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UNITED NATIONS

ECONOMIC AND SOCIAL COUNCIL

Distr.
LIMITED

E/ECWA/NR/CONF.2/10
20 December 1977

Original: ENGLISH

ECONOMIC COMMISSION FOR WESTERN ASIA

First Preparatory Regional Meeting for United Nations Conference on Science and Technology for Development - UNCSTD - 19 - 21 December 1977
Beirut - Lebanon

REPORT OF ECWA'S FIRST PREPARATORY REGIONAL MEETING FOR THE UNITED NATIONS CONFERENCE ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT (UNCSTD)

Beirut, 19-21 December 1977

77-1496

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I. Organization of the Meeting

1. The first ECWA Regional Preparatory Meeting for the United Nations Conference on Science and Technology for Development (UNCSTD) was held in Beirut from 19 to 21 December 1977.

Attendance

2. The meeting was attended by the representatives of the following member countries: Bahrain, Iraq, Jordan, Kuwait, Lebanon, People's Democratic Republic of Yemen, Saudi Arabia, Oman, Syria and the Yemen Arab Republic. Observers from Sudan, Tunisia and Turkey were also present.

3. The following Arab organizations were represented:

CASTARAB, Council of Arab Economic Unity, ALECSO, Union of Arab Scientific Research Councils, Arab Fund for Economic and Social Development and the Abu Dhabi Fund for Arab Economic Development.

4. The Secretary-General of UNCSTD participated in the meeting. The following UN organizations attended the meeting:

United Nations Conference on Science and Technology for Development (UNCSTD) Secretariat, Economic Commission for Africa (ECA), Economic Commission for Latin America (ECLA), Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations Conference on Trade and Development (UNCTAD), United Nations Development Programme (UNDP), United Nations Industrial Development organization (UNIDO), Food and Agriculture Organization (FAO), International Labour Organization (ILO), United Nations Educational, Scientific and Cultural Organization (UNESCO) and World Intellectual Property Organization (WIPO).

5. A detailed list of participants in the meeting is given in Annex I.

Inaugural Addresses

6. His Excellency, Mohammad Atallah, President of the Reconstruction and Development Board, representing the Lebanese Government, inaugurated the meeting. In his opening address, he emphasized the important role of science and technology in society, pointing to the various international activities in this field since the convening of the First World Conference on the Application of Science and Technology for the Benefit of the Least Developed Countries in 1963. He stressed the need to apply science and technology to the development of the Arab World. (The full text of the speech is shown in Annex II).

7. Mr. Mohammad Said Al-Attar, Executive Secretary of ECWA, welcomed H.E. Mohammad Atallah, President of the Reconstruction and Development Board; Mr. DaCosta, Secretary-General of the UN Conference on Science and Technology for Development (UNCSTD); the participants and observers. The Executive Secretary of ECWA outlined the role of science and technology in the economic progress of nations and emphasized the importance of work currently underway for the preparation of the UN Conference on Science and Technology for Development. Mr. Al-Attar also referred to ECWA's other activities in the field of science and technology, particularly the feasibility study for the establishment of an Arab Centre for the Transfer and Development of Technology. (The full text of the speech is given in Annex III).

8. In his speech, Mr. DaCosta, Secretary-General of (UNCSTD), referred to the objectives of the Conference as described in the Economic and Social Council (ECOSOC) resolution 2028 (LXI) and outlined the general characteristics of the Conference. The first of these is that it should deal with the scientific and technical dimensions of the New International Economic Order. Furthermore, the Conference and its preparation represent fundamentally a governmental and intergovernmental process in which an essential principle

is the respect for national sovereignty. Mr. DaCosta pointed out that the preparation for the Conference can be seen as an ascending process, its purpose being the discussion of the whole complex of policy issues on the application of science and technology to development. He added that concerned UN organizations have indicated their readiness to contribute to the preparation for the Conference. (The full text of the speech is shown in Annex IV.)

Election of Officers

9. The meeting unanimously elected Mr. Hatif Jalil (Iraq) as Chairman, Mr. Abdurahman Ohali (Saudi Arabia) as Vice-Chairman and Mr. Fakhreddine Daghestani (Jordan) as Rapporteur.

Agenda

10. The meeting adopted the following agenda:

(1) Opening of the Meeting.

(2) Address by H.E. Mohammad Atallah, President of the Reconstruction and Development Board, Lebanon.

(3) Statement by Mr. M.S. Al-Attar, the Executive Secretary of ECWA.

(4) Statement by Mr. DaCosta, Secretary-General of UNCSTD.

(5) Election of officers.

(6) Adoption of Agenda.

(7) Organization of the work of the Meeting.

(8) General statements by delegates and observers.

(9) Briefing on the UNCSTD.

(10) Review of progress in the preparation of national papers by Member Countries.

(11) Recommendation of the five (5) Subject Areas for the Conference.

(12) Other business.

(13) Adoption of the report.

II. Briefing on the United Nations Conference on Science and Technology for Development

(Agenda item 9)

11. In the discussion that followed the presentation of the paper of the Secretary-General of UNCSTD, a number of observations were made. Some of Mr. DaCosta's observations and responses to questions from the floor are summarized in Annex V.

12. The Secretary-General of the UNCSTD provided a detailed introduction to this discussion. He stated that there are de facto three types of subject areas:

National subject areas determined by national priorities;

Regional subject areas for the regional paper that emphasize areas of importance for the region;

Illustrative subject areas required by ECOSOC resolution 2028, as interpreted by the Preparatory Committee.

Resolution 2028 established the following parameters for selecting the subject areas:

they should be of importance to all countries, especially to LDC's;

they should not cover too wide or too narrow an area;

the subject areas themselves should be inter-disciplinary in nature.

At present, the subject areas are simply for the illustration of the national, regional and global studies. The subject areas to be selected are not binding on the national papers.

13. The national bodies are requested to submit the first draft of their national papers to ECWA by 1 May 1978. However, they are expected to continue work on their papers at least until the second regional meeting in July 1978 according to the interpretation of ACAST and the previous regional meetings.

The subject areas selected by the other Economic Commissions emphasized vertical rather than horizontal subjects. Although this meeting is free to select any type of subject areas, it would be helpful if it also emphasizes vertical subject areas.

14. Mr. DaCosta then discussed the three levels of the preparatory work for UNCSTD. There is the national, regional and global level. These three processes are on-going in parallel and not consecutive.

15. The only exigency is that the national papers be authentic and that they reflect accurately national opinion. The national paper should not be propagandistic. The guidelines prepared by the Preparatory Committee provide a check list and a format for the presentation of the national papers. However, these guidelines are not binding and each country is totally free to select its own guidelines.

16. On the subject of the relationship between CASTARAB and UNCSTD, Mr. DaCosta emphasized that UNCSTD is part of an on-going process and is not a new activity. As far as CASTARAB is concerned, the effort and studies can be fully utilized in preparing the national papers. UNCSTD, however, emphasizes NIEO* and its new ideas. NIEO substitutes isolated actions with a systematic approach in order to help remove the obstacles preventing the utilization of science and technology in development. NIEO adopts the view that there are numerous paths to follow in development, and places somewhat different emphasis on social and cultural issues than CASTARAB. It also pays greater attention to the ever growing concern in developing countries to self-reliance and autonomous decision-making.

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* New International Economic Order

17. The Secretary-General of UNCSTD indicated that he was prepared to provide consultants and that he would try to introduce more flexibility in providing consulting services.

Representatives of the U.N. System and Arab Regional Organizations participating in the meeting declared that their respective Organizations are willing to provide whatever assistance they can provide for the preparation of national papers.

The Secretary-General of UNCSTD stressed that according to the pertinent Resolutions of the General Assembly he was responsible for the general coordination of the preparations of the Conference and therefore he would appreciate being informed of any cooperation provided to the Governments.

18. The ECWA secretariat stated that it has arranged with Professor Zahlan to provide consulting services to countries requesting such services. The ECWA secretariat asked Mr. DaCosta to confirm its understanding that members should address their request for assistance to ECWA. In the event that ECWA needed additional support it would request this from the UNCSTD secretariat. Mr. DaCosta stated that requests could be addressed directly to the Conference Secretariat with copy to ECWA or vice versa, and he would ensure to provide funds as available for this purpose.

19. The UNCSTD Secretary-General stated that it is the responsibility of member countries to prepare the national papers. However, the Secretariat of UNCSTD could assist in the financing of consultants or seminars organized as part of the national effort to prepare the national papers.

20. The flexibility in the choice of topics as well as the possibility of preparing a single paper for two or more countries facing similar problems were also discussed. It was urged that the largest possible number of national institutions and individuals be mobilized in the preparation of the national papers.

21. The meeting took note and endorsed the views expressed by the Advisory Committee on the Application of Science and Technology to Development and confirmed both previous Regional Meetings, according to which:

"(a) That the national paper should be considered as an evolving document, the first version of which is due on 1 May 1978; however, in order to achieve the maximum benefit of the exercise, and to avoid disbanding the focal points for the Conference after said date, it is indispensable to proceed with a continuous revision and updating of the national paper until the Conference itself. Such a procedure should ensure the full use of subject areas and real interaction between national, regional, inter-regional and topical preparations.

(b) That the Conference was not an end in itself, but a crossroad in which the past and future activities of the United Nations system at large (Member States, United Nations, its organizations and other concerned bodies, the intergovernmental and organizations that do not belong to the United Nations system and non-governmental organizations) should be assessed, carefully planned and forecast."

III. Review of Progress in the Preparation of National Papers by Member Countries

(Agenda item 10)

22. After a short introduction by Mr. DaCosta in which he stressed the importance of the national preparatory work, the chairman invited the delegates to present their report on the progress made in the preparation of the national papers.

Preparation of National Papers

Jordan

23. The Jordanian delegate presented an outline of the efforts underway in his country. Jordan's development is the result of an interdependence between the state and the donor countries providing technical assistance.

A seminar involving the private and the public sectors was organized in Jordan to identify objectives and to acquaint the population with the modes of thought on science and technology.

This is to be followed by a Conference to which international experts and neighbouring countries will be invited. A steering Committee representing the various sectors of the Jordanian economy was set up to plan this Conference. Terms of reference are:

(a) planning for the maturalization of the Conference.

(b) preparing the national paper.

It is expected that the steering committee will work and participate effectively in the country's effort concerning planning of scientific and technological activities, reduce subjectivity, wherever it may occur, in any planning process, and be effective in the determination of priorities of scientific and technological activities.

Five papers have been prepared for the Conference on the following topics:

(1) Science and technology potential of Jordan: Manpower, training, research output, fields of application, expenditure on science and technology and the problems facing it, and institutional infrastructure.

(2) Legislation and measures required to develop science and technology.

(3) Regional and international cooperation in science and technology.

(4) Organizational structure for science policy.

(5) Priorities for science and technology.

The following topics were considered by the steering committee to be of high priority:

Water resources; Energy; Food; Dry Farming; Mineral Resources; Vocational Training; Housing.

Iraq

24. The Iraqi delegate provided the following information:

(1) A national preparatory committee for UNCSTD has been established. This committee consists of representatives from the relevant sectors, and its headquarters are at the Scientific Research Foundation.

(2) The collection of basic information needed for the drafting of the national paper has been underway.

(3) The draft paper will be discussed at the national level by all concerned, government and non-governmental organizations.

(4) Iraq pursues a policy of effective participation in the ECWA activities directed towards UNCSTD.

(5) Iraq pursues a policy of effective participation in the activities of Arab Organizations dedicated to the preparation for UNCSTD with a view to the coordination of Arab positions. Iraq has called for the formation of an Arab Task Force from amongst the national preparatory committees and Arab and Regional organizations for this purpose.

(6) Iraq has called for coordinating the position of the Group of 77 with regard to UNCSTD through contacts and meetings during the preparatory period leading to and during the Conference.

(7) The Committee is undertaking an analysis and evaluation of the conditions of institutions of science and technology in Iraq.

(8) The necessary studies for setting up a national centre for the transfer and development of technology have been completed, and the steps leading to its establishment are now underway.

People's Democratic Republic of Yemen

25. The delegate of PDRY stated:

(1) That there is no national institution concerned with the application of science and technology to development.

(2) A national committee for the preparation of the UNCSTD national paper is being formed.

Yemen Arab Republic

26. The delegate from Yemen Arab Republic stated that because of the similarities in the conditions of the Arab States, he supports the Iraqi proposal for the Arab group to cooperate in preparing a regional paper. He also added that studies are underway to set-up a national committee to prepare the national paper.

Syria

27. The Syrian delegate stated that:

(1) Syria has established a national committee.

(2) The Ministry of Higher Education, in collaboration with the relevant institutions, has been entrusted with the preparation of the national paper.

Lebanon

28. The Lebanese delegate stated that the authorities concerned have asked, according to instructions from the UNCSTD Secretariat, the help of a Consultant to prepare the national paper. Although most of the pre-requisites are available, it did not start awaiting the answer of the UNCSTD Secretariat about the Consultant. The representative of ECWA Secretariat indicated that such Consultant is available at ECWA whenever needed.

Bahrain

29. The Bahraini delegate stated that although preparation for the national paper has not started, this problem is receiving considerable attention.

Saudi Arabia

30. The Saudi Arabian delegate stated that the Ministry of Planning has contacted the various government and scientific institutions to determine its needs for science and technology. Upon receipt of this information, the Ministry will be in position to prepare the national paper.

31. In connection with paragraph 28, the Secretary-General of UNCSTD clarified that the selection and recruitment of experts did not depend on UNCSTD alone and were made according to procedures more adapted to long-term technical assistance than to an urgent task implying severe calender constraints. Very little could be done to shorten such lengthy procedures, originally destined to give maximum guarantees of quality and objectivity. He also stated that in some cases Member States also did not present early requests or respond quickly to candidates proposed.

IV. Recommendations on the Five (5) Subject Areas for the Conference

(Agenda item 11)

32. Professor Zahlan, ECWA's Consultant, presented a summary of the Working Paper on the Five Subject Areas (E/ECWA/NR/CONF.2/2). A copy of this paper had been sent to all governments concerned and it was also distributed at the beginning of the Conference.

After the presentation of the paper, comments from the delegates were invited.

Discussion

33. The delegations thought highly of the Working Paper of Professor Zahlan, and many suggested that it could provide a good basis for preparing the national and regional papers. Mr. DaCosta also spoke highly of the paper.

34. A number of delegates commented on the importance of basic and applied research, the relationships between them as well as the relevance of the R&D effort to the development of the countries of the region. The importance of basic research for innovation and creativity was also stressed. Some of the delegates urged that the national papers concern themselves with R&D policies.

35. One delegate remarked that the Working Paper did not concern itself with the relationship between central and long term planning, and the development of science and technology in an LDC. Changes in S&T are related to the structural transformation of a society. Such a transformation involves cultural, educational and institutional change. Long range planning is very necessary for such an undertaking.

36. Several delegates pointed out that the arabization of science and technology is considered vital in achieving the transfer of science and technology to widest sectors of the people.

37. Several delegates pointed out that the popularization of science is necessary to create a broad foundation for the absorption of technology and should lead to an increase in labour productivity.

38. A number of delegates were concerned with the relationship of national will to the problems under consideration. This discussion addressed itself to the existence or non-existence of government dedication to the acquisition of science and technology. Admittedly the problem is of considerable complexity. The study of the process of transmitting effectively and within a reasonable period of time, the thoughts, findings and problems of the specialist to the decision maker was deemed of importance to the national committees.

39. A number of delegates stressed that the protection, conservation, development and rational utilization of natural resources should be of concern to the states of the region.

40. A number of delegates concurred that it is important to find suitable mechanisms for cooperation between the Arab States and other Third World countries for the purpose of establishing a suitable institutional basis for international transactions in technology. UNCSTD provides an opportunity for the establishment of such a legal framework.

41. A delegate suggested that the national papers should look into the claims that the governments and developed countries have no control over the TMC's and to try and identify the existence of such links between them as is well known from the experience of developing countries.

42. One of the delegates urged that the Arab states should concern themselves with the efforts now under way in WIPO for the revision of the Paris Convention for the protection of intellectual property with a view to altering the asymetrical relationships existing in the field of intellectual property (patents).

43. One of the delegates stated that the national papers should be concerned with the relationships of TNC's with the states of the region. This knowledge should determine the future conduct of the governments of the region towards TNC's.

44. That greater care should be taken in the appropriate use of technologies, once acquired, was the concern of a number of delegates. The radio and TV technology received special attention. A number of observations were made on the poor use being made currently of these facilities.

45. The waste of national skilled and educated manpower was considered by many to be of great importance comparable to if not exceeding that of brain drain, and it was suggested that the national papers should address themselves to this problem. The suggestions made in the Working Paper on this subject should be further developed, and additional indicators for studying the career patterns of scientists and technologists should be sought.

46. The priority of agriculture in the region was stressed by a number of delegates. A balance between agricultural and industrial development is needed. The rapid growth in population and the high dependence on food imports - presently at 50% of consumption - should be important factors in the promotion and development of the agricultural sector.

47. The danger that the region may become a place for indescriminate experimentation with new inappropriate technologies was pointed out by a delegate.

48. Several delegates stressed the issue of advanced and appropriate technologies and emphasized that each case should be examined separately with regard to the choice of technology most suited to fulfil the objectives for which it is intended.

49. One of the delegates urged that the importance of all levels of manpower - semi-skilled and skilled as well as of specialized engineers and technologists - should be a matter for concern. A very basic issue here is the relationship between quality and quantity. The demand for education is high and increasing, while the quality needed is determined by the type of science and technology sought.

50. A delegate considered that a basic challenge to the governments and the people of the region is how to best utilize the considerable financial resources now available to attain their developmental objectives taking into consideration the conservation of natural resources for the benefit of future generations.

51. One of the delegates urged that the Arab States approach the issue of science and technology from the premise of how to attain the desired level rather than from whether they are capable of doing so.

52. Several delegates suggested that new approaches to the problems of science and technology be sought and utilized.

53. Several delegates stated that the full development of man, his personality and his relationship with nature should be the object of science and technology, since man is the source and object of development.

54. Several delegates and the representative of ALECSO stressed the achievement of each Arab State towards Arab economic integration in order to schieve self-sufficiency.

The Selection of the five subject areas

55. A number of the speakers commented on the subject areas to be selected. However, in the light of the comments made on this subject by the Secretary-General for UNCSTD and the selections of other regions (ECE, ECLA, ESCAP, ...)

the heads of the delegations met in closed session and agreed on the following 5 subject areas:

(1) Food and Agriculture.

(2) Transport and Communications.

(3) Natural Resources: Rational management and utilization, development and conservation of natural resources, renewable and non-renewable, and development of non-conventional sources of energy.

(4) Industrialization.

(5) Human Settlement: health, social services, housing and environment.

56. It was the understanding that these five areas are merely for illustrative purposes and are not binding on the national committees preparing the national papers. Each national paper will emphasize the national priorities.

57. After a brief discussion the delegates approved the proposed five subject areas.

58. Several delegates emphasized the coordination in the selection of the subjects between the Arab States in ECWA and those of ECA. The ECWA secretariat replied that it has extended an invitation to all the Arab countries who are not members of ECWA to attend the first regional preparatory meeting for UNCSTD. Furthermore, ECWA has been coordinating its activities with those of other Arab countries in cooperation with the ECA secretariat. The representative of ALECSO declared that ALECSO is considering holding in the near future a meeting of representatives of all Arab States and Arab Regional organizations for the purpose of achieving the full coordination amongst them in the framework of the preparations and active participation in UNCSTD.

V. Other Business
(Agenda item 12)

Dates, Place and Agenda of ECWA Second Regional Preparatory Meeting for UNCSTD

59. The meeting, taking into consideration the dates already fixed by other Economic Commissions for their Second Regional Preparatory Meeting for UNCSTD, decided to hold its Second Regional Preparatory Meeting in Beirut between 10-14 July 1978.

60. The meeting approved the following draft agenda for ECWA Second Regional Preparatory Meeting for UNCSTD:

1. Opening of the Meeting
2. Election of Officers
3. Adoption of the Agenda and organization of work
4. Review of National Papers
5. Draft Regional Report
6. Any other business
7. Adoption of the Report
8. Closure of the Meeting

61. With reference to item (5) of the provisional agenda, referred to in the preceeding paragraph, the Secretariat of ECWA will prepare, within its available resources, taking into account the views expressed in the present meeting and in full interaction with Member States and concerned organizations, a draft regional report for consideration by the Second Regional Preparatory meeting for UNCSTD. Such report will deal mainly with policies and plans of actions relevant to the problems at the national, regional, inter-regional and global levels in accordance with the agenda of the Conference, using, whenever appropriate, subject areas as illustrations. The final regional report will be submitted to the Preparatory Committee of UNCSTD at its third session in September 1978.

VI. Adoption of the Report of the Meeting
(Agenda item 13)

62. The meeting adopted its report on 21 December 1977.

VII. Closure of the Meeting

63. Following closing speeches made by the Chairman, the Secretary-General of UNCSTD, ECWA's Secretariat, representative of ESCAP on behalf of U.N. Organizations participating in the meeting and representative of ALECSO on behalf of Arab States and Arab Regional Organizations participating in the meeting, the Chairman declared the meeting closed.

A N N E X I

LIST OF PARTICIPANTS

I. Representatives of Member Countries

Bahrain

Mr. Mohsen Al-Bakshi
First Secretary
Ministry of Foreign Affairs

Iraq

Mr. Hatif Jalil
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Scientific Research Foundation

Mr. Ghazi Derwish
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Scientific Research Foundation

Mr. Jaafar Abdulghani
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University of Kuwait

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Secretary General
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Central Planning Organization
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II. Observers from Other Countries

Sudan

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Beirut - Lebanon

Tunisia

Mr. Mahmoud Al-Ayadi
Consultant
Tunisian Embassy
Beirut - Lebanon

III. Arab Organizations

CASTARAB

Mr. Abdel Wahed Zhiri
Head
Division of Scientific Research
Rabat - Morocco

Council of Arab Economic Unity

Mr. Abdul-Al El-Sagban
Secretary-General

Mr. Atef Sedky
Chief Adviser of the Secretary-General
Professor at the University of Cairo

Mr. I. Siam
Economic Expert

ALECSO

Mr. U.A. El-Khouly
Assistant Director-General for Science and Technology

Mr. Adel A. Sabet
Under-Secretary of State
Ministry of Scientific Research
Cairo - Egypt

Union of Arab Scientific Research Councils

Mr. Nazar Al-Shawi
Secretary-General

Arab Fund for Economic and Social Development

Mr. Yusif Sayegh
Advisor

Mrs. Flora Alyassini
Project Economist
AFESD/UNDP Joint Program

Abu Dhabi Fund for Economic Development

Miss Maha El-Shawwa
Economic Research Officer

IV. Representative of UN Organizations

UNCSTD Secretariat

Mr. J.F. DaCosta
Secretary-General

Mr. V.J. Ram
Principal Advisor

Mr. O. Aslaoui
Chief of the Office of the Secretary-General
of the Conference

Advisors Committee for the Application of Science and Technology to Development - ACAST

Mr. Hassan Saab
Member Technology Affairs Officer

Economic Commission for Africa (ECA)
Mr. Rayi Elliott - Science and Technology Affairs Officer

Economic Commission for Latin America (ECLA)

Mr. Isaias Flit
Co-ordinator for Science and Technology

Economic and Social Commission for Asia and the Pacific (ESCAP)

Mr. Abid Hussain
Chief, Industry, Housing and Technology

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Mr. R. Faruqi
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ANNEX II

ADDRESS BY H.E. MOHAMMAD ATALLAH, PRESIDENT OF THE RECONSTRUCTION AND DEVELOPMENT BOARD, AT THE OPENING OF THE FIRST REGIONAL PREPARATORY MEETING FOR THE UNITED NATIONS CONFERENCE ON SCIENCE AND TECHNOLOGY FOR DEVELOPMENT. BEIRUT, 19 DECEMBER 1977

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In the name of the Lebanese Government I have the honour to welcome you to this First Regional Preparatory Meeting for the United Nations Conference on Science and Technology for Development due to be held in 1979. This important scientific meeting is being attended by delegations of a high scientific level representing the 14 Arab countries of which the Economic Commission for Western Asia (ECWA) consists. Numerous specialized international organizations and competent regional and Arab organizations and institutions are also participating, together with a number of individuals of standing in this field.

The important role of science and technology in the life and the destiny of peoples is recognized by individuals, governments and all the regional and international organizations. The first world conference held by the United Nations in this field was the 1963 Conference on the Application of Science and Technology for the Benefit of the Least Developed Countries. This was followed by continuous activity in this field which resulted in the preparation of the World Plan of Action and the Regional Plans of action for the Application of Science and Technology to Development. In 1973 the United Nations established the Committee on Science and Technology for Development as an organ of the United Nations Economic and Social Council. Through the activity and the initiatives of the Committee, the General Assembly of the United Nations, in its thirty-first session in December 1976, approved the convening of this World Conference and established guidelines for its appropriate preparation. It is noteworthy that this World Conference is one of a series of world conferences prescribed by necessity and by an appreciation on the part of both individual nations and the world organization of the need to emphasize and to remedy existing problems. Hence the conferences on environment, population, food, industrialization, The Law of the sea, employment, housing and desertification.

The conference due to be held in the autumn of 1979 will deal with the role of science and technology in development and in shaping the course of present day socio-economic human relations to the benefit of mankind as a whole in the light of the new international economic order which the world community is currently endeavouring to define and adopt. With regard to the developing countries one of its main objectives is the achievement of maximum self-reliance and self-sufficiency.

The rapid developments in the sphere of science and technology and in all the activities of human life as we live it today confirm the enormous potential which could be made available to improve the life of individuals and peoples, especially in the developing countries. This fact does not, however, obviate the serious dangers facing mankind as a result of the misuse of this potential and of the achievements of constantly evolving science and technology. Consequently, a fundamental objective must be to dvise ways and means of directing this human capability for the good of mankind. Such a world conference must stress the correlation between politics and science and technology as complementary and interacting factors in socio-economic development. In this way an effective linkage would be established between the fields of science and technology and the fields of socio-economic development in all their various forms and aspects.

In this part of the world - the Arab East, or rather the Arab World in general - we have an urgent need to utilize this global progress in the sphere of science and technology and derive optimum and proper benefit from all our human and material resources, production factors and developmental and cultural orbits in order to raise the standard of living of our peoples and play a cultural and human role in tomorrow's world not less significant and brilliant than our former role in the history of human progress.

All responsible persons in the Arab World, particularly men of science and technology and those engaged in related fields, are called upon to show due concern with the sphere and its role in the lives of our peoples and in directing the process of development therein in the best and most appropriate manner. Responsiveness to human progress and participation in its various activities is a fundamental duty that cannot be ignored.

We in Lebanon, while emerging steadfastly from a time of great trial, are resolved to make up for the pause in our rapid acquisition of technology which resulted from the suspension of normal life in our country. We are determined that the tapping of modern technology from its reliable sources shall be one of the developmental aims that we wish to resume with all the capabilities for acquisition and absorption for which the Lebanese are so well-known and with all the resources available from our developing institutions.

I would like to thank our colleagues working in the Economic Commission for Western Asia for having convened this conference in Beirut and for having so carefully prepared it in a manner conducive to its success and effectiveness. I would also like to refer to the Commission's numerous activities in the sphere of science and technology and, particularly, its commendable role and valuable endeavours towards the establishment of an Arab Centre for the Transfer of Technology, the study and preparation of which are still continuing. If our regional or Arab co-operation is to affirm itself as a fundamental factor in the achievement of mutual and reciprocal benefit for the various parts of our countries and peoples I hope that its first fruits in this sphere will be the provision of effective support by all the Arab countries for the establishment of this Centre in a manner conducive to its effective and important role.

Once again I welcome you in your country, Lebanon, and your city, Beirut, and wish your conference every success.

Annex III

ECONOMIC COMMISSION FOR WESTERN ASIA

ADDRESS BY MR. MOHAMMAD SA'ID AL-ATTAR
EXECUTIVE SECRETARY, ECONOMIC COMMISSION FOR WESTERN ASIA

Your Excellency, President of the Council for Development and Reconstruction,
Honorable Delegates and Observers,
Ladies and Gentlemen:

I would like first and foremost to thank the Lebanese Government for sponsoring this Meeting and to welcome its representative H.E. Dr. Mohammad Atallah, President of the Council for Development and Reconstruction. I would also like to welcome by esteemed colleague Mr. DaCosta, Secretary of the United Nations Conference on Science and Technology for Development who has come especially to attend the latest regional meetings being held in preparation for the Conference.

It also gives me great pleasure and great honour to welcome you to this First Regional Meeting which is being held in preparation for the Conference on Science and Technology for Development which the United Nations is planning to convene in August 1979.

The importance of science and technology in the course of human progress has compelled the United Nations and its different specialized agencies ever since their establishment to assign a place of special prominence to this area in the developmental activities they have undertaken in their wide variety of topic and scope. The Conference on the Application of Science and Technology for the Benefit of the Least Developed Countries, which was held in 1963, was the First International Conference sponsored by the United Nations in this field. In the wake of this Conference a number of substantial organizations emerged to give an impetus to the follow-up activity that was needed. Among these organizations were the United Nations Office for Science and Technology and the Advisory Committee on the Application of Science and Technology

to Development. This latter helped preparing the "World Plan of Action for the Application and Science and Technology to Development" and the "Regional Plan of Action for the Application of Science and Technology to Development." In the Middle East the responsibility fo this task is being acquitted at the present time by the Economic Commission for Western Asia in full co-operation with all the other United Nations Organizations professionally involved in the field of science and technology. Among these, and in addition to the organizations just mentioned, is the Committee on Science and Technology for Development, which is deemed to be one of the more important committees of the United Nations Economic and Social Council. It was, in fact, one of the prime movers behind the drive to convene the International Conference on Science and Technology for Development. The General Assembly of the United Nations decided on 21 December 1976, during its Thirty-First Session, to hold this International Conference and it adopted a general framework for the preparations the Conference deserved. Our Meeting today is one of several regional meetings thus planned in preparation for the Conference.

Ladies and Gentlemen:

The objectives of the United Nations Conference on Science and Technology for Development and the rationale behind the multitudinous efforts expended in preparation for it by different countries are not limited to the goal of providing the ways and means necessary for securing the human essentials defined in development plans: This scope is larger in that science and technology contain in and of themselves an integrated world of universal, dynamic and creative cultural forces. Moreover, the relationship between science and technology on the one hand and development concepts favourable to development sometimes clash with the technological policies and institutions of particular countries.

We believe that the preparations made for this Conference and the dynamic activities undertaken to this objective for over two years on the variety of national , regional and international plans are no less important of themselves than the resolutions and recommendations that the Conference may adopt when it finally convenes.

It is generally agreed that the entire world, and the Arab World in particular, are in urgent need of harnessing to wise and fruitful use the great strides taken in science and technology and now available everywhere which have surpassed even the dreams entertained but a few decades ago. The capacity for discerning and fully utilizing our human and material potential and for discovering the paths to development and civilization is a fundamental prerequisite for peoples who wish to raise their standard of life and to plan the civilized human role expected of them.

It gives me great pleasure to be able to present before you in this address some of the activities of this past year of the Natural Resources, Science and Technology Division of ECWA in the area of our concern at this Meeting - the area of science and technology for development.

The Division prepared a special study entitled "Mechanisms for the Transfer and Development of Technology in the ECWA Region". This study was discussed at the Fourth Session of ECWA which took place in Amman in April 1977. The Session adopted resolution 51/4 on the study of the possibility of establishing a Western Asia Center for the Transfer and Development of Technology. In the effort to implement this resolution, a joint meeting of interested United Nations agencies, regional and Arab organizations and establishments and Arab development funds was held in Beirut towards the end of October 1977. At this meeting the project for an Arab Centre for the Transfer and Development of Technology was discussed. Field trips followed embracing all the countries of the Arab World. ECWA shall pursue its implementation programme for this study to its completion and it shall submit it to the Fifth Session of ECWA which will also be held in Beirut in April 1978.

A few weeks ago the Commission also held a Seminar on the Transfer and Development of Technology in the Arab Middle East at which a large number of scientists experts and representatives of interested organizations participated. Last but not least, the Division undertook the preparations for this First Preparatory Regional Meeting at which we are presently assembled.

I do not have to stress how important it is that all the Arab countries, and specially those who are members of ECWA, give their full support to this vital project in the area of science and technology in the Arab World. I can, however, point to the role that the array of international, regional and Arab organizations and bodies have already played in promoting the successful completion of this project; I must thank them energetically for their serious contributions to all the meetings and activities that were conducted in this regard.

In conclusion, I welcome all the participants at the present Meeting: the delegates of the different member countries, the observers and the representatives of the international, Arab and National bodies and organizations who are contributing to this Meeting. Once again I thank the Lebanese Government, represented by Dr. Mohammad Atallah, President of the Council for Development and Reconstruction, for graciously patronizing this Meeting and for the generous and valuable assistance it has given in this as in every one of ECWA's activities.

I wish you all and the present Meeting every success and good fortune.

Annex IV

STATEMENT BY MR. DACOSTA, SECRETARY GENERAL OF UNCSTD

The United Nations has convened for 1979 a Conference on Science and Technology for Development.

I. Objectives of the Conference

The objectives are described in paragraph 2 of Economic and Social Council resolution 2028 (LXI) endorsed by General Assembly resolution 31/184, namely to:

"(a) Adopt concrete decisions on ways and means of applying science and technology in establishing a new international economic order, as a strategy aimed at economic and social development within a time frame;

(b) Strengthen the technological capacity of developing countries so as to enable them to apply science and technology to their own development;"

Resolution 2123 (LXIII) adopted by the Economic and Social Council and endorsed by the General Assembly at its last session emphasizes that the Conference and its preparatory should be aimed at, inter alia, the reinforcement of the independent scientific and technological capacity of developing countries, in particular by the development of technological innovation circuits, understood as denoting the continuous process of production, distribution and absorption of technologies.

"(c) Adopt effective means for the utilization of scientific and technological potentials in the solution of problems of development of national, regional and global significance, especially for the benefit of developing countries;" and

"(d) Provide instruments of co-operation to developing countries in the utilization of science and technology for solving socio-economic problems that cannot be solved by individual action, in accordance with national priorities".

II. General Characteristics of the Conference

The characteristics of the Conference on Science and Technology for development are the following:

1. New International Economic Order

General Assembly resolutions 3362 (S-VII) and 31/184 make it clear that the Conference should deal with the scientific and technical dimensions of a New International Economic Order.

Why should this subject be examined separately ? The reasons are many. First, when scientific and technical issues are dealt with in conjunction with others of immediate concern - such as energy, raw materials, investments, commerce, debts. etc. - they tend to be allocated to a position of lesser priority, which of course is quite improper. This is a situation similar to the one found in countries where one ministry is in charge of both education and cultural affairs: the problems of education are so urgent and immediate that cultural considerations, although of a fundamental structural importance, are often neglected.

Another reason for treating science and technology separately is that it is easier to identify common interests in these areas between developed and developing countries, and particularly among developing countries. Therefore, whatever their differences may be in relation to the immediate problems already enumerated, all developing countries continue to find themselves in a state of technical depdendence, which is in effect overall dependence. New approaches have emerged in connection with the New International Economic Order which are manifestly different from past United Nations activities; these are:

- to substitute fragmentary, isolated and discordant actions by a unified, integrated and systematic application of science and technology to development;

- to consider the role of science and technology in development not as an independent instrument of action but as a component of an overall system involving structural changes, both national and international, and truly global approaches;
- to insist particularly on the specificity and diversity of the development process, in accordance with the peculiarities of each country, not only in the economic but also in the political, social and cultural fields;
- to aim at the creation of indigenous technologies corresponding to original forms of development based on self-reliance and indigenous advancement;
- to call for international co-operation in research and development in exploration, exploitation, conservation and utilization of the finite resources of the earth.

2. Preparation at the governmental and intergovernmental level

The Conference and its preparation represent fundamentally a governmental and intergovernmental process in which an essential principle is respect for national sovereignty. In effect, scientific and technological choices depend on political, social and cultural options which States and States alone are in a position to determine.

It is important, however, that there should be the fullest involvement possible, not only of officials responsible for the planning of development, but also of the "producers" of science and technology (the scientific and technological communities), as well as of the users and promoters of science and technology, i.e. business corporations, investment institutions, consumers, labour unions, cultural and other groups that is to say, society in general.

Non-governmental organizations in particular should have a role in the preparation of national analyses. In other words, the widest participation possible should be obtained at the country level, under the aegis of the national organization in charge of preparation for the Conference. Creation of public awareness through the mass media is also important.

National involvement in the examination of problems of and solutions to the application of science and technology, quite independent of the Conference, is essential to bring about the necessary strengthening of existing national institutions and mechanisms for the co-ordination of relevant activities for the best utilizations of science and technology, and to promote objective reflection on the connected issues, towards national development objectives.

There is no doubt that the scientific community must play a cardinal role in these consultations, which might assume a "triangular" pattern (government-public-scientists).

3. Ascending process

Preparation for the Conference can be seen as an ascending process. It should lead to a progressive formulation of analyses and proposals regarding the specific points about which concern is felt at the national level, and then at the regional, inter-regional and global levels. In that sense, the Conference will differ from the "top-down" exercises in which principles and programmes are advanced by groups of experts, wise men or international secretariats. Although the results of those exercises did sometimes come up to expectations, they were not always related to the needs and interests of the countries and their political will, and consequently had little practical impact. It is therefore necessary that the Conference be built slowly, like a pyramid, linking science and technology with political will into one coherent structure.

4. Programme of work of the Conference

The main purpose of the Conference is not to discuss science and technology as such, but the whole complex of policy considerations concerned with the accelerated application of science and technology to development at the national level and with increased international co-operation. In

other words, it should not deal with the substantive side of science and technology but with the global problematique of the existing interrelationship between science, technology and development. It is a matter of overcoming obstacles that prevent the beneficial application of science and technology to development, not only for overall economic growth stricto sensu, not even for the satisfaction of basic human needs, but also in a larger context implying an holistic approach. (Utilization of valuable existing cultural patterns, preservation of human values, participation of people in shaping the basis of their own existence, capacity of autonomous goalsetting and decision making, quality of life, human rights, peace, etc.)

This global perspective does not exclude concrete approaches and suggestions. The Conference must be essentially a non-a-priori process, i.e. without any predetermined assumptions; ready-made formulae without full knowledge of particular problems are obviously an easy, but undesirable recipe. A concrete, objective study of the problems is the first prerequisite towards their eradication in both developed and in developing countries. A whole series of myths which have caused polarization and confrontation and have little if any real meaning should thus be overcome in the framework of the Conference.

5. Integrated process

The Conference is an integrated process in which the preparatory period must play a cardinal role. This period should be very carefully organized so that it will in itself provide a guarantee that the efforts made and expenditures on the Conference will not be lost, even if the Conference itself in the end achieves only modest results. Serious preparation is likely to ensure:

(a) A clearer awareness in the developing countries of the problems, as well as better co-ordination between the organs responsible for defining and implementing policies for the application of science and technology to development;

(b) Better understanding in the developed countries of the problems of science and technology in their own countries and in the developing countries.

(c) Reassurance with regard to the fears still prevailing among certain sectors in developed countries of the so-called adverse consequences for those countries of technological advances in the Third World. This should result from the abandonment of a single model of development, and the understanding that such advances - in the middle term - will be beneficial to all nations;

(d) Outlines of institutional arrangements and a harmonized globally integrated scientific and technological policy.

6. Involvement of all components of the United Nations system and other organizations

In effect, the United Nations system should play a major role in achieving the objectives of the Conference and in strengthening scientific and technological co-operation between all States in order to ensure the application of science and technology to development, as it is stressed in General Assembly resolution 3362 (S-VII).

> "Since the issues of development, environment and resource use are essentially global and concern the wellbeing of all mankind, governments should fully use the mechanisms of the United Nations for their resolution, and that, for its part, the United Nations system should be renewed and strengthened to be capable of shouldering its new responsibilities". 1/

The Conference is an operation which genuinely involves the whole system. Its unprecendented range is emphasized in resolution 1 (I) of the Preparatory Committee, which states that "the importance, scope

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1/ Cocoyoc Declaration, adopted by a symposium of eminent scientists, economists and United Nations officials (1974).

and almost universal character of the intergovernmental Conference necessitate linkage with virtually all the activities of the United Nations system itself and of governmental organizations not forming an integral part of the system". All organizations concerned have since made known their readiness to contribute to the Conference and its preparatory process.

ANNEX V

ECONOMIC COMMISSION FOR WESTERN ASIA

INTERVENTION OF MR. DACOSTA, SECRETARY-GENERAL, UNCSTD

Some substantive problems to be faced by the Conference and its preparatory process

I would like now, in my personal capacity, to try to identify some of the main substantive problems the Conference and its preparatory process are probably going to face, without trying to indicate possible solutions.

1. Globalism vs. differenciated approaches

The interdependence of nations and peoples seems to suggest a search for integrated solutions to the problems inherent in the application of science and technology to development. Problems of global import seem to call for universal solutions.

On the other hand, one can consider that science and technology have been historically associated with power and that they are the products of certain types of society (as well as vice-versa).

Developing countries can consider that the overall global objectives should be disaggregated in order to give specific attention to their development goals and strategies, such as:

- economic diversification from over-reliance on one product;
- strenghtening of indigenous capacity for autonomous decision-making;
- achievement of increased self-sufficiency in vital food needs;

- production of basic consumer goods at reduced cost to satisfy basic needs;
- creation of capacity for the local processing of natural resources;
- creation of capacity for the manufacture in developing countries of capital goods;
- mechanisms for the selection and adaptation of foreign technologies and development of indigenous mixes;
- mobilization and development of human resources, including groups not yet fully integrated into societies;
- application of research and development to traditional sectors of production;
- identification of the role of traditional technologies and the study of their integration into the development process;

(part of a list established by the Expert Group of Item 4 of Conference Agenda, "Science, Technology and the Future", to be reviewed in the light of national and regional papers).

2. The role of developed countries

The role of developed countries in the implementation of what we may call "the new scientific and technological order" can be envisaged under four main categories:

(a) contributing to build or reinforce the indigenous capacity of developing countries, through financial help, formation of human resources, information, etc.;

(b) using the potential of developed countries to provide solutions for the specific problems of developing countries (as a provisional substitute for indigenous capacities and for the solving of problems that, for their dimensions or complexity, transcend the possibilities of developing countries);

(c) helping to rectify the negative effects of the asymetrical complementarity between the economies of developed and developing countries, especially the existence of social dualism and the sterilization of science and technology in the developing countries;
(d) encouraging the almost inexisting "horizontal" relationship among developing countries, in order to reinforce them in terms of collective self-reliance, without excluding moves towards temporary withdrawal and dissociation with the aim to attain lesser dependency and better negociating power.

All those possible roles create major problems. The two first ones presuppose a clear and active participation of developing countries that, as we shall see in the next paragraph, are not easy to obtain. Thence the idea to "incorporate in the national policies" of developed countries certain goals aiming at the solution of problems of developing countries. One can easily fall again in the old policies of paternalistic assistance without any linkage to the real needs of developing countries, creating therefore very little results and phenomena of rejection.

The third and fourth possible roles imply internal reforms and adjustments in developed as well as in developing countries. It seems obvious to me that contrarily to the common view according to which they imply a slowing of the growth of the developed economies - the necessary shifts can only be absrobed and accepted in an environment of dynamism and accelerated growth in the developed as well as in the developing countries.

3. The definition of needs

One of the major vicious circles that faces the application of science and technology to development is the fact that developing countries, as a rule, are not equipped to define their own needs with precision. Without a very elaborate infrastructure, it is impossible to know the range of possibilities, select the useful technologies, evaluate the positive or negative impacts, imdicate the necessary adaptations, etc.

In such circumstances, who is going to make the choices? It would be unwise to let them to the "great international technological decisions", most suspicious by the very fact that nobody knows exactly who are the real decision-makers. Choice by the developed countries is both inadequate and suspicious, both for lack of knowledge and possible short-term interests. Advice by wise-men and international secretariats are not well received and have little impact. The only solution is to provide the developing countries themselves, on a more or less collective (sub-regional, regional, horizontal) basis, with the necessary capacity to make the choices.

4. The danger of new apriorisms

It is understood that everybody now recognises that the single model of development, in fashion after the war, is abandoned, as unattainable and undesirable. So as the simplist concept of "filling the gap", etc. Diversity in development styles is both a realistic and satisfactory conception, the only one to be the base of a new international division of labour in the technological field and the only source of possibility of arrangements in a medium-term perspective.

One should avoid, however, under the pretext that "man is the center of development", to adopt a new single model for developing countries, based on a new apriorism ("basic human needs" considered as an automatic and permanent low-levelling, " intermediate technologies", "Labour-intensive technologies", "decentralized technologies at the village level", etc.).

Such an apriorism seems to me of a particularly reactionary nature, because it is the very negation of development. It would freeze the existing pattern of developed/underdeveloped and prevent the necessary open, non-static and systematic approaches to development.

There are not ready-made formulae. Developing countries, according to the circumstances, the peculiarities of every sector and even unit of the productive system, should use the whole gaumut of possibilities, from the very elemental technologies to the most sophisticated, such as remote-sensing

or informatics. A basic need, such as education, can only, in certain countries, be satisfied through the means of communication satellites.

5. The role of fundamental research in developing countries

This problem is very important and controversial. It is not theoretical at all, because as soon as a developing country delineates a science and technology policy, it has to make choices and options in view to allocate, its meagre resources. In my view, developing countries should reserve a certain amount to fundamental research, independently of the urgent needs in most obvious sectors. such an allocation should serve six purposes: (a) the right of the individual to access to knowledge and to serve the global needs as distinct from immediate national goals; (b) to ensure a real continuum between fundamental research and practical applications, that are not always obvious; (c) to give the country a capacity to understand what is going on in developed centers of knowledge, thence to select and adapt technologies; (d) to create an environment favorable to creativity and innovation, indispensable to an indigenous capacity; (e) to ensure the existence of a critical mass of human resources (sometimes located aborad) for further development; (f) to avoid eternal dependency, because self-reliance implies a research capacity.

6. Science and culture

A final problem is the introduction in developing countries of science as a part of the national culture, without a corresponding loss of identity and specificity. The developing world wants to assimilate, not to be assimilated and wants to avoid being a conglomerate of "empty men with full hands". Here we transcend purely scientific and technical problems and reach a level where a critical reflexion about the acute problems that occur on the problematique of science at the service of man. The solution, of course, cannot be found in negatism or nihilism, a trend too common both in philosophy and society.

7. The role of the scientific community

Here again, the scientific community should play a major role in trying to solve the problems I tried to identify and many more. Men of science should contribute to find solutions in many ways: (a) making contributions in their respective fields of specialization when the challenges are susceptible of a scientific or technological solution; (b) bringing their objective and systematic ways of thinking in order to clarify issues that do not belong properly to the substance of science and technology but problems relating to the management and transfer of science and technology and those arising from political, institutional, economical, social and psychological obstacles; (c) to play the role of catalysers and informers in the indispensable dialogue with the governmental authorities and the public in general, with a clear consciousness of the social responsibilities of men of science, at all levels.