in Port-of-Spain, Trinidad and Tobago. The meeting which followed the workshop/seminar to develop a plan of action for science and technology for the Caribbean was convened for the purpose of science and technology planning in the region and to fulfill the CCST work programme for 1992-1993.

The Director of the ECLAC Subregional Headquarters for the Caribbean in Port-of-Spain, Mr Clyde C. Applewhite, welcomed participants to the meeting and stressed the high priority placed on science and technology as it impinged on the economic and social work of ECLAC and on member countries. He emphasized the importance of the meeting at a time when, more than ever, it was necessary to evaluate the contribution of science and technology to member countries' development and to examine how best agencies and institutions could jointly meet the increasing need for science and technology in member countries.

Mr. Donatus St. Aimée, Economic Affairs Officer, Science and Technology, gave an overview of the objectives of the meeting. He stated that the meeting was a follow-up activity arising out of the plan of action for science and technology developed in September 1992. The objective was three-fold; to examine how the activities identified for action could best be developed into projects and implemented by the most appropriate agencies and institutions; to assist the CCST in developing a long-term work programme; and finally, to identify the necessary assistance that could be rendered to national science and technology focal points to improve their effectiveness.

The meeting was attended by representatives of the following agencies: Caribbean Agricultural Research and Development Institute (CARDI), Caribbean Community Secretariat (CARICOM), Inter-American Institute for Cooperation on Agriculture (IICA), Institute of Marine Affairs (IMA) of Trinidad and Tobago, National Institute of Higher Education, Research, Science and Technology (NIHERST) of Trinidad and Tobago, Programa Bolivar/Latin American Economic System (SELA), United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations Industrial Development Organization (UNIDO). The ECLAC Subregional Headquarters for the Caribbean provided secretariat services for the meeting. The list of participants is given at the annex attached.

The following agenda for the meeting was adopted as follows:

1. Report of workshop to develop a plan of action for science and technology and follow-up action to be taken
2. Update on the project "Technology extension service"
3. Science and technology award scheme
4. Technology assessment service
5. Compendium of technical services
6. Caribbean Biotechnology Network
7. Caribbean Community Ocean Sciences Network (CCOSNET)
8. Caribbean/Latin American collaboration in science and technology: Mechanisms for action
9. Outline of science and technology programme for the region for a five-year period and identification of sources of funding
10. Convening of Meeting of CARICOM Ministers with responsibility for science and technology

Agenda item 1: Report of workshop to develop a plan of
action for science and technology and follow-up action to be taken

In presenting the report of the workshop which had been held in Saint Lucia, 8-11 September 1992, the secretariat reported that five sets of action programmes were produced for national plans in science and technology development as follows: (a) technical assistance, collaboration and popularization in the areas of science and technology policy; (b) marine science and technology, natural resource utilization and environmental issues; (c) human resource development, science education and science popularization; (d) technology transfer, adaptation and innovation; and (e) sectoral collaboration. The report would be used as the basis for deliberations on identifying follow-up action.

Agenda item 2: Update on the project "Technology extension service"

The secretariat informed that the three year project would be executed in six Caribbean countries at a cost of US\$ 1.6 million and was presently being considered by UNIDO for funding. Upon conclusion, the project would be evaluated to determine whether any modifications would be necessary before member governments assumed responsibility for it.

It was noted that in many member countries the officer responsible for science and technology did not focus exclusively on the subject. The proposed technology extension service, which would link with already existing regional technology support systems, however, would provide dedicated service to science and technology, disseminating information and providing solutions to problems as they arose.

It was suggested that the headquarters of the Caribbean Network for Integrated Rural Development (CNIRD) be informed of the technology extension service so that it could provide linkages with its constituent parts in member countries.

Agenda item 3: Science and technology award scheme

The representative of CARICOM introduced the discussion on the regional technology award scheme. The Science and Technology Policy for the Caribbean adopted in 1988 by the First Meeting of the Standing Committee of Ministers Responsible for Science and Technology proposed a CARICOM Community Award for technology innovation. At their second meeting in 1990, the Ministers endorsed the proposal and agreed to appoint a committee to refine the secretariat's proposal. Each member country was asked to mobilize funds internally to contribute towards the award.

Participants felt that the quantum of the award was less important than the recognition that would be accorded to the recipients and that the awards had a much greater role as a mechanism for making the wider community aware that innovation was taking place.

The UNESCO representative informed the meeting that a regional conference of innovators, sponsored by UNESCO, would be held later this year and that further information on this meeting would be circulated in due course.

Agenda item 4: Technology assessment service

The CARICOM representative informed the meeting on progress on the establishment of a technology assessment service, as outlined in the CARICOM Science and Technology Policy. The rationale for such a service was that the region spent considerable resources on technology acquisition and that use of technology assessment would yield savings and increase investment. It was noted that since the region already contained some elements of this capability, these needed to be pooled and integrated into a resource base in order to identify gaps and develop mechanisms to fill them. In 1990, the Ministers had endorsed and appointed a steering committee to investigate the feasibility of such a service through a pilot scheme.

The discussion focused on the need to train persons to undertake technology assessment, to build up institutions of excellence and to advertise their services to the potential clientele.

Agenda item 5: Compendium of technical services

The representative of CARICOM presented the background to this item, which also arose from the CARICOM Science and Technology policy. The compendium would provide a register of persons with problem solving capabilities in various fields, including technology assessment. It would supplement the Caribbean Technology Consultancy Service (CTCS) of the Caribbean Development Bank (CDB) and provide ready access to local and regional technologists and scientists.

Agenda item 6: Caribbean Biotechnology Network

The representative of UNESCO presented an update on the Caribbean Biotechnology Network. The UNESCO Port-of-Spain Office was instrumental in promoting the establishment of the Caribbean Biotechnology Network (CBN), within the framework of project UNDP/UNESCO/RLA 87/023. He noted that since its inaugural meeting in Port-of-Spain in February 1988 the CBN had conducted two subsequent consultations, in Bridgetown in August 1990 and in Kingston in July 1992.

He indicated that the CBN provided a mechanism for Caribbean biotechnologists to collaborate in addressing problems for which biotechnology might provide solutions. Researchers in the Biology Department at the Cave Hill Campus of the University of the West Indies were currently spearheading research in two areas, bacterial spot in relation to peppers and tomatoes and the creation of varieties of White Lisbon yam which were resistant to anthracnose. These topics, in particular the work on yam, could have significant implications for agriculture in the Caribbean. For example, the production of White Lisbon yam, the most important commercial variety in Barbados and the Eastern Caribbean, had dramatically declined as a result of the anthracnose disease.

Another activity of the Network outlined was the production of regular issues of a Caribbean Biotechnology Newsletter to service network members.

Agenda item 7: Caribbean Community Ocean Sciences Network (CCOSNET)

The representative of the IMA presented an update on CCOSNET, the proposal for which arose from the second meeting of CARICOM Ministers of Science and Technology. The network which comprised the IMA, as coordinator, the University of the West Indies, Bellairs Institute, the OECS Fisheries project, the Caribbean Environmental Health Institute (CEHI), Caribbean Meteorological and Hydrological Institute and the University of Guyana exchanged information on marine science and remote sensing. It was intended to follow-up on work conducted by the Caribbean Oceanography Resources Exploration (CORE) project and would conduct an inventory of physical and human needs, develop an

environmental and oceanographic database, facilitate information sharing and expertise and develop a plan of action for regional governments for strengthening capabilities in conducting marine research. It would also coordinate with ships of opportunity conducting marine research exploration in Caribbean waters and secure berths on these ships for Caribbean marine scientists as is provided for by the Law of the Sea Convention.

The Network was facilitated by the IMA's links with international organizations and by a newsletter which was also published. UNESCO would be providing the Network with state-of-the-art computer information. It was noted that although a satellite remote sensing capability was available to Caribbean countries, there was a lack of trained persons to interpret the data and that the IMA was in the process of ascertaining where such training was available. The Commonwealth Science Council had pledged support for this area. The meeting noted that under the OAS Country Programme, countries could request training in remote sensing.

Agenda item 8: Caribbean/Latin American collaboration
in science and technology: Mechanisms for action

The secretariat introduced a short paper that had been prepared as background information and invited the representative of the Bolivar Programme to address the meeting.

The meeting was informed that the Bolivar Programme for Regional Technological Integration, Innovation and Industrial competitiveness was launched on 31 March 1992. The Programme encouraged cooperation among enterprises, research centres and public and private organizations to develop and improve the productive capacities of Latin America and improve the competitiveness of their goods and services on the international market. The activities of the Programme were focused on eliminating the gap separating research centres from productive enterprises. In this regard, its activities were aimed at fostering dialogue between enterprises and research centres; establishing joint ventures between enterprises and research centres of two or more countries; generating new products, processes and services and improving those in existence in order to broaden markets; achieving homogenous international quality standards and strengthening productive capacity in each country.

For its implementation, the Bolivar Programme relied on liaison offices (antennas) promoting joint activities between enterprises and research and development centres in two or more countries. The Liaison mechanism promoted projects that met its eligibility requirements; evaluated and approved

selected projects; created, selected and reoriented incentives and financing systems for various project phases; and provided information on financing institutions for public and private projects at the national, regional and international levels.

Thirteen national commissions have been established in Latin America. UNESCO and other private and public institutions have provided support and financial backing while the Government of Venezuela has provided seed capital. Cooperation agreements have been established with many regional and international organizations.

The representative of the Bolivar Programme suggested that the CCST should seek closer ties with the Programme by requesting representation on it. She stated that the Bolivar Programme would welcome the participation of CCST as the liaison in the Caribbean (an antenna) for financing projects, enterprises and research centres.

The meeting expressed its appreciation to the SELA for encouraging and making possible the participation of the representative of the Bolivar Programme.

Agenda item 9: Outline of science and technology programme
for the region for a five-year period and identification of sources of funding

The Plan of Action for Science and Technology for the Caribbean provided the basis for discussion on this topic. In examining the document, participants selected activities for which they felt specific modalities could be developed and implemented.

Proposed activities to be developed into projects

1. Science popularization

(a) Sharing Trinidad and Tobago's science popularization programme (YAPOLLO) with other CCST countries. The National Institute of Higher Education, Research, Science and Technology (NIHERST) has developed a mobile science exhibition of interactive exhibits, including experiments and activities. The exhibition aims at stimulating interest in science and technology by presenting phenomena and experiments which show how things work at first hand and by suggesting questions which will, in turn, inspire discovery and invention.

(b) Supporting activities from the general programme for science popularization as identified in Plan of Action report.

(c) Enhancing management and planning skills and the efficiency of national planners and sectoral managers. This could be done by conducting frequent awareness, sensitization workshops and

seminars aimed at revealing and analyzing problems, as well as by refined methodologies of collaborative planning programmes.

2. Assisting CCST focal points to develop their own science and technology work programmes.
3. Developing project writing skills for scientists/technologists in member countries.
4. Facilitating foreign language training for scientists and technologists.
5. Facilitating contact and interaction between indigenous scientists and technologists and their regional and international peers (through secondments, participation in conferences and seminars, etc.).
6. Supporting activities at recognizing outstanding contributions by scientists and technologists to social and economic progress, through national and regional awards and fellowships.
7. Supporting education and public awareness of the marine environment.
8. Supporting the development of the Institute of Marine Affairs (IMA) into a regional specialised entity for conducting research and acting as an information centre for the marine environment of the region.
9. Developing a project to create a database and a directory of individuals and firms with experience in technology transfer and negotiation services available in the region in order to inform would be purchasers of technology of available services. The directory should be published and distributed for regional use.
10. Create a cadre or team of managers fully knowledgeable of the whole sectoral strategy and operations.

These areas would form the basis of the work programme of the CCST for the next five years. Projects would be developed and submitted to relevant and interested agencies for funding and technical assistance.

The representative of CARDI informed the meeting on the activities of the Institute which was particularly interested in the area on environment and natural resources management and in Spanish language training.

CARDI served as the Caribbean regional branch office for the Centre for Technical and Rural Cooperation in Agriculture (CTA), established under the Lomé convention. It facilitated information flow through CTA to other regions and vice versa. These activities included information networking, CD-ROM stations, databases, training facilitation and participation in conferences and meetings.

In the general discussion, the meeting was informed that UNESCO had a three month biotechnology programme available to scientists/technologists actively working in this field.

In examining the report of the working group on marine science and technology, natural resource utilization and environmental issues, the meeting was informed that there were several regional megaprojects being undertaken. The IMA and CCST agreed to collaborate on circulating information on these activities.

In the field of education and public awareness on the marine environment the IMA volunteered to share its experiences in this area with other countries.

IICA informed the meeting of its project on technology transfer in agriculture in the Organization of Eastern Caribbean States (OECS) (Program 5) and offered to send information on this to CCST. CARDI also outlined their programme on technology adaptation and transfer.

With respect to seeking funding, the meeting was informed that many donors were now focusing on private sector participation in project activities and were requiring that organizations bid for funds.

The meeting was also informed that IICA had a training unit on project writing, located within its Barbados office. It was suggested that CCST collaborate with IICA, given CCST's activity in this area.

It was suggested that since the Third World Academy had a fund for South-South technology transfer, the CCST could approach the Academy with a view to acting as the agency for the region.

Agenda item 10: Convening of meeting of CARICOM Ministers with responsibility for science and technology

The meeting was informed that the CARICOM Secretariat proposed to convene a meeting of Ministers with responsibility for science and technology, tentatively scheduled for September, 1993.

The following items were suggested for inclusion in the agenda:

(a) The need to provide additional resources to regional institutions conducting research, particularly the University of the West Indies. This would consolidate currently fragmented research resources and result in greater research results.

(b) CCOSNET, and in particular, the funding mechanism for it beyond 1993.

(c) That the Ministers be apprised of action taken on decisions made at the last meeting, and that they be asked whether they wished action to continue on those issues and what new issues they wished addressed.

In addition, it was agreed that the presence of Ministers and high-level policy makers at the meeting would afford the opportunity to discuss a topical issue, with either a presentation or a panel discussion. One such topic could be the place of science and technology and research and development in the development process in the Caribbean. Other suggested topics could be submitted to the CARICOM Secretariat for consideration.

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