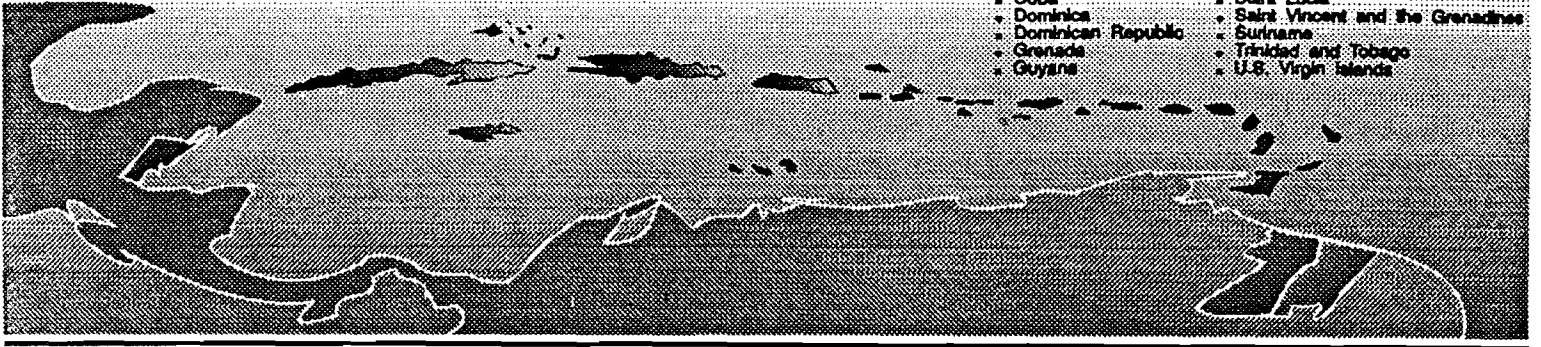




UN ECLAC/CDCC

- Antigua and Barbuda
- Aruba
- Bahamas
- Barbados
- Belize
- Br. Virgin Islands
- Cuba
- Dominica
- Dominican Republic
- Grenada
- Guyana
- Haiti
- Jamaica
- Montserrat
- Netherlands Antilles
- Puerto Rico
- Saint Kitts and Nevis
- Saint Lucia
- Saint Vincent and the Grenadines
- Suriname
- Trinidad and Tobago
- U.S. Virgin Islands



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 LC/CAR/G.501  
 CCST/97/2  
 14 May 1997  
 ORIGINAL: ENGLISH

CARIBBEAN COUNCIL FOR SCIENCE AND TECHNOLOGY

Twentieth Executive Committee Meeting  
 of the CCST  
 7-8 April 1997  
 Port of Spain, Trinidad and Tobago

REPORT OF THE TWENTIETH EXECUTIVE COMMITTEE MEETING  
 OF THE  
 CARIBBEAN COUNCIL FOR SCIENCE AND TECHNOLOGY (CCST)



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

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**REPORT OF THE TWENTIETH MEETING OF THE EXECUTIVE COMMITTEE  
OF THE  
CARIBBEAN COUNCIL FOR SCIENCE AND TECHNOLOGY (CCST)**

Port of Spain, Trinidad and Tobago, 7-8 April 1997

The twentieth meeting of the Executive Committee of the Caribbean Council for Science and Technology (CCST) was convened in Port of Spain, Trinidad and Tobago, from 7 to 8 April 1997.

Members of the Executive represented at the meeting were: Cuba, Grenada, Guyana, Jamaica, Saint Lucia, Trinidad and Tobago and the United States Virgin Islands. The CCST secretariat was represented by the Secretary of the CCST, Mr Donatus St. Aimee. The Economic Commission for Latin America and the Caribbean (ECLAC) Subregional Headquarters for the Caribbean was represented by Mr. Jorge Cordero, Administrative Officer, and Mr. Radcliffe Dookie, Programme Officer. A list of participants is given at Annex 1.

**SUMMARY OF DISCUSSIONS**

Opening of the meeting

The meeting was opened by the Chairman of the Council, Dr Navin Chandarpal, representative of Guyana. In welcoming the participants, he noted that the meeting had been held to capitalize on the opportunities offered by the various forums to influence processes related to science and technology in the Caribbean Community (CARICOM). The draft agenda was reorganized to facilitate the participation of the CARICOM Secretariat and consideration of the Plenary Session and Executive Committee meeting reports were included as agenda item 1.

Agenda Item 1

Consideration of the report of the nineteenth Executive Committee meeting, and the report of the  
fourteenth Plenary Session

The Secretary indicated that follow-up from the last Executive Committee meeting included provision of information on the outcome of the World Solar Summit (WSS) in Harare, during September 1996 by the representative of Jamaica; and the inclusion of Grenada as a member of the Executive Committee. While the two short reports circulated by the representative of Jamaica were felt to be useful, it was agreed that it was necessary to obtain a list of the final projects approved. The Secretary indicated that there seemed to be a scattering of efforts, based on the fact that a number of countries had submitted projects, and the nature of these were not known to the secretariat. The secretariat had made efforts to organize meetings with the Latin American Energy Organization (OLADE), in order to initiate WSS activities under the OLADE-CCST memorandum of understanding but without success to date. The report of the nineteenth Executive Committee meeting was adopted.

Discussing the follow-up to the meeting, representatives noted the difficulty in obtaining feedback from OLADE, as the regional coordinating body recognized by the WSS. The meeting was informed that the Draft Declaration and Plan of Action, adopted at the Solar Summit could be obtained from the United Nations Educational, Scientific and Cultural Organization (UNESCO) country offices. According to the representative of Saint Lucia, follow-up to the WSS included an intergovernmental review of the Plan of Action, to be held in June at the UNESCO Headquarters in Paris. This meeting would review the project concepts and formulate them in the United Nations Development Programme (UNDP) format for funding.

The Chair stated that it was apparent that regional projects had been accepted, and the mandate for implementation had been passed to regional organizations, in this case, CARICOM and OLADE. The CCST, he stated, may subsequently be recognized as the organization responsible for implementation of Caribbean regional projects.

He cautioned that other intergovernmental organizations were also considering energy-related programme activities, and these should be investigated to avoid duplication, keeping in mind that Cuba would be excluded from activities in some forums, for example, the Organization of American States (OAS).

The Secretary informed the meeting on promising discussions held with a representative of the Inter-American Development Bank (IDB) on the possibility of obtaining funding for Caribbean renewable energy and energy efficiency projects under an IDB-Department of Energy (United States Government) Memorandum of Understanding. Follow-up to this meeting, he said, was dependent on the governments sending indications of interest, and agreement with having the CCST coordinate activities for the Caribbean. It was noted that Guyana had already benefited from the programme, but that a regional approach would enable benefits to be spread to non-IDB member countries, such as Cuba.

In Guyana's role as coordinator for environment and sustainable development within CARICOM, the representative of Guyana reported on a follow-up meeting to the Bolivia Summit on Sustainable Development to be convened by the OAS.

Initiating the examination of the report of the fourteenth plenary session, the Secretary thanked the Government of Grenada for the hospitality extended, and for the opportunity to directly interface with the political directorate. Suggesting that this would assist to promote science and technology in the Caribbean, he recommended similar discussions at other plenary sessions.

He then updated Committee members on the current status of CCST activities.

### **Technology Extension Service**

Regarding the Technology Extension Service Project, pre-project activities included a meeting with potential funding agencies, and a round of consultations in the OECS countries. The

consultations had indicated general support for the project in all countries. Questions raised focused primarily on the sustainability of project activities, the salary of the extension officer, and the possible need for more than one technologist per country. Discussions with funding agencies had resulted in funding for the training components of the project to the amount of \$40,000 from the UNDP/TCDC unit. In addition, discussions with representatives of the European Union and the French Cooperation Mission indicated that the project was suitable for funding under Lome III from the STABEX funds. Countries needed, to indicate their agreement with the use of these allocations for project activities. It was envisaged that project activities would start by the end of 1997. Training activities, while focusing on the participating countries, could be extended to personnel from other CCST member countries. Critical aspects of the project identified were the selection of the extensionist, and the linkages forged between the service and institutions at the national, regional and international levels.

### **Agro-processing**

The agro-processing project which had been sent to focal points for comment and support, had been approved for funding by the OAS, but due to a shortage of funds, could not be implemented immediately. It was intended that the two projects would merge at the national level, where possible.

### **CARICOM Technical Working Group on Competitiveness**

The secretariat participated in the first meeting of the technical working group, and the CCST had been mandated to provide the technological components of proposals to be sent to the Ministerial Working Group, and then on for funding under Lome III. The process was part of the long-term programme focusing on competitiveness of Caribbean industries. The work of the CCST in this area was expected to receive a boost shortly with the recruitment of an officer to work on industry at the ECLAC Port of Spain office.

### **Diversification of the banana industry**

Funding for a workshop on banana diversification had been obtained from the UNDP Special Unit/Technical Cooperation among Developing Countries (SU/TCDC), and it would be held on 16-18 April 1997 in Saint Lucia. An important aspect of the workshop would be the representation of a cross-section of interest groups, in particular, the business sector. This was a manifestation of a thrust to ensure substantial impact of project activities at the national level. Participants expressed the view that the project was an extremely relevant and useful one.

### **Science teaching**

This project had been extended to include training in the use of the Internet as a tool and teaching medium in the teaching of science and mathematics. The Secretary reported that interest in locating funding had been expressed by representatives of the IDB, UNESCO and the OAS, and project activities could possibly start by the end of 1997. Following up from discussions at the fourteenth Plenary Session, funding for a round of consultations with relevant institutions in some

Caribbean countries had been obtained from UNESCO, and would be used to design activity related to the use of the Internet in teaching. An additional sum of approximately \$28,000 was available from UNDP TSS funds which could be used exclusively to develop project activities.

The representatives of Grenada, Saint Lucia and Trinidad and Tobago expressed their continued support for the project, in particular for the training of teachers in the use of, and in contributions of material available on the Internet. It was agreed that it would be necessary to work with UNESCO national offices to provide training for teachers at the national level.

Participants were informed that other relevant computer-based telecommunications networking activity in the region included the REDUCYT programme, and an Association of Caribbean States (ACS) proposal. The representative of Trinidad and Tobago reported that under the REDUCYT programme, the National Institute of Higher Education (Research, Science and Technology) (NIHERST) was working jointly with the Ministry of Education in providing Internet access to schools, research institutions and colleges. The representative of Grenada noted that technological capacity was the key hindrance for the smaller Caribbean countries and urged the CCST to secure benefits of any project activity for these countries. It was agreed that the representative of Trinidad and Tobago would be part of a small group to examine modalities for enhancing networking in the CCST member countries' educational institutions, as an extension of the teaching project.

### **Science popularization**

The representative of Saint Lucia informed that efforts by Grenada to host the Trinidad and Tobago interactive science exhibition, Yapollo, could be realized through funding from UNESCO national offices. This had been done by Saint Lucia.

Participants discussed the need for a permanent science centre as against incorporation of a centre within an existing institutional framework, with concerns being raised regarding visibility and accessibility by the public and the need to draw on experiences of existing institutions. The need to encourage creativity and innovativeness in the long term was emphasized. Also seen as important was the need to create infrastructure through which this creativity and innovativeness could be expressed. A possible framework for regional and national popularization activities identified was a Caribbean popularization network, such as the Latin American REDPOP, which could be coordinated by the CCST.

The presence of Mr. Samuel Cole, and Professor Lennox Borel, was recognized by the meeting. Both were involved with science popularization and teaching in the United States, and were seeking to extend their involvement to the Caribbean. In a statement to the meeting, Mr. Cole suggested that political support could only be created if there was demonstrated interest by the end-user of science popularization and teaching activities. As an example, if each student was required to pay a portion of the cost of providing him or her with a computer, matched by contributions from the private sector, he felt that government support would be forthcoming. He suggested that the overriding authority of the Ministry of Education in the Caribbean countries also provided an

opportunity to mobilize participation from the entire country, especially if this could be coupled with enthusiasm generation on the level of that created by popular music concerts.

Professor Borel's work suggested that traditional job training was no longer relevant in the United States, and more useful approaches would combine science and technology and entrepreneurship, as did his programme at his university. He emphasized partnerships with the private sector as an effective means of increasing the use of computers in schools.

Questions regarding the relevance of these approaches to the Caribbean related to the lack of a philanthropic tradition in the Caribbean, and differences between the organization of education administration between the two cultures. The Secretary suggested that successful partnerships required the governments to be joint partners in programmes with the private sector. Above all, he proposed that there was need to have a clear vision of the societies which such efforts aimed to create, and to make clear forecasts of human resource requirements to make this vision materialize. The existence of such partnerships in various districts in Jamaica was highlighted by the representative of Jamaica.

It was suggested that the CCST could work together with countries to identify common activities at the national level which could be funded through funds available from the National Commissions for UNESCO.

#### Agenda Item 2

##### Review of Proposal for meeting of ministries on integrated planning and new technologies for sustainable development

The Secretary suggested that opportunities for linking the proposal on integrated planning with other CCST activities included consideration of the deliberations and case studies presented at the water resources meeting, examination of the use of information technology as a tool for integrated planning, and combination with the ministerial meeting on science and technology. Good indications of funding had been received from the Perez Guerrera Fund of the TCDC Unit of the UNDP. The Secretary proposed that the venue be a country which had not been actively participating in CCST activities, such as Saint Vincent and the Grenadines. The proposed time-frame for the meeting was September 1997.

The Chairman noted the lack of inter-relation of discussions in major forums which had dealt with sustainable development-related issues in recent times. This was manifested by the fact that, in most cases, representation of any given country was different for each forum. This situation, he suggested, indicated confusion at the national institutional level, and required a mechanism to integrate disciplines to ensure integrated approaches. Two fundamental objectives of the workshop should be to stimulate and catalyze each member country to push in the direction of integrated approaches to representation in these forums, and to inform on mechanisms to facilitate efforts to integrate planning at the national level. He cautioned that it was necessary to examine work in

sustainable development in other forums such as the ACS, which was initiating activity in the areas of science and technology and human resource development. In order to maximize the benefits of the proposed activity, it was necessary to ensure that it was recognized as a watershed for efforts at integrated planning in the Caribbean. Focal points would play a key role in promoting the concepts and deliberations at the national level.

Increased integration of responsibilities at the national level in the case of Grenada was noted, where the National Council for Science and Technology's role in environment, science and technology and human resource development was increasingly being recognized by both government and the public.

It was suggested that the deliberation should suggest comprehensive management approaches to integrated planning. The Committee agreed that the project should be promoted at the highest levels of government to ensure its impact in the long term.

### Agenda Item 3

#### Science and technology issues relative to the visit of President Clinton

The meeting agreed that a short paragraph for inclusion by the Prime Minister of Grenada, H.E. Dr. Keith Mitchell, in his statement at the United States-CARICOM meeting should be prepared. The approach taken would focus on institutional capacity and human resource development, and identify benefits to both parties. The paragraph sent to Prime Minister Mitchell via Minister of Foreign Affairs, Grenada, Honourable Dr. Ralph Fletcher, is given at Annex 2. The Secretary noted that a number of American institutions had contributed to Caribbean human resource development in the past and he urged re-institutionalization of such training programmes as had been offered by the National Science Foundation, Land Grant institutions, and several universities.

The Chairman noted that this again raised the need for a memorandum of understanding to be signed between CARICOM and the CCST.

### Agenda Item 4

#### Review of draft report of consultant on science and technology organizations in the Caribbean

The Secretary justified the study in terms of the renewed activity of some member States in establishing institutions for promotion of science and technology at the national level. The extensive report provided by the consultant, Dr. Gladstone Taylor, would serve to inform these initiatives. He requested focal points to indicate any factual errors found in the report. The representative of Grenada identified assistance to countries seeking to establish such institutions as an important area of follow-up to the report. Key findings of the report were briefly highlighted by the Chairman and the Secretary, and included the significance of the name given to the Council relative to its impact on public perception, hindrances in the form of institutional conflict, and the need for human resource development. One of the recommendations regarding the CCST was that its role be expanded to fill the traditional role of Councils in the funding of science and technology. It was agreed that these



recommendations be addressed by the Council, and responses communicated directly to those making them. In addition, the findings of the report should inform the impending revision of the science and technology policy regarding organizational structures, policies and strategies for implementation. These should be considered in terms of actions necessary to meet both long- and short-term development needs.

The report was accepted by the Committee, subject to editing by the secretariat. Each country was requested to communicate its responses to the secretariat, particularly regarding implications for the CCST.

Other comments regarding the subject matter of the report included :

- Inter-institutional conflict and duplication of responsibilities that required special mechanisms to increase efficiency at the national level. However, often, because of lack of recognition of the role of science and technology by relevant personnel, such mechanisms did not work.
- One possible solution to the human resource deficiency included secondment of experts to several divisions as a way to justify expenditure for limited service in one institution. The Council could serve to match skills with needs in the various institutions.
- While there was need for such institutions to coordinate or inform on activities across several ministries as is done in Cuba, there was a danger of the perception that it was more powerful than the ministries, which would hamper the acceptability of the Council's role to the political directorate.
- The Westminster model of Government was not conducive to the type of integration of activities necessary for sustainable development, and that some mechanisms must be found to foster inter-ministerial collaboration and coordination.
- One possible way to ensure continuity of the work in these institutions was to ensure the establishment of set work programmes.
- The policy, research and planning functions needed to be recognized and enhanced at the national level, where implementation of policies and plans, and utilization of research could be delegated as appropriate.
- While integration of science and technology in several sectors was seen as necessary, the suggested Council names had been limited to include only one or two sectors. It was noted that this may require some rethinking.

Agenda Item 5

Follow-up on discussions with the Prime Minister of Grenada, Hon. Keith Mitchell, regarding the promotion of science and technology in the Caribbean, and the role of the CCST

and

Agenda Item 6

Review of proposal for revision of regional science and technology policy in conjunction with the time-frame of CARICOM

It was decided that Agenda items 5 and 6 would be considered jointly. The Secretary indicated that the revision of the policy was being considered in the light of regional and international initiatives and the mandate of the Prime Minister of Grenada, as Minister responsible for Science and Technology for CARICOM. He urged the meeting to consider the possible utility of identifying specific inter-institutional collaboration modalities to be implemented via a plan of action. It was agreed that there was need to avoid creating a whole new policy, and focus on revision of the existing policy. In addition, the policy, and process identified, should clearly link regional and national institutions, and focus on impacts at the national level.

Regarding action to be taken to provide Prime Minister Mitchell with a report to the Interim meeting of the CARICOM Heads of Government in July, it was agreed that :

- The report of the Prime Minister should include a credible status report on plans and progress towards revising the policy; a strong input into the human resource development issues to be discussed; an identification of the issues which the revised policy would address; and the approach which the policy would take. The representatives of Grenada proposed that the report of the Prime Minister build on progress and issues highlighted in an Interim Report of the Eighth Intersessional Meeting of the CARICOM Conference of Heads of Government, held on 20-21 February 1997, prepared by the Ministry of Foreign Affairs.

- The Government of Grenada was undertaking a national consultation in May, based on activities which generated income for Grenadians. It was hoped that other countries would undertake similar consultations which would inform the revision of the policy, while providing a preliminary identification of primary needs.

- Specific recommendations to inform a CARICOM consultation on human resource development to be held in July should be identified, since the two issues were linked and the Prime Minister also had responsibility for human resource development at the CARICOM level.

- The existing policy should be sent out for the comments of relevant organizations and individuals.

- A small team of experts should be identified immediately to work on the report for the Prime Minister and on identification of issues for revision of the policy. It was agreed that the CCST secretariat would coordinate the activities of the group, the composition of which would be based on the submissions of Executive Members, and would include Dr. Winston Suite of the University of the West Indies (UWI).

- The proposed CCST workshop on determination of priorities was anticipated to receive funding shortly. If implemented it would further the identification of priorities both at the national and regional levels and help in the implementation of the revised policy.

Regarding the longer-term process of revising the policy, comments and suggestions included:

- While the function of a proposed multi-disciplinary grouping of eminent persons which would meet periodically to advise on science and technology issues was primarily to provide a focus for the attention of the key players of the region, concerns were raised regarding the resource needs, and the danger of creating a body which would become self-perpetuating. It was suggested that such a group be part of the recommendations of the policy revision process.

- The policy should attempt to declare specific targets in specific areas, for example, in vocational training, disaster preparedness, etc.

- Specific issues should be dealt with by small think-tanks, which would analyze the needs and institutions, and prioritize issues.

- The policy should identify ways of enhancing inter-institutional collaboration.

- As specific issues, the policy should address - health and disease, the provision of potable water, waste and pollution, losses to the agricultural community due to natural disaster and training of subprofessionals, and the relationships between technology, employment and productivity.

- There was need to clearly identify relevant documentation consisting of action plans and programmes formulated and accepted at the international regional levels, which identified priority action and strategies for implementation. These should partly form the basis for a policy which addressed science and technology-development needs in an integrated manner.

Agenda Item 7  
Any Other Business

### **CCST Secretariat**

The secretary indicated that the report on institutional arrangements for promotion of science and technology held implications for the CCST, and its secretariat. He reiterated that the CCST was not sustainable in its present form. The representative of the United States Virgin Islands requested that a specific proposal be tabled for the consideration of the CCST membership. It was suggested that the generation of finances was a key point to be addressed by such a proposal. This was supported by the representatives of Grenada and Jamaica.

### **Project proposals from Cuba**

The representative of Cuba informed the meeting on a methodology for science and technology project evaluation and selection which formed the basis for a system of anonymous evaluation of science and technology projects nationally. Under a project proposal submitted to the ACS, training in this methodology would be offered to other countries.

One other project proposal related to the establishment of a network of research and development institutions. While support for these projects through such institutions as the OAS was not open to Cuba, it was suggested that increased networking would be possible through the Latin American Economic System (SELA) and the Latin American Commission of Science and Technology (COLCYT). The Secretary pointed out that such activity would require a major commitment from networking nodes at the national level, due to the high cost of dissemination of information and communication. He suggested that there was need to establish a specific fund for this type of activity.

The representative of CARICOM noted that other avenues for cooperation between Cuba and English speaking States included education in science. It was agreed that this would be considered when the resource persons for the science teaching project were being identified.

### **Flagship Technology Programme**

The Secretary informed that Dr. Joseph Ben Dak of UNDP, who had had a long-standing relationship with the secretariat, and had facilitated much of the CCST's work, would be leaving the UNDP shortly. As Director of the Flagship Technology Programme which had operated under the UNDP, but which was independent to some extent, he was considering moving part of the operations of the Programme to the CCST secretariat. This move was welcomed, given the strong link the Programme sought to make with the private sector.

**Science and technology management issues - Request from Commonwealth Science Council**

The representative of Trinidad and Tobago drew to the attention of the meeting, a request for identification of priority areas of science and technology management by the Commonwealth Science Council. Member countries were requested to send copies of their responses to the secretariat, so that regional priorities could be identified.

**Priority setting in science and technology**

The representative of Trinidad and Tobago informed on the activities of Dr. Thomas Carr, who would be undertaking a series of visits to various countries with a view to applying a methodology for priority setting of science and technology activity. This methodology had been applied by institutions locally, including the Caribbean Agriculture Development and Research Institute (CARDI), and had been well received. Increased attention to follow-up action on finalizing Dr. Carr's schedule to other Caribbean countries was requested.

**Productivity enhancement through engineering and design**

The representative of Trinidad and Tobago referred to plans for establishment of one regional centre, and two national centres globally for productivity enhancement through engineering and design. The agency initiating this project, the Commonwealth Science Council (CSC), had expressed frustration with the poor response from the Caribbean to a request for indications of interest. The meeting agreed that the poor response indicated confusion and lack of understanding of the issues at the national level.

**Venue and date of the fifteenth Plenary Session**

Suggested venues for the next plenary session, to be held in the last quarter of 1997, were Belize, Haiti and Suriname.

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ANNEX I

20th Executive Committee of the CCST  
List of Participants  
7-8 April 1997

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Hitomi Rankine  
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Paul J. Peters  
Secretary

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## ANNEX II

### *SUGGESTED PARAGRAPHS FOR DECLARATION FROM CARIBBEAN-USA SUMMIT*

Recognizing the critical importance of science and technology to the development process, generally and to the enhancement of competitiveness, the creation of employment and the protection of the environment and also the potential which exists for collaboration between the Caribbean and the USA, the Heads of State and Government agreed to encourage their institutions involved in science and technology to develop and implement collaborative programmes. To this end, and taking into consideration the different capacities, capabilities and the needs that exist in the region and bearing in mind the urgency of some of the challenges confronting the Caribbean economies the following areas were identified as areas of mutual interest in which specific programmes could be developed through collaborative actions between institutions in the USA and the Caribbean:

- Biotechnology
- Human resource development, with specific emphasis on science education
- Renewable energy
- Information technology
- Sustainable management of natural resources
- Ocean sciences

The Heads of State and Government recall previous collaborative programmes involving institutions such as the National Science Foundation, the Land Grant Colleges and the National Oceanographic and Atmospheric Agency and in that context maintain that the broadening or refocussing of the mandates of these types of institutions would provide the concrete basis for the types of joint activities under contemplation.

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