

THE CARIBBEAN REGION

Distr.
GENERAL

LC/CAR/G.122(SEM.4/11)
CDCC/CCST/84/12

30 October 1984

ORIGINAL: ENGLISH

ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN
Subregional Headquarters for the Caribbean

CARIBBEAN DEVELOPMENT AND CO-OPERATION COMMITTEE

CARIBBEAN COUNCIL FOR SCIENCE AND TECHNOLOGY

Fourth Plenary Session
St. John's, Antigua
17-19 September, 1984



MINUTES OF THE FOURTH PLENARY SESSION
OF THE
CARIBBEAN COUNCIL FOR SCIENCE AND TECHNOLOGY



UNITED NATIONS

ECONOMIC COMMISSION FOR LATIN AMERICA AND THE CARIBBEAN
Subregional Headquarters for the Caribbean

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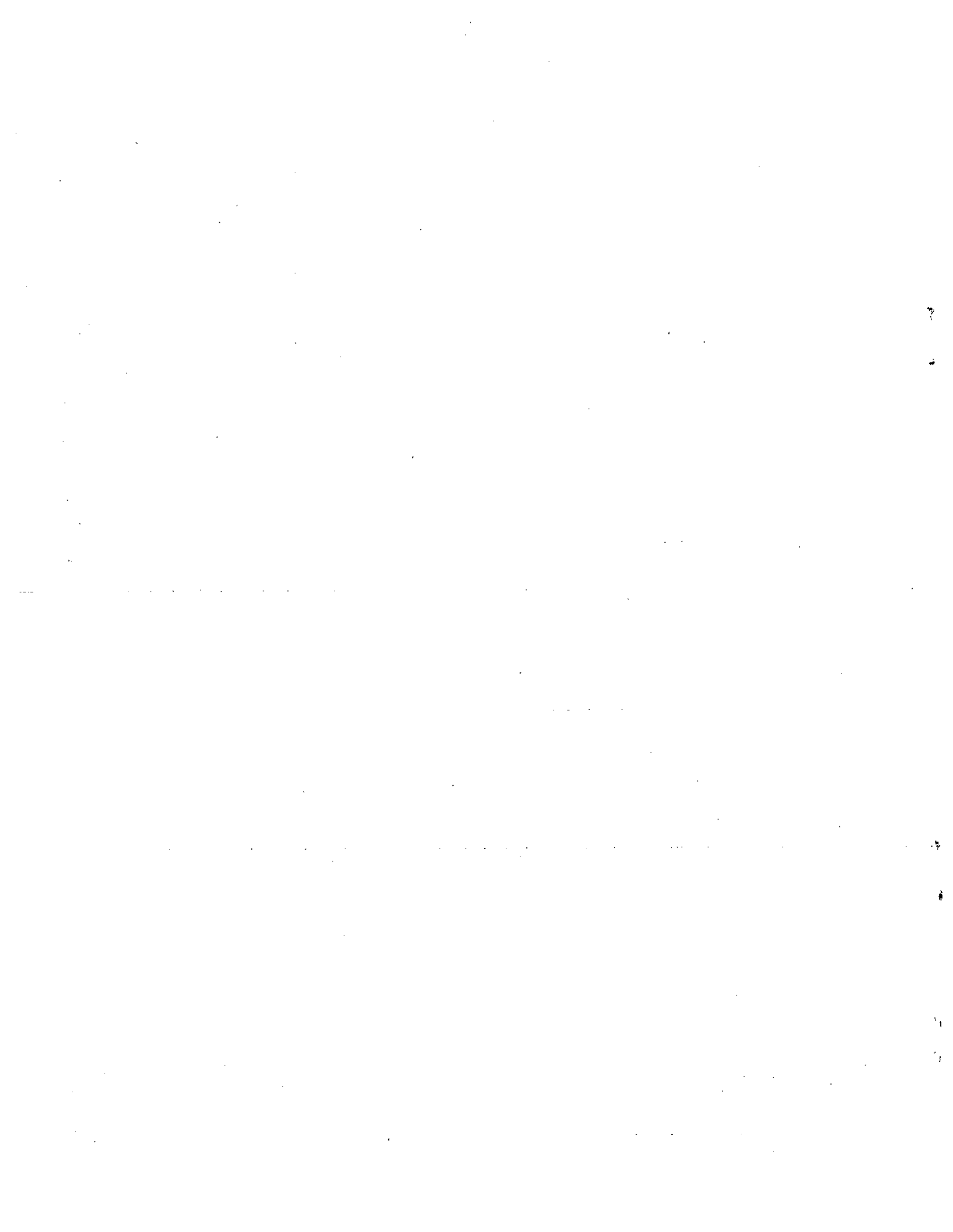
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MINUTES OF THE FOURTH PLENARY SESSION
OF THE
CARIBBEAN COUNCIL FOR SCIENCE AND TECHNOLOGY
ST. JOHN'S, ANTIGUA
17-19 September 1984

I. ORGANIZATION OF THE MEETING

1. The Fourth Plenary Session of the Caribbean Council for Science and Technology (CCST) was convened in St. John's, Antigua, from 17-19 September 1984 in conformity with Article 19 of the Statutes. The meeting was hosted by the Government of Antigua and Barbuda in collaboration with the Economic Commission for Latin America and the Caribbean (ECLAC).

Opening Session

2. The meeting, which was declared open by the Honourable Reuben Harris, Minister of Education, Culture and Youth Affairs^{1/}, was also addressed by the Secretary for the Meeting and the Chairman of the CCST.

Attendance^{2/}

3. Representatives from the following CCST member countries were present: Dominica, Grenada, Guyana, Haiti, Jamaica and Saint Lucia.

4. The following Caribbean Development and Co-operation Committee (CDCC) members and associate members were also present as observers: Antigua and Barbuda, Montserrat, the Netherlands Antilles and Saint Christopher/Nevis.

5. The following institutions and organizations with interest in science and technology activities also attended as observers: the Caribbean Community (CARICOM) Secretariat, the Organisation of Eastern Caribbean States (OECS), the University of the West Indies (UWI), the Caribbean Development Bank (CDB), the Caribbean Association of Industry and Commerce (CAIC), the United Nations Development Programme (UNDP) and the Inter-American Development Bank (IDB).

6. The United Nations ECLAC Subregional Headquarters for the Caribbean, which serves as the Secretariat for the CCST, provided secretariat services for the session.

^{1/} The Honourable Minister's address is given in Annex I.

^{2/} The List of Participants is given in Annex II.

II. SUBSTANTIVE DISCUSSIONS

Adoption of the Agenda^{3/}

(Agenda Item 1)

7. The Agenda proposed in document No. CDCC/CCST/84/5 was formally adopted.

Report of the Third Plenary Session

(Agenda Item 2)

8. The report of the Third Plenary Session, which had previously been circulated to all member countries, was formally adopted.

Matters Arising

(Agenda Item 3)

9. The meeting reaffirmed the decision that the CCST should have its own logo and, bearing in mind that prior efforts to do so had been unsuccessful, requested the Secretariat to invite submissions on a regional basis, perhaps by means of a regional competition.

10. It was decided that as far as practicable, named CCST representatives should be sent copies of all correspondence to their Governments relating to CCST matters especially those concerning annual contributions.

11. The representative of CARICOM informed the meeting that CARICOM would bring to the attention of the Standing Committee of CARICOM Ministers with responsibility for Science and Technology, any decisions or recommendations of CCST considered to have significant implications for CARICOM member countries.

Chairman's Report for 1983-1984

(Agenda Item 4)

12. The Chairman formally introduce his report^{4/} and commented on the

^{3/} The Agenda is given in Annex III.

^{4/} The Chairman's Report is given in Annex IV.

main activities during his term of office. He suggested that CCST explore the feasibility of appointing an Executive Secretary for a minimum period of two years, to be stationed within ECLAC, Port-of-Spain, and financed by CCST. He also invited other suggestions to ensure continuity in the servicing of CCST. Other options discussed were that countries could provide in rotation:

- (i) the services of an Executive Secretary, to be stationed within the ECLAC Subregional Headquarters for the Caribbean, and,
- (ii) the complete Secretariat.

The Chairman also informed the meeting of the decision of the Government of Antigua and Barbuda to become a member of CCST and that that Government would shortly deposit the necessary Instrument of Ratification in accordance with the CCST Statutes.

Annual Report and Balance Sheet for 1983-1984
(Document No. CDCC/CCST/84/9)

(Agenda Item 5)

13. The Meeting noted the progress made in the previous year in spite of difficulties which the Secretariat had encountered in fulfilling its responsibilities and which are highlighted in the Chairman's report.

14. The Meeting also noted that most of the activities contained in the report are items to be followed up in the context of the 1984-85 Work Programme. Pertinent recommendations made are therefore contained in the report on that agenda item.

15. The Secretariat was not in a position to submit a Balance Sheet in accordance with a format approved by the Treasurer since this had not been received up to the time of this meeting. A Balance Sheet^{5/}, however, was presented to the Executive Committee at its meeting on 16 September. The Executive Committee, at that meeting, stipulated the format which is to be followed in the future.

16. With regard to the considerable amount of outstanding dues by

^{5/} The Balance Sheet is given in Annex V.

member countries to the CCST, representatives were asked to urge their governments to rectify this matter.

Membership of the Netherlands Antilles

(Agenda Item 6)

17. The Secretary presented the document CDCC/CCST/84/8 which contains a detailed history of this matter and stressed the fact that previous legal advice received on this topic was based on the erroneous premise that CCST was a subsidiary body of some other entity.

18. The Meeting reaffirmed the status of CCST as that of an autonomous intergovernmental organization, and therefore not necessarily subject to the rules or practices of any other organization, regardless of the location of its interim Secretariat.

19. The motion "Be it resolved that the Netherlands Antilles, being an Associate Member of the CDCC is eligible for the status of full member of the CCST", was proposed by Guyana, seconded by Jamaica and unanimously agreed to by the Meeting.

20. The representative of the Netherlands Antilles, present as an observer, gave a brief statement to the meeting.^{6/} She expressed sincere gratitude to the Secretariat and especially the Executive Committee for including this topic as a specific item on the agenda and thanked the Plenary Session for resolving this long-standing issue. On behalf of the Government of the Netherlands Antilles, she reaffirmed her country's commitment to the CCST, and to the continued consolidation of relations with all countries of the Caribbean.

21. The Secretariat advised the delegate of the Netherlands Antilles that her country would actually become a full member of CCST once the Secretariat had received the Instrument of Ratification from her government.

22. A copy of the Statutes and a draft Instrument of Ratification were given to the delegate for transmission to her government.

^{6/} The statement of the representative of the Netherlands Antilles is given in Annex VI.

Draft Science and Technology Policy and Plan
for the Caribbean
(Document No. CDCC/COST/4CRP.84/1)

(Agenda Item 7)

23. The Meeting was informed that this initial draft of a Draft Science and Technology Policy and Plan for the Caribbean was a result of the efforts of a Working Group established by the CARICOM Ministerial Sub-committee for Science and Technology. This working group consisted of Dr. Winthrop Wiltshire (co-ordinator) - CCST, Dr. Dennis Irvine - UNESCO, and Dr. Jeffrey Bellimore - CDB.
24. The Meeting considered that this was an important initiative and expressed appreciation to CARICOM for this manifestation of collaboration with CCST and there was considerable comment on the draft document. One delegate expressed the view that a policy document needed to be very prescriptive and for this reason the initial draft was not adequate while another view was that a policy statement should provide general guidelines within which appropriate action should be formulated.
25. The representatives of CARICOM thanked the drafting committee for the initial draft and confirmed that inputs received from these deliberations would be considered, along with comments received from its wider circulation.
26. The Meeting was informed that comments on the draft document should be submitted to CARICOM for incorporation into a draft policy document to be presented for the consideration of the next meeting of CARICOM Ministers for Science and Technology scheduled for November 1984. A summary of comments follows:
- (i) In relation to human resource development, more emphasis should be placed on the development of adequate numbers of trained middle-level technicians;
 - (ii) The importance of technical standards and metrology should be included;
 - (iii) Mechanisms for the identification and utilization of technical innovations that occur on the shop floor should be promoted in the interest of fostering technical change in all Caribbean countries;

- (iv) In terms of the structure of the draft, it was found appropriate that the following paragraphs be grouped together - 3.1, 3.2, 3.3, 3.4 and 3.7 as one set; 3.6, 3.8, 3.9 as another; with 3.5 being separate;
- (v) The link between Science and Technology on the one hand and economic growth on the other, should be more strongly emphasized as well as the role of Science and Technology policy in facilitating the optimal application of Science and Technology in the development process of Caribbean countries;
- (vi) The need to develop Science and Technology capability should be given prominence early in the document;
- (vii) With respect to paragraph 6.8, an elaboration of the objectives and functions of the Caribbean Technological Consultancy Services (CTCS) Network was desirable;
- (viii) The importance of Science and Technology from the level of primary education should be included in the document;
- (ix) With respect to paragraph 6.7, aqua-culture should be included;
- (x) In view of the importance of agriculture in the region, the teaching of agricultural sciences in schools should not be overlooked in such a document;
- (xi) The importance of applying Science and Technology to the productive sectors should be stressed, and a link made between the policy document and the CARICOM industrial programming (CIP);
- (xii) The plan should not only focus on critical issues but should also identify priority areas which required immediate action.

Science and Technology Workshops/Meetings
planned by the CCST for the next quarter

(Agenda Item 8)

27. The meeting was informed that, although this topic was covered in the Work-Programme for 1984-85, it had been made a separate agenda item to emphasize to participants the importance of these activities in the hope that they would stimulate appropriate action in their respective countries to ensure that their governments were adequately represented.

28. Recommendations on this activity are incorporated in the report on the Work Programme for 1984-85.

Work Programme and Budget for 1984-85
(Document No. CDCC/CCST/84/9)

(Agenda Item 9)

29. The Work Programme for 1984-85 was introduced by the Secretariat, modifications were made and recommendations for the implementation of the Work Programme were adopted. A synopsis of these modifications and recommendations are given below, and will be incorporated into the revised Work Programme.^{7/}

30. With respect to the assessment of National Science and Technology Capabilities, the meeting decided that instead of the planned workshop, the assessment should continue along revised lines. A review of the format was made by a sub-committee appointed by the Fourth Plenary Session since it was felt that this questionnaire was unnecessarily complex.

31. It was decided that the revised questionnaire should be formulated to solicit specific information on:

(a) Institutions -

- (i) Areas of concentration/expertise;
- (ii) Facilities, including specialised equipment;
- (iii) Human resources and their levels of training;

(b) Human Resources -

- (i) Basic qualifications;
- (ii) Experience;
- (iii) Specialised training.

The result of the exercise should be a directory of Science and Technology institutions, personnel, skills and institutional capabilities. The Secretariat agreed to undertake the recommended modifications and to pursue the exercise as outlined.

32. The Session decided that at this time a Science and Technology Journal/Magazine for the Caribbean was too ambitious an undertaking in view of the limited resources available. It considered, however, that some type of publication was necessary, and decided that a newsletter should be published and should include information on the work of the

^{7/} The revised Work Programme appears in Annex VII.

CCST and related information in the region. Jamaica reaffirmed its responsibility for publication and the Secretariat agreed to provide translation into the languages of CCST member countries.

33. The Meeting approved the activity proposed for the continuation of the project on the preparation and exchange of audio-visual material, and considered that, with respect to the postponed workshop on Science Writing and Communication, the Secretariat should actively seek extra-budgetary funding. Countries were requested to submit to the Secretariat information on the specific film format most suitable to their country's requirements to enable dissemination of the films.

34. The importance of the area of newly-emerging technologies was re-emphasized. The report on implications of New Technologies for Caribbean Development was commended and the meeting expressed similar sentiments to those contained in the report that, in relation to the purchase of computer hardware and software, many inappropriate decisions and costly errors were being made throughout the region. It was felt that the participants at the proposed workshop on this topic should include not only technical personnel but also appropriate high-level public and private sector officials.

35. The Meeting, on being informed of the UNESCO initiative for the promotion of a Caribbean Science and Technical Information Network (CARSTIN), cautioned that every attempt should be made to co-ordinate it with other related regional initiatives such as the existing systems being operated by CAIC, CARDI, CDB and ECLAC.

36. The scope and objectives of the proposed CCST workshop on Micro-computers as outlined in the Work Programme^{8/} should be more precisely defined to relate to the use of micro-computers in the office environment.

37. The workshop on the Pharmaceutical Sector in the Caribbean to be held in Cuba from 22-25 October was identified as being very important and it was pointed out that the meeting of the CCST Technical Committee on Health, Nutrition and Pharmaceuticals, the first meeting of any of the established specialized committees, will immediately follow this workshop.

^{8/} See Annex VII.

38. The Plenary Session agreed that the pre-CASTALAC II consultation being jointly organized by CCST and UNESCO and scheduled to take place in Port-of-Spain from 5-7 November would be useful in formulating a Caribbean regional position for CASTALAC II scheduled for April 1985 in Brazil.

Election of Officers

(Agenda Item 10)

39. The following officers were elected for 1984-85:

Chairman:	Saint Lucia	-	Mr. Angus Philogene
Vice-chairman:	Haiti	-	Mr. Gilbert Duperval
Member:	Guyana	-	Dr. Ulric Trotz

Dr. Iwan Kortram, Suriname, retains the post of Honorary Treasurer, to complete the final year of his three year term in accordance with the Statutes.

Any Other Business

(Agenda Item 11)

40. The CAIC representative took the opportunity to draw to the attention of the meeting its proposed conference on opportunities and challenges for the development of electronics and data processing industries in the Caribbean to take place in Barbados, 26-27 October 1984, and presented related information which is contained in CDCC/CCST/CRP.84/3.

41. The Meeting noted that several Caribbean countries including Montserrat and Barbados, had incorporated the development of micro-electronics-based industries into their development plans. The Meeting endorsed the CAIC initiative and agreed that applications of micro-electronics and the development of micro-electronic-based industries was an important area to be examined by Caribbean countries.

III. CONSIDERATION OF THE DRAFT REPORT AND RECOMMENDATIONS

(Agenda Item 12)

42. The Meeting considered the draft Report and recommended certain amendments which have been incorporated into this report.

43. The Jamaican delegation paid tribute to the Council for its efforts at collaboration over the three years of its existence, the effects of which were seen at this Meeting.

44. The Secretary to the Meeting expressed his appreciation to the outgoing Chairman for the support received from him during his term of office, and informed the Council that most of the work leading up to the Plenary Session had been handled by the Research Assistant for Science and Technology; the Council commended Ms. David for her role in making the Meeting a success.

45. The new Chairman expressed his gratitude to the Government of Antigua and Barbuda for hosting the Meeting and pledged to continue the good work of his predecessors.

46. There being no further business the Meeting was declared closed.

OPENING ADDRESS BY THE HON. REUBEN HARRIS,
MINISTER OF EDUCATION, CULTURE AND YOUTH AFFAIRS

Mr. Chairman, Representatives of participating countries and agencies,
Ladies and Gentlemen,

As I recall, it was less than six months ago that I had the privilege of welcoming at this very location, another team of officials, specialists and decision-makers who had assembled here for a conference concerning the development of science and technology in our region - let me say instead, a conference for the application of science and technology to the development of our region. That was the first meeting of a Regional Ministerial Sub-committee on science and technology, in which I was very pleased to participate.

Reflecting on the issues raised in that meeting, and on some local and international developments in the intervening period, I find that I am even more convinced about the magnitude of the problems we face in our efforts for development, but I am equally convinced of the soundness of the ideas so far advanced or the decisions we have taken. I remember, for instance, emphasizing the importance of increasing our capabilities in scientific and technological research and applications, to modernise and improve the efficiency of production. My observation that our national resources were limited, and that scientific innovation was relatively costly at least in the initial stages, brought forth a spirited response from your Secretary, Dr. Wiltshire. Dr. Wiltshire hastened to mention that although the costs of scientific and technological development were high, the costs of not providing for such development were even higher. Mr. Chairman, I fully concur with that assessment, and it is with this awareness that my Government has pledged its unqualified support for, and full participation in the activities of the Caribbean Council for Science and Technology.

The reference I have just made to the cost of innovation indicates one example of the dilemmas that confront nations such as ours. We cannot increase production or introduce innovations, unless we make certain

capital investments; but we cannot make increased capital investments unless we acquire wealth that comes from increased production. I think we can be assisted in escaping from this dilemma by the intervention of international and bilateral agencies, and that is why I am pleased to see that such agencies are represented at this meeting, and that they have a day set aside at the end of the conference for formulating their own plans for technical and other assistance.

There is another problem, Mr. Chairman, of which I have become deeply and painfully conscious in the discharge of my various portfolios of government. The planning and preparation for development and change, the many rounds of deliberations and negotiations, impose a very heavy burden not only on Ministers of Government, but on hardworking officials, and our labours are not always rewarded. We must, like Hercules, go through many severe trials of strength, courage and endurance, and perform seemingly impossible tasks before we can reach our goal. Even this analogy with the trials of Hercules appears, on occasion, to be inappropriate, because Hercules was eventually rewarded for his labours, being cured of his madness and gaining immortality. Sometimes it seems as though we in the developing world are condemned to the fate of the mythical Sisyphus, and must forever engage in a futile struggle for progress. I am often tempted to compare the huge rock that Sisyphus had to take to the top of the hill with the seminars or conferences that we conduct, often breaking no new ground, but traversing the same territory in an endless quest for success.

I should let you know at once that a look at your agenda momentarily relieves me of this pessimism. I am happy to note, for instance, that the meeting of the ministerial sub-committee requested the secretariat of your organisation to co-ordinate the drafting of a science and technology plan for the Caribbean, and that you do indeed have such a draft ready for discussion. For this, my colleagues should be truly grateful, because without a coherent plan, we shall be merely running around in circles. I note too, that your proposed work programme for the next quarter includes a workshop on "Science Writing and Communication". Assuming that I have correctly speculated on some of the objectives of such a workshop, this

is an effort that should receive generous praise and support, because it will surely help us to deal with another problem that we face - the problem of social attitudes towards the value and development of science and technology. It is on this matter that I wish to make a final brief observation.

We who have the responsibility for initiating or implementing change, are constantly reminded by force of circumstance, that the process of planned change does not constitute merely the acquisition of relevant knowledge, or mastery of appropriate techniques. Let us take a simple example of the development and application of an alternative energy technology which exploits the natural resource of wood for the production of charcoal fuel for domestic use. The successful execution of such a project depends on many factors. Of course, the specialists have to perfect certain devices which guarantee a reliable, and efficient and convenient supply of the necessary materials. But this is not enough. To pass into popular acceptance and use, other conditions have to be fulfilled, including the willingness on the part of the target population to change their habits and expectations, the creation of opportunities for entrepreneurship to commercialise the particular product, and the actual utilisation of these opportunities.

There is a feeling among some leaders of opinion in this country, and perhaps throughout the region, that these latter attitudinal conditions of change are as important as the mastery of new appropriate technologies, and sometimes prove more difficult to achieve. The debate then arises, what are the reasons for this difficulty, and what solutions are feasible? Some argue that we must change popular tastes and lifestyles. Others contend that this approach is doomed to failure, and suggest instead that the technologies developed must in some way come to terms with and satisfy existing taste and expectations, otherwise the technology could not be considered appropriate; the explanation is that there is as much a social and psychological reality at any stage of our existence, as there is a physical and economical reality, and all these various aspects of reality provide a measure for the suitability of any innovation. I do not seek to provide an answer to these problems; I

merely wish to note their existence and to express the hope that they will be taken into account in your deliberations. Though I may have appeared to speak in general terms, be assured that my remarks are prompted by real and worrisome experience.

There is another important aspect of the problem of attitudes to science and technology that relates to the question of educational choice and performance. Our school system does not yet seem to have adapted to the demands of our rapidly changing technological culture - there is still a dread of subjects such as science and mathematics, a reluctance among our ablest students to pursue technological options, and unsatisfactory levels of achievement in these areas. Perhaps your attention to the matter of scientific writing and communication may prove beneficial in helping to correct these conditions.

Mr. Chairman, I know you would not wish me to detain your meeting unduly. I have, on this occasion, chosen not to detail for my listeners the efforts being made by my government in its efforts to increase our scientific and technological capabilities. Be assured that our commitment to this objective is unquestionable. With our limited resources and some help from our friends, for which we are thankful, we have made some small but important beginnings, and look forward to significant achievements in the not too distant future, partly as a result of your work.

It remains only for me to endorse the welcome already extended to you. I trust you will enjoy what Antigua has to offer, not excluding the results of our recent rainfalls, which were mainly attributable to the mercy of the Almighty; but this mercy we hope to supplement and fully utilise in the future through the application of science and technology. Again, let me welcome you, express a sincere wish for the success of your meeting, and with great pleasure declare your conference open.

Thank you.

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Mr. Winthrop W. Wiltshire
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Ms. Christine David
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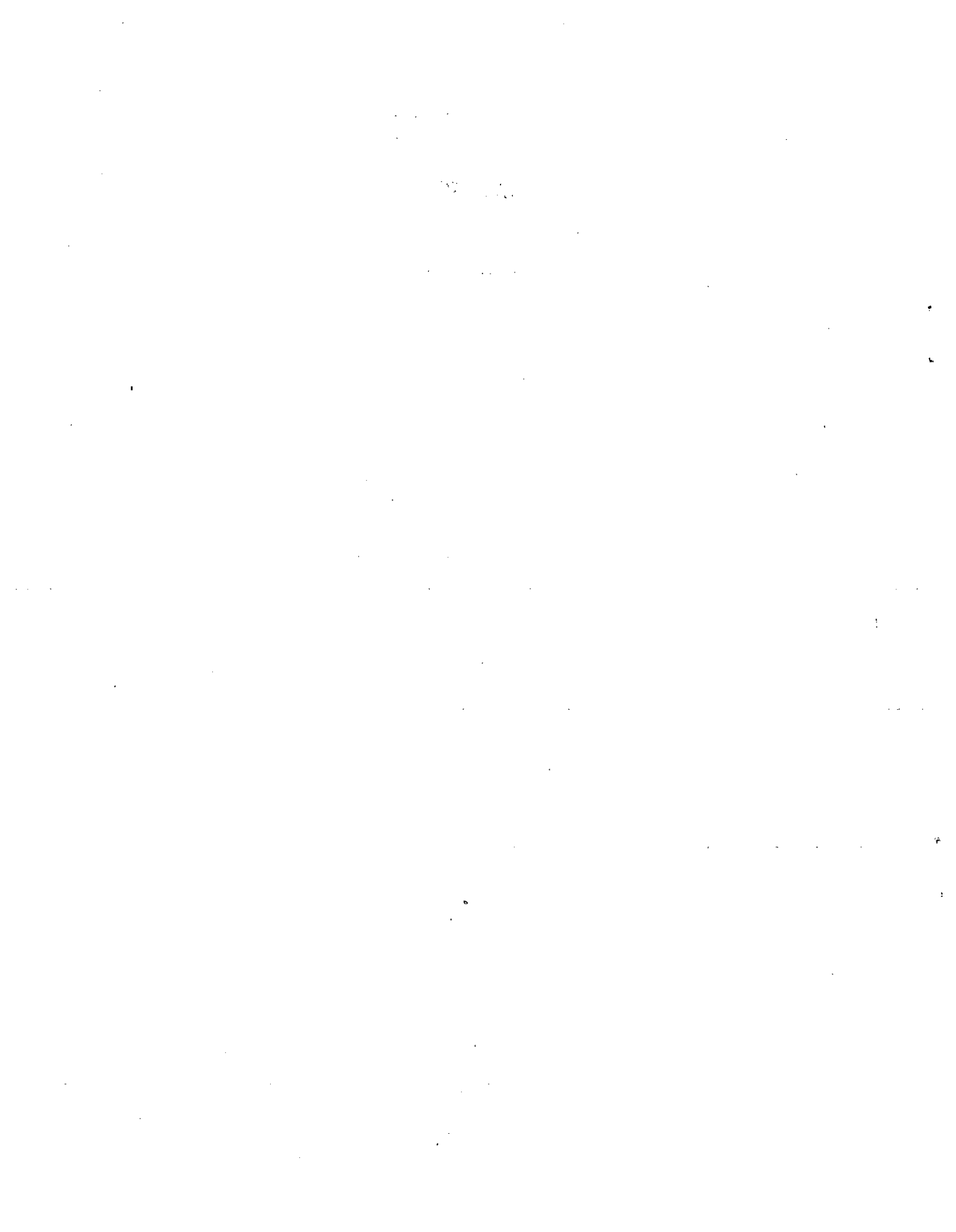
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PROVISIONAL AGENDA

1. Adoption of the Agenda
2. Report of the Third Plenary Session
3. Matters arising
4. Chairman's Report for 1983-1984
5. Annual Report and Balance Sheet for 1983-1984
6. Membership of the Netherlands Antilles to the CCST
7. Draft Science and Technology Policy and Plan for the Caribbean
8. Science and Technology Workshops/Meetings planned by the CCST for the next quarter
9. Work Programme and Budget for 1984-1985
10. Election of Officers
11. Any Other Business
12. Consideration of the Draft Report and Recommendations



CHAIRMAN'S REPORT 1983-84

The last year saw the steady consolidation of CCST which, after three years of existence, is continuing to strive to develop and strengthen mechanisms to fulfill its major objective of enhancing collaboration among Caribbean countries in Science and Technology.

I am pleased to report that, although the membership of the Council has not formally changed from the 1983 total of eleven countries, the CDCC Secretariat which provides interim Secretariat services for CCST has been recently informed by the government of Antigua and Barbuda of its decision to become a member of CCST. (The formalities of depositing the necessary Instruments of Ratification of the CCST Statutes are still awaited).

The Dominican Republic has also demonstrated interest in becoming a member of CCST and it is to be hoped that by the end of this Fourth Plenary Session, the issue of the eligibility of the Netherlands Antilles for full membership would have been unequivocally resolved.

The CCST was not unaffected by the political upheavals in the region in October 1983; as a result of which it was not possible to convene an Executive Committee Meeting before mid-March 1984. To compound this difficulty, the interim Secretariat has not been able to fill the post of Executive Secretary on a continuous basis following the departure of the last incumbent who served the Third Plenary Session in Surinam. I believe that it is appropriate for this body to consider whether it is not timely for CCST to evaluate the feasibility of establishing its own Secretariat.

One major development, however, has been the deepening of collaboration between CCST and CARICOM. It will be recalled that the First Meeting of CARICOM Ministers responsible for Science and Technology took place in April 1983. The corresponding Ministerial Sub-committee held its first meeting in May of this year at the identical venue. The CCST representative who attended that meeting was requested by the sub-committee Chairman, Dr. Ronald Irvine of Jamaica to co-ordinate the formulation of

the first draft of a Science and Technology Policy and Plan for the Caribbean. The CCST representative worked with the two other members of the drafting team, Dr. Dennis Irvine, the Regional Science Advisor for UNESCO, and Dr. Jeffrey Dellimore, Manager of the Technology and Energy Unit of the Caribbean Development Bank. The result is a document which will be presented for your consideration and comment later in this Plenary Session.

The CCST wishes to place on record its appreciation to CARICOM for entrusting it with the leadership role in this major initiative, in the clear recognition that it is appropriate for CCST to be in the forefront in an area such as regional science and technology formulation.

It is my firm belief that there is so much to be done in the Caribbean with respect to the application of science and technology to development that it is extremely desirable that major agencies in the region be all involved in this process. For these efforts to be mutually reinforcing, there must be the maximum degree of co-operation and co-ordination. It is in this positive light that the CARICOM, UNESCO, CDB and CCST collaborative efforts indicate the path that must be emulated by all agencies operating in this region.

The CCST, mindful of the fact that it has very limited financial resources has, on an on-going basis, to evaluate in what way it can make the maximum impact. This analysis should not be left to the Executive Committee only, but will be enhanced by inputs from the entire membership.

It is heartening to note that in spite of the modest core budget of the Council, it is possible to secure significant sums from extra-budgetary resources for good projects. One such example was the US\$50,000 donated by various international agencies to fund the CCST-sponsored Agricultural Policy and Management Workshop held in Trinidad in the last quarter of 1983.

In closing, I would like to urge member countries to be more prompt with payment of their annual assessed contributions, without which the execution of the work programme is severely affected.

ANNUAL REPORT AND BALANCE SHEET

FOR 1981-1984

STATEMENT OF INCOME

	<u>COUNTRY/ ORGANIZATION</u>	<u>US \$</u>	<u>US\$ EQUIVALENT (non-convertible currency)</u>	<u>TOTAL</u>
1981	UNESCO	11,000.00	-	11,000.00
1982	<u>LDC's</u>			
	ST. VINCENT AND THE GRENADINES	-	946.53	
	<u>MDC's</u>			
	GUYANA	-	8,351.20	
	JAMAICA	-	12,000.00	
	SURINAME	3,995.62	-	
	TRINIDAD AND TOBAGO	12,105.00	-	
		<u>16,100.62</u>	<u>21,307.73</u>	<u>37,408.15</u>
1983	<u>MDC's</u>			
	CUBA	4,041.58	-	
	GUYANA	-	6,250.00	
	JAMAICA	7,000.00	-	
	SURINAME	7,958.71	-	
	TRINIDAD AND TOBAGO	8,040.00	-	
		<u>27,070.29</u>	<u>6,250.00</u>	<u>33,320.29</u>
	SAREC	10,000.00	-	
	ISNAR	22,400.00	-	
	IDRC	5,000.00	-	
	COMMONWEALTH FOUNDATION	3,558.78	-	
		<u>40,958.78</u>		<u>40,958.78</u>
1984	<u>LDC's</u>			
	DOMINICA	4,351.49	-	
	<u>MDC's</u>			
	TRINIDAD AND TOBAGO	8,040.00	-	
		<u>12,391.49</u>		<u>12,391.49</u>

STATEMENT OF EXPENDITURES

		<u>EXPENDITURES</u>		
	<u>CONTRIBUTIONS</u>	<u>Against</u>	<u>Regular</u>	<u>TOTAL</u>
	<u>RECEIVED</u>	<u>Contrib.</u>	<u>Budget</u>	
1981	Source of Income - UNESCO	11,000.00		
	First Plenary Session Executive Committee Meeting		8,220.76	
	Refund Balance Unexpended		1,689.38	
			1,089.86	
1982	<u>MEETINGS</u>			
	Second Executive Meeting		4,103.50	
	Second Plenary Session		7,642.17	
			<u>11,745.67</u>	
	<u>PROJECTS</u>			
	<u>MISCELLANEOUS</u>			
	Secretarial Services		1,676.57	
	Stationary Supplies		1,369.73	
	Translation and Interpretation		411.25	
			<u>3,457.55</u>	<u>15,203.22</u>
1983	<u>MEETINGS</u>			
	Third Executive Committee Meeting		945.53	
	Third Plenary Session ISNAR-SAREC-IDRC- and Commonwealth Foundation Source	39,166.00	12,664.73	
	Workshop on Agriculture Research Policy and Management		34,695.30	
			<u>13,612.26</u>	
	<u>PROJECTS</u>			
	Preparation-Exchange of Audio-visual Material		4,531.91	

		<u>EXPENDITURES</u>			
		CONTRIBUTIONS	Against	Regular	TOTAL
		RECEIVED	Contrib.	Budget	
1983	<u>PROJECTS (cont.)</u>				
	Commonwealth Foundation Source	3,558.78			
	Conservation-Exchange of Germplasm of Crop Plants		1,608.44	<u>4,531.91</u>	
	<u>MISCELLANEOUS</u>				
	Travel			3,252.22	
	Secretarial Services			3,056.68	
	Translation Services			441.25	
	Communications			<u>225.18</u>	
				6,975.33	<u>25,118.50</u>
1984	<u>MEETINGS</u>				
Jan-Aug.	Fifth Executive Committee Meeting			1,555.99	
	<u>PROJECTS</u>				
	Preparation-Exchange of Audio-Visual Material			3,475.75	
	Establishment of Magazine/Journal for CCST Editorial Committee Meeting			1,277.27	
	Assessment of Science and Technology Capabilities			<u>216.43</u>	
				4,969.45	
	<u>MISCELLANEOUS</u>				
	Travel			637.42	
	Communications			<u>62.12</u>	
				699.54	<u>7,224.98</u>



STATEMENT BY MS. NIOVIS WINKLAAR, REPRESENTATIVE OF THE
GOVERNMENT OF THE NETHERLANDS ANTILLES
ON THE MEMBERSHIP OF THE NETHERLANDS ANTILLES TO CCST

Mr. Chairman, Distinguished delegates,

May I first of all express my appreciation for the excellent way in which the chair has guided the discussions so far.

Speaking on behalf of the Government of the Netherlands Antilles, I would like to express our deep satisfaction and sincere gratitude in the first place, to the Secretariat of the CCST and the Executive Committee for giving special consideration to "the Membership of the Netherlands Antilles to the CCST" in the form of an agenda item.

Furthermore, I want to thank all members of the Council for welcoming the Netherlands Antilles as a full member of this organization. In particular, we are grateful to the friendly countries that initiated the adoption of this resolution and those delegates that addressed such kind words to us. Mention should be made especially of the Honorable Minister of Education, Culture and Youth Affairs of Antigua and Barbuda in his feature address this morning.

Ladies and Gentlemen, you may recall that since the establishment of the Caribbean Council for Science and Technology at the Kingston meeting in 1969, my Government has shown great interest in full participation within this Council. In the past years we have been reaching out to the region, not only because of our sense of belonging to the Caribbean but also because we believe that the strengthening of regional institutions for co-operation will contribute to the creation of a new order of relations among our countries.

In this respect, the Government of the Netherlands Antilles attaches great importance to the work of the CCST as an essential instrument for the development and application of appropriate technology for our region.

Mr. Chairman, the possibility for participation within the CCST as resolved here today, supports also the policy of the Government of the Netherlands Antilles in view of its approach to play a fuller role in the region with its own international identity. As a full member of CCST we will work even harder to co-ordinate science and technology activities on the local level in order to implement the science and technology infrastructure as set out by this organization.

Our Government will now, as soon as possible, initiate the procedures for the signing and ratification of the treaty establishing the CCST. As has been outlined in the Second Plenary Session of CCST, the treaty will be signed by the Kingdom of the Netherlands, but will be applicable to the Netherlands Antilles only. Furthermore, the treaty can only be ratified after the approval by the Parliament has been received. But these are only formalities.

In conclusion, Mr. Chairman, I would once more like to express our deep satisfaction and gratitude for this heartening recognition of our involvement in the CCST.

REVISED WORK PROGRAMME AND BUDGET 1984-85

ASSESSMENT OF NATIONAL SCIENCE AND
TECHNOLOGY CAPABILITIES

A revised questionnaire will be formulated by the Secretariat to solicit specific information on:

- (a) Institutions -
 - (i) Areas of concentration/expertise;
 - (ii) Facilities including specialised equipment;
 - (iii) Human resources and their levels of training;
- (b) Human Resources -
 - (i) Basic qualification;
 - (ii) Experience;
 - (iii) Specialised training.

The revised questionnaire will then be submitted to those countries which have not yet completed the survey. The information obtained from the surveys will be incorporated into a directory of Science and Technology institutions, personnel, skills and institutional capabilities.

PREPARATION OF A SCIENCE AND TECHNOLOGY
JOURNAL/MAGAZINE FOR THE CARIBBEAN

The CCST will delay production of a Journal/Magazine until the necessary resources have been developed. It will, however, publish a newsletter on the work of the CCST and related information in the region. Jamaica will be responsible for this publication and the other Council members will be responsible for circulation within their countries.

PREPARATION AND EXCHANGE OF
AUDIO-VISUAL MATERIAL FOR
EDUCATION IN SCIENCE AND TECHNOLOGY

Work will continue on the completion of a film on Food Technology (See Third Annual Report) in the Caribbean which has already been costed

at US\$11,400. Other productions that are scheduled are a film on Communications and Information and a Caribbean Science Film Magazine details of which are given below. As was stated in the Annual Report, it is intended that all productions be accompanied by booklets providing additional information on the content of the films. These booklets will be used as an educational tool in schools, workshops, seminars, etc.

Budget

	<u>US \$</u>
Production of 1,000 copies for two films	3,000
	<u>3,000</u>
TOTAL:	<u>6,000</u>

Film on Communication and Information

It is proposed that a twenty-minute film on Communication and Information be produced. This is expected to encompass not only organizations involved in telecommunications, but also highlight the use of information systems in the region. It will serve to create awareness and explore the range of applications of communications and information systems in the region.

It will be necessary to have the services of an expert in this field to ensure that the film is relevant to the target audience.

Budget

	<u>US \$</u>
Air travel of film crew (4)	3,000
Perdiem for 10 days	5,000
Audio-visual cassettes	2,000
Incidentals	500
Scriptwriter's fee	1,000
Adviser's fee	500
TOTAL:	<u>12,000</u>

A Caribbean Science Film Magazine

The Film Magazine will contain 3-4 short five-minute fillars on various regional topics of interest in science and technology, forming a composite 15-20 minute television film. Individual components might include:

1. Research and development work;
2. Practical aspects of a scientific principle;
3. Biographical account of a personality;
4. Information on regional activities.

It is intended that this work will be done in collaboration with the various audio-visual units, television stations and national scientific organizations in member countries to identify, research and provide material for programmes.

The audio-visual units in the various countries are expected to provide the technical services required to carry out the filming and the television stations will provide the linkages necessary for the dissemination of the programme.

The production of this Film Magazine would be co-ordinated by the unit already engaged in this overall project and it will be necessary for the project leader to conduct a survey of the various countries to determine the feasibility of this proposal. It is hoped to produce at least two of these programmes in the coming year.

Budget

	<u>US \$</u>
Travel and per diem of co-ordinator for feasibility survey	3,000
Audio-visual cassettes	1,000
Incidentals	600
Air travel for Film crew (4)	3,000
TOTAL:	<u>7,600</u>

TOTAL BUDGET

	<u>US \$</u>
Booklets	6,000
Food Technology film	11,400
Communication and Information film	12,000
Science Magazine	<u>7,600</u>
TOTAL:	<u>37,000</u>

CONSERVATION AND EXCHANGE OF
GERMPLASM OF CROP PLANTS

In 1983, funds (f2,000) were obtained from the Commonwealth Foundation for the implementation of work in this area. A consultant was recruited to initiate work on this project and his report is contained in document CDCC/CCST/84/4. Arising out of his recommendations, a plant breeder has been recruited to complete the first stage of the project and will commence work in September 1984.

His terms of reference are to:

- (a) determine endangered germplasm of crop varieties (food and forest) of Jamaica, Grenada and Guyana;
- (b) determine the most suitable conservation methods for the particular crop varieties and recommend appropriate mechanisms for such conservation;
- (c) advise on protocol for exchange of germplasm and on collaboration amongst national and regional institutions.

At the end of these fact-finding visits, he will prepare and submit a report to the CCST Interim Secretariat at the ECLAC Subregional Headquarters for the Caribbean which will be circulated to member governments for consideration and appropriate action.

IMPLICATIONS OF
NEWLY-EMERGING TECHNOLOGIES

A regional report on the Implications of New Technologies for Caribbean Development has recently been completed and some issues requiring urgent attention have been highlighted. This document is distributed to the Plenary

Session for discussion and comment. Out of these discussions, a workshop will be planned for 1985 by CCST in conjunction with UNESCO and the United Nations Centre for Science and Technology for Development to further elaborate these issues.

Budget

	<u>US \$</u>
Airfare and perdiem for participants	
Printing of documents	<u>15,000</u>
TOTAL:	<u>15,000</u>

A SCIENCE AND TECHNOLOGY
POLICY AND PLAN FOR THE REGION

The CCST will continue work on this important overall area based on the outcome of deliberations of this item on the agenda for the Fourth Plenary Session.

CCST will co-ordinate its efforts with other agencies in the region such as CARICOM and UNESCO, in assisting to develop and strengthen technological capabilities in CCST member countries in the various aspects on science and technology highlighted in the plan.

INFORMATION SYSTEMS

The CCST will not elaborate any programme in this area because of activity already being undertaken by the ECLAC/CDC Secretariat. ECLAC (through its regional information programs) in conjunction with UNESCO, has scheduled a Training Workshop/Seminar on Network Development in the Caribbean, and a Consultation Meeting on the establishment and development of a Regional Network for the Exchange of Information and Experience in Science and Technology for Development in the Caribbean (CARSTIN).

It is expected that at the end of the workshop, participants will have gained the necessary knowledge and information to participate actively in the on-going efforts to establish and develop a Caribbean Science and Technology Information Network (CARSTIN), to contribute to

its functioning and to make effective use of the network facilities and services for the benefit of the Science and Technology Information user groups in the region.

The principle objective of the Consultation Meeting is to seek and receive advice from specialists from the Caribbean on the effective implementation of the project for the establishment of a regional network for the exchange of information and experience in science and technology for development in the Caribbean region (CARSTIN).

For this purpose, invited specialists will be asked to:

- assess the present situation of science and technology information in the Caribbean;
- identify the priorities for national science and technology information development, with particular reference to the needs of the less developed countries;
- determine the structure and contents of the activities to be implemented through the CARSTIN project on a short and medium term basis in response to these priorities, and define the modalities of their implementation;
- advise on the mechanisms of co-ordination and co-operation required at the national and regional level for the effective participation of the countries in the development of the CARSTIN project.

The CCST proposes, however, to hold a Workshop on micro-computers in the second quarter of 1985. This workshop will be aimed at public sector officials of government ministries and state enterprises and will serve to create computer awareness, to explore the range of applications of micro-computers and to identify selection criteria with respect to their purchase.

The Secretariat will attempt to secure extra-budgetary funding for this activity.

HEALTH, NUTRITION AND PHARMACEUTICALS

As outlined in the Annual Report, a Workshop on the Pharmaceutical Sector in the Caribbean will be held in Cuba from 22-24 October 1984, with

a meeting of the CCST Specialized Committee in this field to follow on 25 October.

The Aide-Memoire to this workshop indicates that one of its objectives is to explore possible collaborative mechanisms to promote greater self-sufficiency with respect to pharmaceuticals. The total cost of this workshop has been estimated at US\$25,000.

CONSULTATION ON CASTALAC II

In relation to the Second Conference of Ministers on the Application of Science and Technology to Development in Latin America and the Caribbean (CASTALAC II), a consultation of regional officials will be held in Trinidad and Tobago from 5-7 November 1984.

CCST has agreed to host this consultation jointly with UNESCO. It will explore the issues to be discussed at CASTALAC II which will be convened in April 1985 in Brazil.

