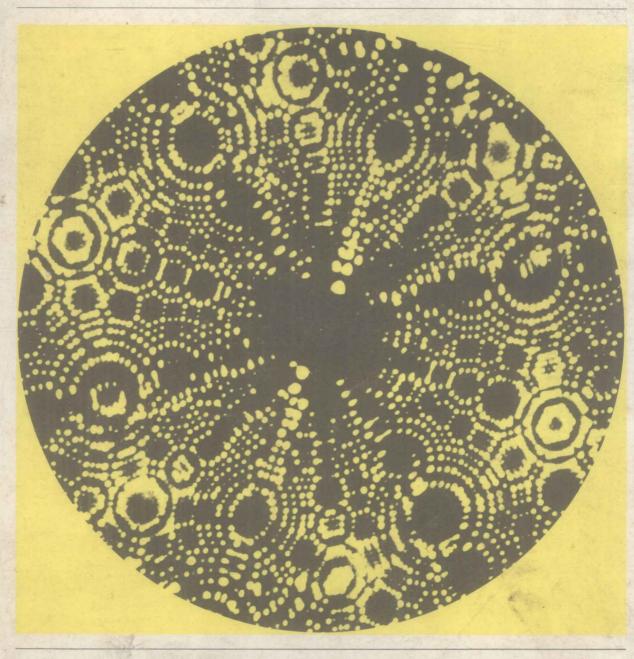
No. 41

# Science and Technology in the Development of the Arab States

Science policy studies and documents



- No. 1. La politique scientifique et l'organisation de la recherche scientifique en Belgique (Paris, 1965).
- Science policy and organization of scientific research in the Czechoslovak Socialist Republic (Paris, 1965).
- No. 3. National science policies in countries of South and South-East Asia (Paris, 1965).
- No. 4. Science policy and organization of research in Norway (Paris, 1966).
- No. 5. Principles and problems of national science policies (Paris, 1967). Principes et problèmes des politiques scientifiques nationales (Paris, 1967).
- No. 6. Structural and operational schemes of national science policy (Paris, 1967).
  Schémas structurels et opérationnels d'une politique scientifique nationale (Paris, 1967).
  Version arabe (Fez, 1967).
- No. 7. Science policy and organization of research in the USSR (Paris, 1967)
- Science policy and organization of scientific research in Japan (Paris, 1968).
- No. 9. Science policy and the organization of scientific research in the Socialist Federal Republic of Yugoslavia (Paris, 1968).
- No. 10. National science policies of the U.S.A. Origins, development and present status (Paris, 1968).
- No. 11. The promotion of scientific activity in tropical Africa (Paris, 1969).

  Déploiement de l'activité scientifique en Afrique intertropicale
  (Paris, 1969).
- No. 12. Science policy and organization of research in the Federal Republic of Germany (Paris, 1969).
- No. 13. Bilateral institutional links in science and technology (Paris, 1969), Les liens bilatéraux entre institutions dans le domaine de la science et de la technique (Paris, 1969).
- No. 14. La política científica en América Latina (Montevideo, 1969),
- No. 15. Manuel d'inventaire du potentiel scientifique et technique national (Paris, 1969).

  Manual for surveying national scientific and technological potential (Paris, 1969).

  Manual del inventario del potencial científico y técnico nacional (Montevideo, 1970).

  Пособие по инвентарному описанию научно-технического потенциала (Париж, 1970).
- No. 16. Proceedings of the symposium on science policy and biomedical research (Paris, 1969). Comptes rendus du colloque sur la politique scientifique et la recherche biomédicale (Paris, 1969).
- No. 17. Politiques scientifiques nationales en Europe/National science policies in Europe (Paris, 1970).
- No. 18. The rôle of science and technology in economic development Le rôle de la science et de la technologie dans le développement économique (Paris, 1970)
- No. 19. National science policy and organization of research in Israel (Paris, 1970).
- No. 20. Política científica y organización de la investigación científica en la Argentina (Montevideo, 1970).
- No. 21. National science policy and organization of research in Poland (Paris, 1970).
- No. 22. National science policy and organization of research in the Philippines (Paris, 1970).
- No. 23. La politique scientifique et l'organisation de la recherche scientifique en Hongrie (Paris, 1971)
- No. 24. La politique scientifique et l'organisation de la recherche en France (Paris, 1971)
- No. 25. Science policy and the European States (Paris, 1971) La politique scientifique et les Etats européens (Paris 1971)
- No. 26 International aspects of technological innovation (Paris, 1971)
  Les aspects internationaux de l'innovation technologique
  (Paris, 1971)
- No. 27 National science policy and organization of scientific research in India (Paris 1972)
- No. 28 Science policy research and teaching units/Unités de recherche et d'enseignement en politique scientifique (Paris, 1971)
- No. 29 La política científica en América Latina 2 (Montevideo, 1972)

- No. 30 European Scientific Co-operation : priorities and perspectives (Paris, 1972)
   La coopération scientifique européenne : priorités et perspectives (Paris, 1972)
- No. 31 National science policies in Africa Politiques scientifiques nationales en Afrique (Paris, 1974)
- No. 32 La politique scientifique et l'organisation de la recherche scientifique dans la République populaire de Bulgarie (Paris, 1974)
- No. 33 (I) Science and technology policies information exchange system (SPINES). Feasibility study (Paris, 1974).
- No. 33 (2) Provisional world list of periodicals dealing with science and technology policies (Paris, 1974).
- No. 34 Science policy and organization of research in Sweden (Paris, 1974).
- No. 35 Science and technology in African development (Paris, 1974).
  La science et la technologie au service du développement en Afrique (Paris, 1974).
- No. 36 La politique de la science et de la technologie en Roumanie (Paris, 1976)
- No. 37 La política científica en América Latina-3 (Montevideo, 1975)
- No. 38 National science and technology policies in the Arab States/Politiques scientifiques et technologiques nationales dans les Etats arabes (Paris, 1976)
- No. 39 SPINES Thesaurus, A controlled and structured vocabulary of science and technology for policy-making, management and development (Paris, 1976) (In 3 volumes, format 24x31 and 31x48 cm)
- No. 40 Method for priority determination in science and technology (to be published)

  Méthode de détermination des priorités dans le domaine de la science et de la technologie (à paraître)
- No. 41 Science and technology in the development of the Arab States (Paris, 1977)
  La science et la technologie dans le développement des Etats arabes (Paris, 1977)
  Version arabe (Paris, 1977)

# Science and Technology in the Development of the Arab States



#### **Preface**

The Conference of Ministers of Arab States Responsible for the Application of Science and Technology to Development (CASTARAB) was organized by Unesco with the co-operation of the Arab Educational, Cultural and Scientific Organization (ALECSO) and the Economic Commission for Western Asia (ECWA) and took place at Rabat, Morocco, from 16 to 25 August 1976. The first part of this publication consists of the Final Report

of the Conference, giving highlights of the debates and the texts of the Rabat Declaration and the recommendations adopted, together with organizational details. As part of the follow-up to CASTARAB it was recommended that Unesco should take appropriate steps to publish the Conference's main working document, (CASTARAB Recommendation No. 1), and accordingly it has been included here as the second part of this publication.

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## PART ONE

# **The Ministerial Conference**

(Final Report)

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#### Background

The Conference of Ministers of Arab States Responsible for the Application of Science and Technology to Development was held in Rabat (Morocco) from 16 to 25 August 1976. Organized by Unesco, with the co-operation of the Arab Educational, Cultural and Scientific Organization (ALECSO) and the Economic Commission for Western Asia (ECWA), the Conference was convened by the Director-General of Unesco in pursuance of resolution 2.121 adopted by the General Conference of Unesco at its eighteenth session. The composition of the Conference, which falls into category II of meetings organized by Unesco, was determined by the Executive Board at its 97th and 99th sessions.

#### 2. Attendance

The following countries were invited to send delegates: Algeria, Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Sudan, Syrian Arab Republic, Tunisia, United Arab Emirates, Yemen, Democratic Yemen. Several other Member States sent observers.

The agencies of the United Nations system and a number of intergovernmental and non-governmental organizations and foundations were invited to send representatives or observers.

The Conference was attended by 104 delegates representing 16 Arab States, 20 observers from 14 other Member States including Mauritania, 14 representatives or observers from 10 United Nations agencies and observers from 8 intergovernmental organizations, 5 international nongovernmental organizations and one foundation.

## 3. Purpose of the Conference

The main purpose of the Conference was to enable the participating Member States:

(i) to exchange information on:

the rôle of science and technology in government activity as a whole;

the formulation and management of their respective national policies for science and technology, including the transfer of technology; the organization and management of their scientific and technological research and experimental development (R&D) activities, as well as of their scientific and technological services (STS) and related institutions;

the planning, budgeting, implementation and assessment of their R&D programmes;

(ii) to examine, collectively and at ministerial level the possibility of taking governmental action, in certain restricted and carefully defined fields in order to strengthen those aspects of their national policies which lend themselves to closer international and regional co-operation in science and technology;

(iii) to decide on the most suitable measures to be taken for following up the recommendations of the CASTARAB Conference.

The above themes formed the subject of discussions under, successively, items 7, 8 and 9 of the agenda, the text of which appears as an annex of this report, together with a list of the Conference documents.

#### 4. Preparation of the Conference

In preparation for the Conference, a meeting of experts was held in Kuwait from 22 to 27 March 1975, in order to advise the Director-General on the following three subjects:

- (i) definition of the topics that should be discussed by the CASTARAB Conference, as a matter of priority;
- (ii) suggestions concerning the form and content of the main working document, as well as the reference documents which the Unesco Secretariat, with the co-operation of ALECSO and ECWA, were to prepare; and
- (iii) suggestions concerning the organization of the work of the Conference.

Subsequent to the Kuwait meeting, several sub-regional and regional consultations were held with experts from various Arab countries, in order to discuss some of the topics on the Conference agenda and to assist the Unesco Secretariat in the preparation of the main working document and reference documents. Three inter-Secretariat consultations were held between Unesco, ALECSO and ECWA in order to co-ordinate the preparation of these three organizations for the Conference.

Several United Nations agencies, as well as other intergovernmental or non-governmental organizations were consulted on selected aspects of the Conference agenda.

All 18 Arab States invited to participate in the Conference were visited several times during the preparatory period in order to keep the competent government authorities informed of the progress made in the Conference preparations and to collect additional information to be included in the Conference documents. These multiple consultations enabled the Secretariat of Unesco to identify some of the key problems which Arab countries are facing in applying science and technology to their socio-economic development, and to develop a number of carefully selected co-operative research projects upon which two or more Arab countries might embark.

## Opening of the Conference

The Conference opened on 16 August 1976 in Rabat (Morocco). His Excellency Mr. Abdellatif Ben Abdeljlil, Minister of Higher Education, delivered the opening address, on behalf of the Government of His Majesty King Hassan II. Mr. Amadou-Mahtar M'Bow, Director-General of Unesco, gave a welcoming address which, apart from some general reflections pertaining to the Conference deliberations, briefly introduced some salient features which the Conference was likely to discuss under the three major items of its agenda. Mr. Mohei-el-din Saber, Director-General of ALECSO, welcomed the participants on behalf of his organization. The three opening speeches are reproduced as Annex II.

Mr. Mustapha Tolba, Executive Director of the United Nations Environment Programme (UNEP) addressed the Conference during the first plenary on 16 August 1976 (Annex III).

The participants observed a one-minute silence in memory of H.E. Sheikh Jassim Bin Hamad Al Thani, former Minister of Education and Youth Welfare in Qatar, and decided to send a cable of condolence to His Highness the Prince of Qatar (Annex V).

During the opening and subsequent plenary meetings, the heads of all 16 delegations as well as observers from Mauritania and Yugoslavia, representatives of the United Nations Department of Economic and Social Affairs, UNIDO and ECWA, and observers from the Commission of the European Communities, the African Development Bank, the Arab Centre for the Studies of Arid Zones and Dry Lands (ACSAD), the Arab Fund for Economic and Social Development and the Catholic International Education Office delivered keynote addresses to the Conference which are summarized in Part II of this report.

#### Organization of the Conference

The Conference, at its first plenary meeting, elected His Excellency Mr. Abdellatif Ben Abdeljlil as President. After the adoption of the Rules of Procedure and the agenda, the Conference then agreed on the following composition of the organs of the Conference, the members of which were elected by acclamation:

Vice-President: All Heads of Delegations

Rapporteur-General:

Dr. Naji Abdul-Kadir

(Iraq)

Commission I:

Chairman:

Dr. Said Ramadan Haddara

(Egypt)

Vice-Chairmen: H. E. Dr. Seoud El Gammaz

(Saudi Arabia)

Dr. Omar Alsheikh Hussain (United Arab Emirates) (elected by the Commission)

Rapporteur:

Dr. R. Hamzaoui (Tunisia)

Commission II:

Chairman.

Eng. Issam Al-Khairy (Jordan)

Vice-Chairmen: Dr. Youssef El-Turky

(Saudi Arabia)

Eng. Abdul Rahman Ahmed

El Agib (Sudan)

(elected by the Commission)

Rapporteur:

Dr. Sulaiman M. Sulaiman

(Qatar)

The Conference first met in plenary on the afternoon of 16 August and the morning of 17 August for a general debate on the broad issues under consideration. Subsequently, from Tuesday afternoon, 17 August, until Saturday, 21 August, the two Commissions of the Conference met in order to examine in detail the substantive items on the agenda and to prepare draft recommendations.

### Commission I:

Agenda item 7 -Science and technology policies in the Arab States: present

situation and future prospects

Measures to be taken to Agenda item 9 follow up the decisions of the

CASTARAB Conference

#### Commission II:

Agenda item 8 - Projects of regional cooperation in scientific and

technological research

The two Commissions adopted their reports and draft recommendations, which were subsequently submitted to and examined by the Conference in plenary meetings between 23 and 25 August 1976.

The Bureau of the Conference, which was composed of the President, Vice-Presidents and Rapporteur-General of the Conference and the Presidents of the two Commissions, held three meetings.

#### 7. Conference documents

The main working document of the Conference was entitled "Science and technology in the development of the Arab States" (SC-76/CASTARAB/3). The Conference also had before it, as a reference document, the Unesco publication entitled "National science and technology policies in the Arab States" (No. 38 in the series "Science policy studies and documents"). Furthermore, a series of ten reference documents were provided to the participants, giving additional information on individual sub-items of the agenda. The complete list of Conference documents may be found in Annex VIII.

#### 8. Closing of the Conference

At its final plenary meeting on 25 August 1976, the Conference adopted the "Rabat Declaration", the report of the Conference having already been adopted on 23 and 24 August in the three working languages of the Conference (Arabic, English and French).

The head of the Egyptian delegation moved a vote of thanks to the Government of Morocco and the organizations which had been responsible for the preparation of the Conference. The motion, which was supported by the heads of several delegations and subsequently adopted by acclamation, may be found in Annex VI. The Conference then heard the closing addresses delivered by Mr. Mohammed El Kassas, Assistant Director-General for Science, ALECSO; Mr. Amadou-Mahtar M'Bow, Director-General of Unesco and H.E. Mr. Abdellatif Ben Abdeljil, Minister of Higher Education, Morocco. The texts of these addresses are included in Annex VI of this report.

The head of the Sudanese delegation, on behalf of all delegations to the Conference, then read a message to His Majesty King Hassan II, which may be found in Annex VII.