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ABSTRACT

As the second part of the report of the Programme Commission II, a summary of recommendations on plans for natural sciences and their applications is presented in this document. Resolutions and budgetary appropriations are two major concerns in the document. The topics are related to the 1973-74 draft program and budget, the 1973-78 draft medium-term outline, and the international instrument on the status of scientific research workers. Included are two copies, respectively, of the statutes of the Steering Committee of the World Science Information System (UNISIST) and of the Board for the International Geological Correlation Programme. (CC)

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General Conference
Seventeenth session, Paris 1972

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17 C/96
Annex - Recommendations
14 November 1972

REPORT OF PROGRAMME COMMISSION II
(NATURAL SCIENCES)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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ANNEX - RECOMMENDATIONS

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Item 13.3 - Detailed consideration of the Draft Programme and Budget for 1973-1974 and of the Draft Medium-Term Outline Plan 1973-1978
Part II - Programme Operations and Services

CHAPTER 2 - NATURAL SCIENCES AND THEIR APPLICATION TO DEVELOPMENT

Introduction

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

1. The Commission recommended that the General Conference take note of the Introduction to Chapter 2, contained in paragraphs 2002-2012 of document 17 C/5, on the understanding that it will be modified to include a more detailed presentation of the programme in Hydrology.
2. The Commission recommended, by 42 votes in favour, none against and 9 abstentions, that the General Conference approve the Regular Programme budget of \$14,850,225 for Chapter 2, as set out in paragraph 2001 of document 17 C/5.
3. The Commission recommended, by 52 votes in favour, 2 against and 10 abstentions, that the General Conference adopt the following resolution:

The General Conference,

Mindful of resolution 2768 (XXVI) of the United Nations General Assembly, requesting international organizations within the United Nations system to give priority to the special needs of the 25 countries identified at the Second Ministerial Meeting of the Group of 77 in Lima, in 1971, when formulating their programmes or activities, or selecting the projects they finance,

Agreeing that Unesco act according to this request of the United Nations,

Realizing the desirability of encouraging, as a matter of urgency, the development of science and technology in all developing countries, particularly in these 25 named least developed nations,

Convinced that without a viable scientific and technological development these countries cannot make any worth while and lasting economic progress,

Recommends to the Director-General

to give priority attention to the needs and requests of the 25 named least developed nations in the field of science and technology.

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Annex - Recommendations

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

4. The Commission recommended that the General Conference take note of the Introduction (paragraphs 2002-2017) and of the budgetary implications (paragraph 2001) of Chapter 2 - Natural Sciences and their Application to Development in document 17 C/4.

SUB-CHAPTER 2.1 - SCIENCE POLICY AND PROMOTION OF SCIENTIFIC CO-OPERATION

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

5. The Commission recommended that the General Conference take note of the provisions for Directing staff of the Department of Science Policy and Promotion of Scientific Co-operation, as set out in paragraphs 2101-2103 of document 17 C/5.
6. The Commission recommended, by 52 votes in favour, none against and 8 abstentions, that the General Conference approve the Regular Programme budget of \$3,159,065 for Sub-Chapter 2.1 of the Draft Programme and Budget for 1973-1974 (paragraph 2013 of document 17 C/5).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

7. The Commission recommended, by 49 votes in favour, none against and 7 abstentions, that the General Conference adopt the following recommendation:

2.1 The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:

2.11

- (a) to study the implications of science and technology for the life of man and human societies and for international relations from the point of view of development, social change and international justice;
- (b) to promote the public understanding of science and its relationship to society, in co-operation with National Commissions for Unesco and with national bodies concerned with science policy; and
- (c) to continue the publication of the journal "Impact of Science on Society".

2.12

- (a) to strengthen national science policy, programming and financing in the Member States, in particular:
 - (i) by promoting appropriate international and regional co-operation;
 - (ii) by providing assistance to Member States in science policy-making, upon their request;

- (iii) by identifying the needs and resources of developing Member States with regard to science and technology;
- (iv) by conducting research on science policy;
- (b) to maintain the necessary relations with non-governmental organizations for the furtherance of Unesco's programme in science and technology.

2.13

to implement the UNISIST programme for the stepwise establishment of a flexible network of information services and systems based on voluntary co-operation and, in particular:

- (a) to advance compatibility between information systems and to work towards the improvement of the tools of their interconnexion;
- (b) to improve the performance of the institutional components of the information transfer chain;
- (c) to assist in the development of specialized information manpower;
- (d) to encourage the development of scientific information policies and national networks;
- (e) to assist Member States, especially developing countries, in the creation of infrastructures in the field of scientific information.

8. The Commission recommended that the General Conference take note of the budgetary implications of Sub-Chapter 2.1 of the Draft Medium-Term Outline Plan for 1973-1978, as set out in paragraph 2018 of document 17 C/4.

Section 2.11 - Science in the 1970s: The Human Implications of Scientific Advance

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

9. The Commission recommended unanimously that the General Conference adopt the following resolution:

2.11 The Director-General is authorized:

- (a) to study the implications of science and technology for the life of man and human societies and for international relations from the point of view of development, social change and international justice;

- (b) to improve the public understanding of science and its relationship to society, in co-operation with National Commissions for Unesco and with national bodies concerned with science policy;
- (c) to continue publication of the quarterly "Impact of Science on Society"; and
- (d) to publish "Science in the 70s", a study of current trends in scientific research.

10. The Commission recommended by 24 votes in favour, none against and 28 abstentions that the General Conference adopt the following resolution:

The General Conference,

Considering that in paragraph 2006 of Chapter 2 in document 17 C/4, the Director-General states that "Science is under attack from many quarters", and that the technologies springing from these sciences have caused "a high degree of social alienation and an increasingly problematic future for man", and that "students are increasingly favouring arts courses in preference to science",

Taking into account that science itself cannot be blamed for the loss of prestige implicit in the Director-General's logical and rational analysis referred to in the foregoing considerandum, since such charges arise from concrete situations endured by a portion of mankind through the anti-scientific application of advanced technologies,

Aware of the need to take intelligent action to raise the prestige of science and keep it within ethical limits capable of restoring mankind's confidence in it,

Draws attention to the undesirability of the misuse of science by society and invites the Director-General to examine any actions which may be taken to prevent such misuse and to report on the results of his examination to the General Conference at its eighteenth session.

11. The Commission recommended that the General Conference take note of the Work Plan for Section 2.11 of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2016-2031), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

12. The Commission recommended by 31 votes in favour, 7 against and 5 abstentions, that the General Conference approve the Regular Programme budget of \$426,680, for Section 2.11 (document 17 C/5, paragraph 2014).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

13. The Commission recommended, by 40 votes in favour, none against and 2 abstentions, that the General Conference adopt the following recommendation:

- 2.11 The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:
- (a) to study the implications of science and technology for the life of man and human societies and for international relations from the point of view of development, social change and international justice;
 - (b) to promote the public understanding of science and its relationship to society in co-operation with National Commissions for Unesco and with national bodies concerned with science policy; and
 - (c) to continue the publication of the journal "Impact of Science on Society".

14. The Commission recommended that the General Conference take note of the texts contained in Section 2.11 and the budgetary implications in paragraph 2020 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4).

Section 2.12 - Science Policy Programming and Financing

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

15. The Commission recommended by 51 votes in favour, none against and 6 abstentions, that the General Conference adopt the following resolution:

2.12.1 The Director-General is authorized:

I

In respect of the development of national science policies in Member States within the framework of their social, economic and cultural policies:

- (a) to promote international and regional co-operation relating to policy-making in the field of science and technology, and to convene in 1973 a conference of ministers in African Member States responsible for the application of science and technology to development (CASTAFRICA);
- (b) to assist Member States in establishing and strengthening their science policy-making bodies, in drawing up short- and long-term plans for science and technology, and in strengthening the organization of their national research and development systems;
- (c) to help Member States, upon request, in the assessment of their needs and resources as regards scientific and technological development and, within the framework of their national priorities, to assist in the formulation of projects which require external financing or capital support;
- (d) to undertake, in collaboration with other governmental organizations active in this field, research and experimental activities in support of the objectives described in this resolution;
- (e) to assist interested Member States in working out joint projects in those spheres of the sciences where such co-operation is of substantial mutual advantage to them with a view to implementing the recommendations of the Conference of Ministers of European Member States responsible for Science Policy (MINESPOL, 1970) and in keeping with the recommendations of the Meeting of Experts on the Science Policies of European Member States (Budapest, 1972);

and

II

In respect of co-operation with international non-governmental organizations:

- (f) to collaborate with international non-governmental organizations concerned with science and technology with a view to fostering co-ordination of their activities, and to provide the International Council of Scientific Unions with a subvention in 1973-1974 not exceeding \$530,000 and services, as appropriate, for the furtherance of Unesco's objectives in the field of natural sciences.

16. The Commission recommended that the General Conference take note of the Work Plan for Section 2.12 of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2034-2061), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

17. The Commission recommended, by 58 votes in favour, none against and one abstention, that the General Conference approve the total budget of \$1,749,395 for Section 2.12, as set out in paragraph 2032 of document 17 C/5.

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

18. The Commission recommended by 49 votes in favour, none against and 7 abstentions, that the General Conference adopt the following recommendation, the text of which appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2019):

2.1 The General Conference recommends the following to the Director-General for guidance in preparation of future plans and programmes:

2.12

- (a) to strengthen national science policy, programming and financing in the Member States, in particular:
 - (i) by promoting appropriate international regional co-operation;
 - (ii) by providing assistance to Member States in science policy-making, upon their request;
 - (iii) by identifying the needs and resources of developing Member States with regard to science and technology;
 - (iv) by conducting research on science policy;
- (b) to maintain the necessary relations with non-governmental organizations for the furtherance of Unesco's programme in science and technology.

19. The Commission recommended that the General Conference take note of the texts and budgetary implications of Section 2.12, as contained in paragraphs 2033-2059 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4), on the understanding that paragraph 2041 will be amended in accordance with the recommendation of the Commission recorded in the narrative and explanatory part of this report.

Section 2.13 - Scientific and Technical Information

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

20. The Commission recommended unanimously that the General Conference adopt the following resolution as it appears in the Draft Programme and Budget for 1973-1974 (17 C/5) with the exception of operative paragraph 4, which for formal reasons would fall to be examined at a later date by the General Conference in plenary session:

2.13 The General Conference,

Recalling resolution 2.141 adopted at its sixteenth session,

Bearing in mind the resolution of the Intergovernmental Conference for the Establishment of a World Science Information System (UNISIST), held in October 1971,

Having taken note of the report of the Director-General (17 C/63) on this Conference and the proposals made therein,

Considering that there is pressing need for co-ordinated and sustained international action to facilitate transfer of scientific and technical information for the economic and social development of nations,

1. Decides to launch a long-term international programme on transfer of scientific and technical information, to be known as the UNISIST Programme with the following objectives:

to advance and co-ordinate the world trends towards information-sharing and co-operative agreements among governments, international organizations and operating information services;

to provide guidance and catalytic action for the necessary developments in the field of scientific and technical information;

to facilitate the access to published information by scientists, engineers and technologists;

to help the developing countries meet their needs for scientific and technical information; and

to take the necessary actions for the establishment of a flexible world network of information systems and services based on voluntary co-operation;

2. Wishes this Programme to be carried out through the co-operation of Member States and in collaboration with the other organizations of the United Nations concerned, as well as with the competent inter-governmental and non-governmental organizations;
3. Establishes a UNISIST Steering Committee, in accordance with the Statutes annexed to the present resolution, for guiding and supervising the planning and execution of the Programme;
4. Selects, in accordance with Article II of the Statutes, the following Member States to be members of the Steering Committee in 1973-1974:

.....
.....
.....
5. Authorizes the Director-General to establish an advisory committee to advise him on the planning and execution of the Programme, with particular reference to progress made and the Programme's ability to meet the needs of the world's communities of scientists, engineers and technologists;
6. Authorizes the Director-General, in the framework of the UNISIST Programme:
 - (a) to undertake activities for improvement of the tools of systems interconnexion;
 - (b) to provide assistance for strengthening the functions and improving the performance of the institutional components of the information transfer chain;
 - (c) to help in development of the specialized manpower essential for the planning and operation of information networks, especially in the developing countries;
 - (d) to encourage the development of scientific information policies and national networks; and
 - (e) to assist Member States, especially the developing countries, in the creation and development of their infrastructure in the field of scientific and technical information.

✓

APPENDIX TO RESOLUTION 2.13

STATUTES OF THE UNISIST STEERING COMMITTEE

ARTICLE 1

1. A UNISIST Steering Committee, hereafter called the Steering Committee, is hereby established within the United Nations Educational, Scientific and Cultural Organization.

ARTICLE 2

1. The Steering Committee shall be composed of eighteen Member States of the United Nations Educational, Scientific and Cultural Organization, elected for two years by the General Conference at each of its ordinary sessions, taking due account of equitable geographical distribution, of the need to ensure appropriate rotation, of the representativeness of the States from the scientific and technical viewpoint in the various continents and of the importance of their contribution to the UNISIST Programme.
2. Members of the Steering Committee shall be immediately eligible for re-election.
3. The Steering Committee may make recommendations concerning its own membership to the General Conference.
4. The persons appointed by Member States as their representatives on the Steering Committee shall preferably be experts in the field covered by the UNISIST Programme and chosen from among those persons who are playing a major part in the implementation of the activities related to the Programme in the said Member States.

ARTICLE 3

1. The Steering Committee shall normally meet in plenary session once every two years. Extraordinary sessions may be convened under conditions specified in the Rules of Procedure.
2. Each member on the Steering Committee shall have one vote, but it may send as many experts or advisers as it deems necessary to sessions of the Steering Committee.
3. The Steering Committee shall adopt its own Rules of Procedure.

ARTICLE 4

1. The Steering Committee shall be responsible for guiding and supervising the planning and the implementation of the UNISIST Programme; for studying proposals concerning developments and modifications of this Programme; for assessing priorities among the various projects of the Programme and, when necessary, making recommendations to the General Conference on the revision of these priorities within the framework of the Medium-Term Outline Plan of action approved by the General Conference; for reviewing the results achieved and defining the basic areas requiring international co-operation; for assisting in the co-ordination or international co-operation of Member States in the framework of the Programme, and for making recommendations on the future UNISIST Programme and budget to be presented to the General Conference.
2. In carrying out its functions, the Steering Committee shall, whenever necessary, attempt to take into account other international programmes in scientific and technical information.

ARTICLE 5

1. The Steering Committee may set up ad hoc committees for the study of specific problems related to its activities, as described in paragraph 1 of Article 4. Membership of such ad hoc committees shall also be open to Member States of Unesco which are not represented in the Steering Committee.
2. The Steering Committee may delegate to any such ad hoc committee the powers that it may need in regard to the programme for which it has been set up.

ARTICLE 6

1. At the beginning of its first session, the Steering Committee shall elect a chairman and three vice-chairmen; these shall form the Steering Committee's Bureau.
2. The Bureau shall discharge such duties as the Steering Committee may lay upon it.
3. Meetings of the Bureau may be convened in between meetings of the Steering Committee at the request of the Committee itself, of the Director-General of Unesco or of any one member of the said Bureau.
4. The Steering Committee shall elect a new Bureau whenever its own membership is changed by the General Conference in accordance with Article 2 above.

ARTICLE 7

1. Member States and Associate Members of Unesco which are not members of the Steering Committee may attend meetings of the Committee and of its ad hoc committees as observers.
2. Representatives of the United Nations and other organizations of the United Nations system may take part, without the right to vote, in all meetings of the Steering Committee and of its ad hoc committees.
3. The chairman of any advisory committee established by the Director-General for the UNISIST Programme may take part, without the right of vote, in all meetings of the Steering Committee and of its ad hoc committees.
4. Representatives of the International Council of Scientific Unions may take part, without the right to vote, in all meetings of the Steering Committee and its ad hoc committees.
5. The Steering Committee shall determine the conditions under which other international governmental or non-governmental organizations shall be invited to attend its meetings without the right to vote.

ARTICLE 8

1. The Secretariat of the Steering Committee shall be provided by the Director-General of Unesco, who shall place at the Steering Committee's disposal the staff and other means required for its operation.
2. The Secretariat shall provide the necessary services for the session of the Steering Committee and meetings of its Bureau and ad hoc committees.
3. The Secretariat shall take any day-to-day measures required in order to co-ordinate the execution of the UNISIST Programme; it shall fix the date of the Steering Committee's sessions in accordance with the Bureau's instructions, and shall take all steps required to convene such sessions.
4. The Secretariat shall assemble all suggestions and comments made by Member States of Unesco and the international organizations concerned, with regard to the UNISIST Programme as a whole and the formulation of specific projects, and shall prepare them for examination by the Steering Committee.

ARTICLE 9

1. Member States shall bear the expense of participation of their representatives in sessions of the Steering Committee and subsidiary organs. The running expenses of the Steering Committee and its subsidiary organs shall be financed from funds appropriated for this purpose by the General Conference of the United Nations Educational, Scientific and Cultural Organization.
2. Voluntary contributions may be accepted and established as trust funds in accordance with the Financial Regulations of the United Nations Educational, Scientific and Cultural Organization and administered by the Director-General of that Organization. The Steering Committee shall make recommendations to the Director-General on the allocation of such contributions for international projects under the Programme.

ARTICLE 10

1. The Steering Committee shall submit reports on its activities to the General Conference of the United Nations Educational, Scientific and Cultural Organization at each of its ordinary sessions.

21. The Commission recommended that the General Conference take note of the Work Plan for Section 2.13 of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2064-2100), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.
22. By 72 votes in favour, none against and 2 abstentions, the Commission decided to recommend that the General Conference approve the Regular Programme budget of \$889,625 for Section 2.13 (17 C/5), paragraph 2062.
- B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)
23. The Commission unanimously recommended that the General Conference adopt the following recommendation, the text of which appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2019):

2.13 The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:

to implement the UNISIST Programme for the stepwise establishment of a flexible network of information services and systems based on voluntary co-operation and, in particular:

- (a) to advance compatibility between information systems and to work towards the improvement of the tools of their interconnexion;
- (b) to improve the performance of the institutional components of the information transfer chain;
- (c) to assist in the development of specialized information manpower;
- (d) to encourage the development of scientific information policies and national networks;
- (e) to assist Member States, especially developing countries, in the creation of infrastructures in the field of scientific information.

24. The Commission recommended that the General Conference take note of the texts contained in Section 2.13 and the budgetary implications in paragraph 2060 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4).

SUB-CHAPTER 2.2 - SCIENTIFIC AND TECHNOLOGICAL RESEARCH AND HIGHER EDUCATION

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

25. The Commission recommended that the General Conference take note of the provisions for Directing staff of the Department of Scientific and Technological Research and Higher Education, contained in paragraphs 2193-2196 of document 17 C/5.

26. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$3,837,645 for Sub-Chapter 2.2 of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraph 2104).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

27. The Commission recommended unanimously that the General Conference adopt the following recommendation, whose text appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2096).

2.2 The Director-General is authorized:

2.21

(a) to promote the advancement of the basic sciences within the framework of the World Plan of Action for the Application of Science and Technology to Development adopted by the United Nations Economic and Social Council at its 51st session:

- (i) by strengthening the international and regional co-operation in the field of the basic sciences;
- (ii) by promoting research in life sciences and in particular in cell biology, applied microbiology and multidisciplinary brain research;
- (iii) by assisting Member States in developing and expanding facilities for fundamental research and post-graduate training, upon their request;

(b) To stimulate the development of basic science education at university level,

- (i) by collecting, analysing and disseminating information;
- (ii) by promoting innovations and development in university science education;
- (iii) by assisting Member States in strengthening and developing their institutions of higher education in basic sciences.

2.22

to strengthen research, education and training in technological fields in Member States, in co-operation with other United Nations agencies and non-governmental organizations:

- (a) (i) by promoting the development of the engineering sciences research; including the identification of priority areas and the dissemination of information;
- (ii) by assisting Member States, upon their request, in strengthening institutions concerned with engineering sciences and research;
- (b) (i) by stimulating through international and regional co-operation, activities directed towards the reform and development of the education and training of engineers;
- (ii) by assisting Member States, upon request, in the development of engineering education institutions and professional bodies, in accordance with their needs;
- (c) (i) by promoting the development of training programmes of technologists and higher technicians based on the assessment of needs;
- (ii) by assisting Member States, upon request, in the development of appropriate institutions for the training of technologists and higher technicians.

28. The Commission recommended that the General Conference take note of the budgetary implications of Sub-Chapter 2.2 of the Draft Medium-Term Outline Plan for 1973-1978, as set out in paragraph 2095 of document 17 C/4.

Section 2.21 → Scientific Research and Higher Education

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

29. The Commission recommended unanimously and by acclamation that the General Conference adopt the following resolution:

The General Conference,

Stressing the exceptional importance of the discoveries of the Polish astronomer whose work heralded a new era in the understanding of the universe and influenced the development of human thought,

Noting with satisfaction the steps taken by the Director-General, in conformity with the resolution adopted by the Executive Board at its 88th session, to organize in Paris a ceremony of homage to Copernicus on 19 February 1973, the 500th anniversary of his birth, and to provide for participation by Unesco in the international symposium on the subject of "Man and Space" to be held at Toruń, the birthplace of Copernicus,

Invites Member States, National Commissions and the international non-governmental organizations concerned to celebrate the anniversary of this great scientist by paying tribute to him and to expand international scientific co-operation, particularly in the fields of space research and its utilization for the benefit of humanity as a whole, in a spirit of peace and progress.

30. The Commission recommended unanimously that the General Conference adopt the following resolution:

2.21 The Director-General is authorized:

- (a) to promote research and advanced training in the basic sciences, with special emphasis on the need of developing countries, in particular:
 - (i) by supporting international and regional research institutions in the field of the basic sciences, including the computer sciences, and by co-operating with national institutions for post-graduate training;
 - (ii) by furthering research in cell biology, multidisciplinary brain research and applied microbiology;
 - (iii) by assisting Member States, on their request, in the creation and development of their institutions and facilities for scientific research and training;
- (b) to further the development of basic science education at university level, in particular:

- (i) by collecting, analysing and disseminating ideas and information on the development of university science education;
 - (ii) by promoting innovations and development in university science education; and
 - (iii) by assisting Member States in the planning and programming of science education in universities;
- (c) to give increased support to the Intergovernmental Bureau for Informatics (IBI-ICC) so that it will be able to arrange for the developing countries to have wider access to computer techniques and to offer them the necessary assistance for the training of highly qualified specialists.

31. The Commission recommended that the General Conference take note of the Work Plan for Section 2.21 of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2107-2151), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.
32. The Commission recommended, by 50 votes in favour, none against and two abstentions, that the General Conference approve the Regular Programme budget of \$1,786,335 for Section 2.21 (document 17 C/5, paragraph 2105).
- B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)
33. The Commission recommended unanimously that the General Conference adopt the following recommendation, the text of which appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2096).

The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:

2.21

- (a) to promote the advancement of the basic sciences within the framework of the World Plan of Action for the Application of Science and Technology to Development adopted by the United Nations Economic and Social Council at its 51st session:
- (i) by strengthening the international and regional co-operation in the field of the basic sciences;
 - (ii) by promoting research in life sciences and in particular in cell biology, applied microbiology and multidisciplinary brain research;

- (iii) by assisting Member States in developing and expanding facilities for fundamental research and post-graduate training, upon their request;
- (b) to stimulate the development of basic science education at university level:
 - (i) by collecting, analysing and disseminating information;
 - (ii) by promoting innovations and development in university science education;
 - (iii) by assisting Member States in strengthening and developing their institutions of higher education in basic sciences.

34. The Commission recommended that the General Conference take note of the texts contained in Section 2.21 and the budgetary implications in paragraph 2097 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4).

Section 2.22 - Technological Research and Higher Education

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

35. The Commission recommended unanimously that the General Conference adopt the following resolution:

2.22 The Director-General is authorized:

- (a) to promote research in selected fields of applied and engineering sciences which contribute to the solution of major problems of society and to the welfare of mankind by removing some of the hindrances to industrial, economic and social progress, in particular:
 - (i) by fostering international co-operation in selected break-through fields which will permit the development of pollution-free sources of energy, an increase in production through better materials, the avoidance of losses due to wear and friction in machines, the improvement of communication systems; and
 - (ii) by assisting Member States in the creation or development of research institutions in the applied sciences;
- (b) to promote engineering education, in particular:

- (i) by stimulating the reform and development of engineering education to meet the needs of society, with the co-operation of engineering organizations, through the study of structures, levels, contents and methods of initial and continuing engineering education, and the formulation of acceptable basic standards; and
 - (ii) by assisting Member States, upon request, in the creation or development of engineering education institutions and professional bodies in accordance with their needs;
- (c) to encourage development of the education of technologists and higher technicians, in particular:
- (i) by assessing the needs, by undertaking comparative studies on structures, programmes and methods, and by developing exchange of information in this field; and
 - (ii) by assisting Member States, upon request, in taking the necessary measures for improving the education of technologists and higher technicians.

36. The Commission recommended that the General Conference take note of the Work Plan for Section 2.22 of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2154-2192), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

37. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$1,955,335 for Section 2.22 (document 17 C/5, paragraph 2152).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

38. The Commission recommended unanimously that the General Conference adopt the following recommendation, the text of which appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2096).

2.22 The General Conference recommends the following to the Director-General for guidance in preparation of future plans and programmes:

To strengthen research, education and training in Member States, in co-operation with other United Nations agencies and non-governmental organizations,

- (a) (i) by promoting the development of the engineering sciences research, including the identification of priority areas and the dissemination of information;
- (ii) by assisting Member States, upon their request, in strengthening institutions concerned with engineering sciences and research;
- (b) (i) by stimulating through international co-operation, activities directed towards the reform and development of the education and training of engineers;
- (ii) by assisting Member States, upon request, in the development of engineering education institutions and professional bodies, in accordance with their needs;
- (c) (i) by promoting the development of training programmes of technologists and higher technicians based on the assessment of needs;
- (ii) by assisting Member States, upon request, in the development of appropriate institutions for the training of technologists and higher technicians.

39. The Commission recommended that the General Conference take note of the texts contained in Section 2.22 and the budgetary implications in paragraph 2115 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4).

SUB-CHAPTER 2.3 - ENVIRONMENTAL SCIENCES AND NATURAL RESOURCES RESEARCH

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

40. The Commission recommended that the General Conference take note of the provisions for Directing staff of the Department of Environmental Sciences and Natural Resources Research, contained in paragraphs 2392-2394 of document 17 C/5.

41. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$5,469,865 for Sub-Chapter 2.3 of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraph 2197).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

42. The Commission recommended unanimously that the General Conference adopt the following recommendation:

2.3 The General Conference recommends to the Director General:

2.31

(a) to develop the scientific basis for the rational use and conservation of the resources of the biosphere, for the improvement of the global relationship between man and the environment including a better forecasting of the consequences of today's action on tomorrow's world and for a greater coherence of environmental research and to this end with due reference to the conclusions and recommendations of the United Nations Conference on the Human Environment (Stockholm 1972);

(i) to assist, along the lines defined by the International Coordinating Council, in the planning and implementation of the Man and the Biosphere programme launched by resolution 2.313 adopted by the General Conference at its sixteenth session (1970), as a part of an inter-sectoral effort dealing with man and the environment;

(ii) to promote integrated natural resources research, ecology and the rational use and conservation of the non-oceanic environment by stimulating the improvement of multidisciplinary methodologies, by collecting and disseminating information, by providing training of specialists and by assisting Member States in the development of their research and training facilities in these fields;

- (b) (i) to assist, in co-operation with the International Union of Geological Sciences, and along the lines defined by the Board of the IGCP, in the planning and implementation of the International Geological Correlation Programme (IGCP) submitted to the seventeenth session of the General Conference (1972);
- (ii) to promote the study of the earth sciences for a better exploitation of mineral and energy resources and for improvement in the protection against natural hazards, in particular by ensuring the preparation of maps and the synthesis of knowledge in the earth sciences, by collecting and disseminating information by providing training of specialists and by assisting Member States in the development of their research and training facilities in these fields.

2.32

to promote the development of hydrology as a scientific basis for the rational use of water resources, and to this end:

- (a) to take appropriate measures, in co-operation with the Co-ordinating Council, to complete the International Hydrological Decade launched by resolution 2.222 adopted by the General Conference at its thirteenth session (1964);
- (b) to take appropriate measures for the implementation, beginning in 1975, in full co-operation with those other organizations of the United Nations system whose competence relates to hydrology, of a long-term programme of intergovernmental co-operation in hydrology - the International Hydrological Programme - which will be co-ordinated by an intergovernmental council and which is intended to improve the study of the hydrological cycle and the scientific methodology for the assessment of water resources, to promote education and training in hydrology, and to contribute, within the competence of Unesco, to the general development of hydrological activities throughout the world;
- (c) to promote the advancement of hydrological research in order to provide a scientific basis for the rational use of water resources, and to contribute, in conjunction with the other environmental programmes of Unesco, especially the Man and Biosphere Programme to the conservation of the quality of the environment;
- (d) to encourage the dissemination of information on major scientific results in the field of hydrology;

- (e) to assist Member States in the planning and implementation of national and regional hydrological programmes and in the training of hydrologists.

2.33

to foster the advancement of marine sciences by assisting Member States and promoting their co-operation at the regional and international levels and to this end:

- (a) to assist, in co-operation with the organizations of the United Nations system concerned, and with other competent international intergovernmental and non-governmental organizations, the Inter-governmental Oceanographic Commission established by resolution 2.31 adopted by the General Conference at its eleventh session (1960), and to contribute to the planning, co-ordination and implementation of a Long-Term and Expanded Programme of Oceanic Exploration and Research;
- (b) to promote the general advancement of marine science and to this end:
 - (i) to promote fundamental marine research projects including those related to the effects of man on the environment and to environmental conservation;
 - (ii) to facilitate exchange of information on marine science;
 - (iii) to promote regional and international co-operation in the field of marine science through the development of research, collection and data centres, particularly in developing countries;
 - (iv) to assist Member States and particularly the developing countries in the training of specialized personnel.

43. The Commission recommended that the General Conference take note of the budgetary implications of Sub-Chapter 2.3 of the Draft Medium-Term Outline Plan for 1973-1978, as set out in paragraph 2143 of document 17 C/4.

Section 2.31 - I - The Ecological Sciences

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

44. The Commission recommended unanimously that the General Conference adopt the following resolution, it being understood that paragraph 6 would subsequently be completed in Plenary:

2.311: The General Conference,

Recalling resolution 2.313 adopted at its sixteenth session, by which it launched a long-term intergovernmental and interdisciplinary programme on Man and the Biosphere (MAB) and established an International Co-ordinating Council responsible for planning and implementing the programme,

Having considered the report of the first session of the Co-ordinating Council (17 C/64) and the report of the Director-General formulated in the light of the results of the United Nations Conference on the Human Environment (Stockholm, June 1972) (17 C/65),

Reaffirms the general objectives and guiding principles set forth therein for the programme;

Recognizes the high scientific value of investigations of pollution of the environment and its influence upon the biosphere, and also of research into the long-term effect of human economic activities on the energy resources of the biosphere;

Invites the International Co-ordinating Council of MAB to consider, and if it regards it as appropriate to examine methods for implementing this research and to present proposals to the eighteenth General Conference of Unesco:

Elects, in accordance with Article II (1) of the Statutes, the following Member States to be members of the International Co-ordinating Council in 1973-1974:

.....,,,,,,,,

Authorizes the Director-General

- (a) to provide Secretariat services for the International Co-ordinating Council of the programme on Man and the Biosphere;
- (b) to assist in the implementation of the scientific projects included in the programme, in particular by organizing the meetings of the working groups and of the panels of experts set up by the Co-ordinating Council, and by disseminating data, methodological principles and information concerning these projects and their implementation;

- (c) to assist national committees for the Man and the Biosphere programme, and to promote regional co-operation within the framework of the programme; and
- (d) to co-operate in the execution of the programme with other competent international governmental and non-governmental organizations.

45. The Commission recommended that the General Conference take note of the Work Plan for Part A of Section 2.31/I of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2202-2228), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

46. The Commission recommended unanimously that the General Conference adopt the following resolution:

2.312: The Director-General is authorized, in collaboration with the other organizations of the United Nations concerned and other appropriate international scientific organizations:

- (a) to promote an integrated approach in environmental and natural resources research by stimulating the improvement of multi-disciplinary methodology and by collecting and disseminating information;
- (b) to collect, exchange and disseminate information concerning ecology and the rational use and conservation of the non-oceanic environment;
- (c) to provide training for specialists in integrated natural resources research and survey and in ecology and related fields, especially those of the developing countries;
- (d) to co-operate with the International Union for the Conservation of Nature and Natural Resources and grant it a subvention not exceeding \$20,000 in 1973-1974; and
- (e) to assist Member States in the planning and organization of research, and the training of specialists required for the integrated study, rational use and conservation of their natural resources.

47. The Commission recommended that the General Conference take note of the Work Plan for Part B of Section 2.31/I of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2230-2271), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

48. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$864,950 for Part I of Section 2.31 (paragraph 2200 of document 17 C/5).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

49. The Commission recommended unanimously that the General Conference adopt the following recommendation, the text of which appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2144).

2.3 The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:

2.31

- (a) to develop the scientific basis for the rational use and conservation of the resources of the biosphere, for the improvement of the global relationship between man and the environment including a better forecasting of the consequences of today's action on tomorrow's world and for a greater coherence of environmental research and to this end with due reference to the conclusions and recommendations of the United Nations Conference on the Human Environment (Stockholm, 1972);
 - (i) to assist, along the lines defined by the International Coordinating Council, in the planning and implementation of the Man and the Biosphere programme launched by resolution 2.313 adopted by the General Conference at its sixteenth session (1970), as a part of an inter-sectoral effort dealing with man and the environment;
 - (ii) to promote integrated natural resources research, ecology and the rational use and conservation of the non-oceanic environment by stimulating the improvement of multidisciplinary methodologies, by collecting and disseminating information, by providing training of specialists and by assisting Member States in the development of their research and training facilities in these fields.

Section 2.31 - II - The Earth Sciences

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

50. The Commission recommended by 30 votes in favour, non against and 24 abstentions, that the General Conference adopt the following resolution:

2.313 The General Conference,

Having received the report of the Director-General on the Intergovernmental Conference of Experts for the preparation of an International Geological Correlation Programme held in October 1971 and its recommendations (document 17 C/66);

Recalling resolution 2.321 adopted at its sixteenth session (1970);

Considering that there is a pressing need for international action concerning the scientific aspects of a rising demand for minerals of all kinds and for energy sources such as fossil fuels, minerals for nuclear power, and geothermal power;

Considering that geological and related sciences must develop general principles for analysis and understanding of regional phenomena which may have their clearest expression in widely distant parts of the globe, and that geological correlation may lead to an evaluation of study methods and principles and, taken in a broad sense, may provide an important means for locating new resources and expanding those which are already known;

Stressing the importance of training specialists and technicians in this field, particularly in developing countries in order to accelerate their participation in scientific and economic progress;

1. Decides to launch a long-term interdisciplinary International Geological Correlation Programme as a co-operative venture with the International Union of Geological Sciences;
2. Approves the objectives and general content of the proposed programme as outlined in the report of the Intergovernmental Conference of Experts (and accepts the main lines of the procedures for the co-ordination and implementation of IGCP as described in that report (document SC/MD/28));
3. Invites Member States to establish national committees for ensuring their full participation in the programme;

4. Resolves that in accordance with the statutes annexed to the present resolution, a Board will be established to supervise and co-ordinate the implementation of the programme, study proposals concerning its development, recommend projects of interest to member countries, and organize international co-operation within its framework;
5. Requests the Board, in defining the initial content of the programme, to take into consideration the proposals made by the Intergovernmental Conference of Experts, together with the views which the Member States may submit thereon;
6. Authorizes the Director-General to appoint the members of the Board jointly with the President of the International Union of Geological Sciences, on the basis of their scientific competence and according to an equitable geographical distribution;
7. Authorizes the Director-General:
 - (a) to provide the staff and services required by the international organs and mechanisms of the programme, in particular the Board, the scientific committee and project working groups;
 - (b) to assist in the implementation of the international scientific projects included in the programme; and
 - (c) to promote and assist regional co-operation and national activities related to the programme.
8. Specifies that activities herein ascribed to IGCP in no way replace or preclude the carrying out of other IUGS or Unesco programmes in the field of geology.

APPENDIX

Statutes of the Board for the International Geological Correlation Programme

Article 1

1. A Board is hereby set up for the International Geological Correlation Programme, hereafter referred to as the "IGCP".

Article 2

- 2.1 The Board shall be composed of fifteen members appointed by mutual agreement by the Director-General of Unesco and the President of the International Union of Geological Sciences (IUGS) and of the two ex officio members referred to in paragraph 2.6 below.
- 2.2 Members appointed to the Board shall be persons actively engaged in scientific research related to the objectives of the IGCP, taking into account an equitable geographical distribution. They shall serve in a private capacity.
- 2.3 Appointed members of the Board shall be appointed for a term of two years. Taking into account both the need for continuity and the need for rotation of membership, appointed members shall be eligible for re-appointment for further terms of two years but shall not serve continuously for more than six years.
- 2.4 In case of death or resignation of an appointed member, he may be replaced for the remainder of his term in accordance with the procedure defined in paragraphs 2.1 and 2.2 above.
- 2.5 Each appointed member shall have one vote.
- 2.6 The Director-General of Unesco and the Secretary-General of the IUGS or their representatives shall be ex officio members of the Board without the right to vote.

Article 3

- 3.1 The Board shall meet at least once a year at the invitation of Unesco and the IUGS.
- 3.2 Observers of interested international scientific organizations may be invited to attend sessions of the Board in accordance with the regulations and rules in force in Unesco and in the IUGS.
- 3.3 Representatives of the Scientific Committees referred to in Article 6 below may also attend sessions of the Board in accordance with arrangements to be made by Unesco and the IUGS.
- 3.4 Member States of Unesco and adhering bodies of the IUGS may send observers to sessions of the Board.

- 3.5 Representatives of the United Nations and organizations of the United Nations system may attend the sessions of the Board. Other intergovernmental organizations may be invited by Unesco and the IUGS to send observers to meetings of the Board.
- 3.6 Representatives and observers referred to in paragraphs 3.2 to 3.5 above shall not have the right to vote.

Article 4

- 4.1 At its first session the Board shall elect from among its members a Chairman and two Vice-Chairmen. These shall form the Board's Bureau.
- 4.2 The Board shall elect a new Bureau at each of its sessions following renewal of its membership, in accordance with Article 2, paragraphs 2.1 and 2.3. Members of the Bureau shall be eligible for re-election.
- 4.3 The Board's Bureau may be convened between the Board's sessions by Unesco and the IUGS.
- 4.4 The Board shall adopt its own rules of procedure.

Article 5

- 5.1 The Board shall be responsible for supervising, from the organizational and from the scientific points of view, the implementation of IGCP, for studying proposals concerning developments and modifications of the programme, for recommending scientific projects of interest to IGCP member countries, for co-ordinating international co-operation in the framework of IGCP, for assisting in the development of national and regional projects related to IGCP and for recommending any measures that may be required for the successful implementation of the programme.
- 5.2 The Board may suggest changes in the policy, scope or organization of IGCP, to the Director-General of Unesco and the President of IUGS for their consideration..
- 5.3 In carrying out its activities, the Board may make full use of the facilities offered by Unesco, IUGS, other international organizations, governments and foundations.
- 5.4 The Board may consult on scientific questions all appropriate international or national governmental or non-governmental scientific organizations and, in particular, the International Council of Scientific Unions (ICSU).

- 5.5 The Board shall, whenever possible, co-ordinate IGCP with other related international scientific programmes.

Article 6

- 6.1 The Board shall be assisted in its scientific duties by Scientific Committees established for this purpose jointly by Unesco and IUGS on the recommendation of the Board.
- 6.2 The functions of the Scientific Committees shall be to evaluate project proposals in terms of their scientific merit, their financial needs, their economic interest and their appropriateness to the general scope of the programme, and to make recommendations concerning them to the Board. The Board shall define the terms of reference of each Scientific Committee.
- 6.3 The Board may assign to its own Bureau certain duties such as the approval of reconsidered and modified IGCP project proposals or the approval of the annual progress reports of IGCP project working groups or the approval of revised final reports of IGCP projects.

Article 7

- 7.1 A Secretariat for the programme shall be provided at Unesco Headquarters by Unesco and by IUGS, if the latter so desires, and shall furnish the necessary services for all sessions of the Board and of its Bureau.
- 7.2 The Secretariat shall take the steps required for the convening of the sessions of the Board.

Article 8

8. The Board shall prepare a report on the progress of IGCP for each session of the General Conference of Unesco and shall report annually to the Executive Committee of IUGS.

51. The Commission recommended by 47 votes in favour, none against and 3 abstentions, that the General Conference adopt the following resolution as it appears in the Draft Programme and Budget for 1973-1974 (document 17 C/5):

2.314 The Director-General is authorized to stimulate research and training and to foster synthesis of knowledge in the earth sciences and the related natural hazards, and in particular:

- (a) to promote scientific studies of geological, geomorphological, geochemical and geophysical problems relating to the exploration of mineral resources and the preparation and publication of small-scale earth sciences maps;
- (b) to promote research in geophysical phenomena underlying natural hazards and scientific studies aimed at the more accurate location, prediction and assessment of natural hazards related to the earth sciences, and at the elaboration of effective means of protection; and
- (c) to encourage and assist Member States in research and in training specialists and technicians for the above-mentioned objectives.

52. The Commission recommended that the General Conference take note of the Work Plans for Section 2.31/II of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2274-2281 and 2283-2309), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in their implementation.

53. The Commission recommended that the General Conference take note of the staff provisions for Section 2.31 contained in paragraph 2310-2312 of document 17 C/5.

54. The Commission recommended by 45 votes in favour, none against and 3 abstentions, that the General Conference approve the Regular Programme budget of \$724,675 for Part II of Section 2.31 (document 17 C/5, paragraph 2272).

55. The Commission recommended by 42 votes in favour, none against and 7 abstentions, that the General Conference approve the Regular Programme budget of \$2,610,375 for Section 2.31 (document 17 C/5, paragraph 2198).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

56. The Commission recommended by 45 votes in favour, none against and 2 abstentions, that the General Conference adopt the following recommendation, the text of which appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2144).

2.31 The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:

- (b) (i) to assist, in co-operation with the International Union of Geological Sciences, and along the lines defined by the Board of the IGCP, in the planning and implementation of the International Geological Correlation Programme (IGCP) submitted to the seventeenth session of the General Conference (1972);
- (ii) to promote the study of the earth sciences for a better exploitation of mineral and energy resources and for improvement in the protection against natural hazards, in particular by ensuring the preparation of maps and the synthesis of knowledge in the earth sciences, by collecting and disseminating information by providing training of specialists and by assisting Member States in the development of their research and training facilities in these fields.

57. The Commission recommended that the General Conference take note of the texts contained in Section 2.31 and the budgetary implications in paragraph 2145 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4).

Section 2.32 - Hydrology

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

I. The International Hydrological Decade

58. The Commission recommended by 64 votes in favour, none against and 1 abstention, that the General Conference adopt resolution 2.321, as it appears in the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraph 2316), noting that the second paragraph of the resolution will be dealt with through the Nominations Committee and brought up before the Plenary. The delegate of New Zealand explained his vote.

2.321 The General Conference,

Recalling resolution 2.2222 adopted at its thirteenth session, by which it established the Co-ordinating Council of the International Hydrological Decade as well as the Statutes of the Council, and resolution 2.333 adopted at its sixteenth session, by which it amended the Statutes;

Selects, in accordance with the provisions of Article 2 of the Statutes, the following Member States to be members of the Co-ordinating Council of the International Hydrological Decade in 1973-1974:

.....
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.....
.....

59. The Commission recommended unanimously that the General Conference adopt resolution 2.322 as it appears in the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraph 2317).

2.322 The Director-General is authorized to take appropriate measures for continuation and finalization of the International Hydrological Decade and in particular:

- (a) to continue to provide secretariat services for the Co-ordinating Council of the Decade;

- (b) to assist in implementing the scientific projects included in the international programme of the Decade, by organizing meetings of the working groups and panels set up by the Council;
- (c) to take appropriate measures for publication and dissemination of the main scientific and practical results of the Decade;
- (d) to assist national committees for the Decade in developing regional co-operation; and
- (e) to strengthen Unesco's co-operation with other international governmental and non-governmental organizations, as part of the Decade programme.

60. The Commission recommended that the General Conference take note of the Work Plan for Section 2.32/I of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2318-2324), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

61. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$256,255 for Part I of Section 2.32 (document 17 C/5, paragraph 2315).

II. Preparation of a long-term programme of international co-operation in the field of hydrology

62. The Commission recommended unanimously that the General Conference adopt the following resolution:

2.323 The General Conference,

Recalling resolution 2.335, adopted at its sixteenth session, on the preparation of a long-term programme in hydrology;

Bearing in mind the recommendations of the Co-ordinating Council of the International Hydrological Decade adopted at its seventh session (17 C/67);

Having received the report of the Director-General (17 C/68) on the long-term programme in hydrology, and

Approving the objectives and the general tenor of the long-term programme in the field of hydrology prepared by the Co-ordinating Council of the International Hydrological Decade in accordance with a decision of the

General Conference, as well as the comments by the Director-General on this programme set out in document 17 C/68;

Approving the proposals made by the Director-General in that same document concerning the machinery to ensure its implementation:

1. Decides to launch in 1975 a long-term intergovernmental programme in the field of hydrology, to be known as the International Hydrological Programme. This programme, focused on the scientific and educational aspects of hydrology, will have the following main objectives:
 - to provide a scientific framework for the general development of hydrological activities;
 - to improve the study of the hydrological cycle and the scientific methodology for the assessment of water resources throughout the world, thus contributing to their rational use;
 - to evaluate the influence of man's activities on the water cycle, considered in relation to environmental conditions as a whole;
 - to promote the exchange of information on hydrological research and on new developments in hydrology;
 - to promote education and training in hydrology;
 - to assist Member States in the organization and development of their national hydrologic activities.
2. Stresses the need to give priority in the execution of the Programme to the applications of basic scientific knowledge acquired during the International Hydrological Decade, and of the results of subsequent research, taking into particular account those applications which are most closely linked with the problems of the natural regions of the globe in which the developing countries are situated;
3. Wishes that this programme be carried out in full co-operation with all organizations of the United Nations system whose sphere of competence relates to hydrology, with due regard to the views of the Administrative Committee on Co-ordination, as well as in close co-operation with the competent international non-governmental organizations;
4. Emphasizes that at all times every effort should be made to correlate the International Hydrological Programme with the other environmental programmes of Unesco, especially with the Man and the Biosphere programme;

5. Establishes an Intergovernmental Council of the International Hydrological Programme composed of representatives of no more than thirty Member States selected by the General Conference of Unesco taking due account of equitable geographical distribution, responsible, within Unesco's field of competence, for planning this programme, defining its priorities, supervising its execution and making any necessary proposals for co-ordinating this programme with those conducted by all the international organizations concerned;
6. Requests the Director-General to prepare the statutes of the above-mentioned Intergovernmental Council, with due regard to the proposals of the Co-ordinating Council of the International Hydrological Decade, for submission to the General Conference at its eighteenth session;
7. Invites all Member States to participate in the programme according to their interests and possibilities and recommends that they establish permanent National Committees relevant to the Programme. Existing National Committees for the International Hydrological Decade should be used as a basis for the formation of the new committees. Wherever possible it is recommended that the National Committees be entrusted with the general co-ordination of hydrological activities at national level, including participation in various international programmes in hydrology;
8. Authorizes the Director-General:
 - (a) to convene in 1974 jointly with the World Meteorological Organization and in collaboration with other interested organizations of the United Nations system an international conference to review the main results of the International Hydrological Decade and to prepare an outline plan for the implementation of the International Hydrological Programme for the period 1975-1980 to be submitted to the General Conference at its eighteenth session, as well as a draft plan concerning the activities of the WMO in the field of operational hydrology for the same period;
 - (b) to make necessary arrangements with competent international governmental and non-governmental organizations for their active participation in the International Hydrological Programme;
 - (c) to assist Member States in the preparation of their national plans relating to the International Hydrological Programme.

63. The Commission recommended that the General Conference take note of the Work Plan for Section 2.32/II of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2327-2329), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

64. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$32,955 for Part II of Section 2.32 (document 17 C/5, paragraph 2325).

III. Promotion of the general advancement of hydrology

65. The Commission recommended unanimously that the General Conference adopt the following resolution as it appears in the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraph 2331):

2.324 Member States are invited:

- (a) to take all the necessary steps to extend hydrological research, paying particular attention to strengthening hydrological services responsible for the systematic study of surface water and groundwater; and to collect information on, and give advance warning of, floods and other dangerous hydrological phenomena; and
- (b) to develop regional co-operation in the field of hydrology.

66. The Commission recommended by 65 votes in favour, 1 against and 1 abstention, that the General Conference adopt the following resolution:

2.325 The Director-General is authorized:

- () to stimulate and encourage hydrological research, in particular by promoting the use of modern methodology and techniques, and the collection and dissemination of information in this field; and
- (b) to assist Member States in preparing, developing and executing their hydrological research programmes, as well as in the training of hydrologists and hydrological technicians.

67. The Commission recommended that the General Conference take note of the Work Plan for Section 2.32/III of the Draft Programme and budget for 1973-1974 (document 17 C/5, paragraphs 2333-2354), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

68. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$247,795 for Part III of Section 2.32 (document 17 C/5, paragraph 2330).

69. The Commission recommended that the General Conference take note of the staff provisions for Section 2.32 contained in paragraphs 2355-2356 of the document 17 C/5.

70. The Commission recommended unanimously that the General Conference approve the overall Regular Programme budget of \$968,235 for Section 2.32 (document 17 C/5, paragraph 2313).

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

71. The Commission recommended unanimously that the General Conference adopt the following recommendation:

2.32 The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:

To promote the development of hydrology as a scientific basis for the rational use of water resources, and to this end:

- (a) to take appropriate measures, in co-operation with the Coordinating Council, to complete the International Hydrological Decade launched by resolution 2.222 adopted by the General Conference at its thirteenth session (1964);
- (b) to take appropriate measures for the implementation, beginning in 1975, in full co-operation with those other organizations of the United Nations system whose competence relates to hydrology, of a long-term programme of intergovernmental co-operation in hydrology - the International Hydrological Programme - which will be co-ordinated by an intergovernmental council and which is intended to improve the study of the hydrological cycle and the scientific methodology for the assessment of water resources, to promote education and training in hydrology, and to contribute, within the competence of Unesco, to the general development of hydrological activities throughout the world;

- (c) to promote the advancement of hydrological research in order to provide a scientific basis for the rational use of water resources, and to contribute, in conjunction with the other environmental programmes of Unesco, especially the Man and the Biosphere Programme to the conservation of the quality of the environment;
- (d) to encourage the dissemination of information on major scientific results in the field of hydrology;
- (e) to assist Member States in the planning and implementation of national and regional hydrological programmes and in the training of hydrologists.

72. The Commission recommended that the General Conference take note of the texts contained in Section 2.32 and the budgetary implications in paragraph 2166 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4), on the understanding that the texts would be amended in accordance with the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report.

Section 2.33 - Oceanography

I. Intergovernmental Oceanographic Commission

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

73. The Commission recommended by 45 votes in favour, none against and 5 abstentions that the General Conference adopt the following resolution:

2.331: The Director-General is authorized to support the activities of the Intergovernmental Oceanographic Commission:

- (a) by providing secretariat services for the Commission and for its subsidiary bodies;
- (b) by publishing the results of the scientific activities of the Commission;
- (c) by assisting in the co-ordination of the co-operative investigations of the Commission;
- (d) by assisting in the development of the Integrated Global Ocean Station System - with particular attention to the legal aspects relating to Ocean Data Acquisition Systems Aids and Devices - and by arrangements for oceanographic data exchange and management;
- (e) by promoting the participation of Member States in the programme of the Commission through mutual assistance and special training activities;
- (f) by assisting action undertaken jointly by the Commission and other interested organizations as regards the planning and implementation of the Long-Term and Expanded Programme of Oceanic Exploration and Research, especially the Global Investigation of Pollution in the Marine Environment (GIPME); and
- (g) by taking all possible measures, to strengthen and increase support to the IOC for pollution research monitoring.

74. The Commission recommended that the General Conference take note of the Work Plan for Section 2.33/I of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2360-2371), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

75. The Commission recommended by 48 votes in favour, 1 against and 1 abstention, that the General Conference approve the Regular Programme budget of \$991,100 for Part I of Section 2.33 (document 17 C/5, paragraph 2558). The delegates of the United Kingdom and the United States of America explained their votes.

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

76. The Commission recommended unanimously that the General Conference adopt the following recommendation, the text of which appears in the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4, paragraph 2144).

2.33: The General Conference recommends to the Director-General:

- (a) to assist, in co-operation with the organizations of the United Nations system concerned, and with other competent international intergovernmental and non-governmental organizations, the Intergovernmental Oceanographic Commission established by resolution 2.31 adopted by the General Conference at its eleventh session (1969), and to contribute to the planning, co-ordination and implementation of a Long-Term and Expanded Programme of Oceanic Exploration and Research;

11. Promotion of the general advancement of marine science

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

77. The Commission recommended by 53 votes in favour, none against and 5 abstentions that the General Conference adopt the following resolution:

2.332: The Director-General is authorized, in collaboration with the competent international governmental and non-governmental organizations, and with the United Nations' agencies concerned, to promote the general advancement of marine science:

- (a) by providing support for fundamental research programmes and research programmes on topics related to marine resources, marine pollution and to monitoring of the marine environment, including the development of new methodologies and the intercalibration of instrumentation;
- (b) by assisting Member States, especially the developing States, in the training of marine scientists;

- (c) by timely disseminating information and promoting the exchange thereof, emphasizing the programmes sponsored by the United Nations and its Specialized Agencies, and especially programmes for training of marine scientists; and
- (d) by facilitating regional and inter-regional co-operation in marine science.

78. The Commission recommended that the General Conference take note of the Work Plan for Section 2.33/II of the Draft Programme and Budget for 1973-1974 (document 17 C/5, paragraphs 2374-2391), on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in its implementation.

79. The Commission recommended by 66 votes in favour, none against and 1 abstention, that the General Conference approve the Regular Programme budget of \$865,180 for Part II of Section 2.33 (document 17 C/5, paragraph 2372).

80. The Commission recommended by 64 votes in favour, 1 against and 2 abstentions, that the General Conference approve the Regular Programme budget of \$1,796,370 for Section 2.33 (document 17 C/5, paragraph 2357). The delegate of the United States of America explained his vote.

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

81. The Commission recommended by 46 votes in favour, none against and 2 abstentions that the General Conference adopt the following recommendation:

2.33: The General Conference recommends the following to the Director-General for guidance in the preparation of future plans and programmes:

- (b) to promote the general advancement of marine science and to this end:
 - (i) to promote fundamental marine research projects including those related to the effects of man on the environment and to environmental conservation;
 - (ii) to facilitate exchange of information on marine science;
 - (iii) to promote regional and international co-operation in the field of marine science through the development of research, collection and data centres, particularly in developing countries;

(iv) to assist Member States and particularly the developing countries in the training of specialized personnel.

82. The Commission recommended that the General Conference take note of the texts contained in Section 2.33 and the budgetary implications in paragraph 2186 of the Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4), on the understanding that the texts will **be** amended in accordance with the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report.

Field Science Offices

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

83. The Commission recommended, unanimously, that the General Conference adopt the following resolution:

2.4 The General Conference

1. Having regard to the major projects to be launched by Unesco during the coming biennia 1973-1978, viz the UNISIST, Man and the Biosphere, I.G.C.P., Hydrology and Oceanography programmes, and the rôle the Regional Science Offices have to play in the implementation of these major programmes in the countries of these regions,
2. Having considered the report of the Executive Board approving the gradual decentralization of the activities of the Organization and hence the strengthening of the Field Science Offices,
3. Requests the Executive Board to carry out a study directed to achieve these goals by reviewing the functions and structure of the existing Regional Science Offices and of the liaison unit with ECAFE at Bangkok, and also the possibility of creating new Field Science Offices,
4. Invites the Director-General to take the results of this study into consideration while formulating document 18 C/5.

84. The Commission recommended that the General Conference take note of paragraphs 2396-2400 of the Draft Programme and Budget for 1973-1974 (document 17 C/5) referring to Field Science Offices, on the understanding that the relevant recommendations of the Commission recorded in the narrative and explanatory part of this report will be taken into account in their implementation.

85. The Commission recommended, by 51 votes in favour, none against and 3 abstentions, that the General Conference approve the Regular Programme budget of \$1,511,235 for Field Science Offices, as set out in paragraph 2395 of document 17 C/5.

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

86. The Commission recommended that the General Conference take note of the texts and budgetary indications relating to Field Science Offices, contained in paragraphs 2209-2212 of the Draft Medium-Term Outline Plan for 1973-1978 (17 C/4).

Office of the Assistant Director-General

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

87. The Commission recommended that the General Conference take note of paragraphs 2402-2405 of the Draft Programme and Budget for 1973-1974 (document 17 C/5), referring to the Office of the Assistant Director-General for Science.

88. The Commission recommended unanimously that the General Conference approve the Regular Programme budget of \$872,415 for the Office of the Assistant Director-General as set out in paragraph 2401 of document 17 C/5.

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

89. The Commission recommended that the General Conference take note of the text and budgetary indications contained in paragraphs 2213-2214 of the Draft Medium-Term Outline Plan for 1973-1978 (17 C/5).

Résumés

A. Draft Programme and Budget for 1973-1974 (document 17 C/5)

90. The Commission recommended that the General Conference take note of the established posts and of the budget summary for the Regular Programme for 1973-1974, as set out in paragraph 2406-2414 of document 17 C/5, on the understanding that they may be modified in the light of the recommendations made by the Commission with regard to the Programme.

B. Draft Medium-Term Outline Plan for 1973-1978 (document 17 C/4)

91. The Commission recommended that the General Conference take note of the Summary of Budgetary Estimates concerning the whole of Chapter 2, contained in paragraph 2215 of the Draft Medium-Term Outline Plan for 1973-1978 (17 C/4).

Item 26 - Desirability of adopting an international instrument on the status of scientific research workers

92. The Commission recommended by 43 votes in favour, none against, and one abstention, that the General Conference adopt the following resolution:

The General Conference,

Having regard to the provisions of the Rules of Procedure concerning Recommendations to Member States and International Conventions covered by the terms of Article IV, paragraph 4, of the Constitution,

Having considered the preliminary study by the Director-General concerning the desirability of adopting an international instrument on the status of scientific research workers (document 17 C/21),

1. Deems it desirable that an international instrument be drawn up on the status of scientific research workers;
2. Decides that the international instrument shall take the form of a recommendation to Member States within the meaning of Article IV, paragraph 4, of the Constitution;
3. Authorizes the Director-General to convene the special committee provided for in Article 10, paragraph 4, of the aforesaid Rules of Procedure to prepare a draft recommendation on the subject for submission to the General Conference at its eighteenth session.