

MEMORANDUM OF UNDERSTANDING BETWEEN  
THE WORLD METEOROLOGICAL ORGANIZATION  
THE INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION OF THE  
UNITED NATIONS EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION  
THE INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS AND  
THE UNITED NATIONS ENVIRONMENT PROGRAMME

The WMO, the IOC of UNESCO, the ICSU and the UNEP,

NOTING:

- (1) The recommendation, embodied in paragraphs 5 to 8 of Section C in the statement of the Second World Climate Conference, concerning the creation of a Global Climate Observing System;
- (2) Resolution XVI-8 of the sixteenth session of the IOC Assembly, to undertake the development of a Global Ocean Observing System and participate in the Global Climate Observing System;
- (3) Resolution 9 (Cg-XI) of the eleventh World Meteorological Congress, to establish a Global Climate Observing System;
- (4) Resolution 21 (Cg-XI) on the relationship between the Global Ocean Observing System and the Global Climate Observing System.
- (5) The decision of the sixtieth meeting of the ICSU Executive Board that ICSU should join WMO and IOC of UNESCO in the formation of the Global Climate Observing System.
- (6) The decision of the sixteenth session of the UNEP Governing Council that UNEP should support, within available resources, the creation of a Global Climate Observing System and assist in ensuring that its development and implementation are pursued with urgency.

RECOGNIZING the need to acquire comprehensive information on the properties and evolution of the earth's climate system, for detecting climate change, supporting climatological applications for economic development, and developing climate system science and predictions,

CONSIDERING that the required information will encompass data from operational meteorological, hydrological, oceanographic and other relevant programmes, as well as observations from research programmes conducted by scientific institutions and space agencies.

AGREE:

- (1) To co-operate in organizing a Global Climate Observing System (GCOS), based on the co-ordination of existing or planned operational and research programmes for observing the global climate system, and the further development of these programmes as required to ensure continuity of observations;
- (2) That the GCOS shall have, as its long-range objectives, to support all aspects of the World Climate Programme and relevant aspects of other climate-related global programmes, specifically to meet the data needs for climate system monitoring, and for use in assessing the impacts of climate variability and change and applications to national economic development, as well as research leading to improved understanding, modelling and prediction of the climate system;

(3) To consult and call upon other relevant national and international agencies, institutions and organizations, to collaborate in the organization and participate in the implementation of the GCOS;

(4) To establish a Joint Scientific and Technical Committee (JSTC), to provide scientific and technical guidance for the organization and further development of the GCOS, and a Joint Planning Office;

(5) To support, through appropriate administrative and financial arrangements, the activities of the JSTC for GCOS and its planning staff.

AGREE FURTHER that the Joint Scientific and Technical Committee shall be regarded by the sponsoring organizations as the main scientific and technical body for formulating the overall concept and scope of the GCOS and advising on the further development of the GCOS.

APPROVE the procedures to be followed in implementing this Memorandum of Understanding which are specified in the following Annexes:

ANNEX A: Concept of the Global Climate Observing System;

ANNEX B: Terms of reference, structure and functions of the Joint Scientific and Technical Committee (JSTC) and supporting staff;

ANNEX C: Financial arrangements.

AGREE that this Memorandum of Understanding shall be reviewed every four years by the sponsoring organizations, and may be called for review at any time by one of the sponsoring organizations.

AGREE that other organizations and agencies, which contribute to the implementation of the GCOS and wish to join in the sponsorship of the GCOS, may become a party to this Memorandum of Understanding, with appropriate administrative and financial arrangements.

AGREE that this Memorandum of Understanding shall come into force on signature by all four parties.

Secretary-General  
WMO

Secretary  
IOC

Secretary-General  
ICSU

Executive Director  
UNEP

Place: GENEVA.....

Place: Paris.....

Place: Paris.....

Place: Geneva.....

Date: 5/2/92.....

Date: 7/2/92.....

Date: 20/2/92.....

Date: 2/4/1992.....

## A N N E X A

### CONCEPT OF THE GLOBAL CLIMATE OBSERVING SYSTEM

1. The goal of the Global Climate Observing System (GCOS) is to provide comprehensive information on the total climate system, involving a multi-disciplinary range of physical, chemical and biological properties and atmospheric, oceanic, hydrologic, cryospheric and terrestrial processes.
  2. The GCOS is intended to meet the needs for:
    - (a) Climate system monitoring, climate change detection and monitoring of the impacts of and the response to climate change, especially in terrestrial ecosystems and mean sea-level,
    - (b) Data for application to national economic development,
    - (c) Research towards improved understanding, modelling and prediction of the climate system.
  3. The GCOS will build, as far as possible, on existing operational and scientific observing, data management and information distribution systems, and further enhancement of these systems. The GCOS will be based upon:
    - (a) Improved World Weather Watch systems and the Integrated Global Ocean Services System,
    - (b) Data communication and other infrastructures necessary to support operational climate forecasting,
    - (c) The establishment of a Global Ocean Observing System for physical, chemical and biological measurements,
    - (d) The maintenance and enhancement of programmes monitoring other key components of the climate system, such as the distribution of important atmospheric constituents (including the Global Atmosphere Watch), terrestrial ecosystems (including the International Geosphere-Biosphere Programme), as well as clouds and the hydrological cycle, the earth's radiation budget, ice sheets and precipitation over the oceans (including the World Climate Research Programme).
    - (e) Programmes to monitor the key physical, chemical and biological aspects of the impacts of climate change (including the World Climate Impact Assessment and Response Strategies Programme).
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## A N N E X B

### TERMS OF REFERENCE, STRUCTURE AND FUNCTIONS OF THE JOINT SCIENTIFIC AND TECHNICAL COMMITTEE AND SUPPORTING STAFF

#### 1. Terms of reference

1.1 The functions of the Joint Scientific and Technical Committee (JSTC) are to formulate the overall concept and scope of the GCOS, and to provide scientific and technical guidance to sponsoring and participating organizations and agencies for the planning and further development of the GCOS.

1.2 Specifically, the JSTC will be called upon:

- (a) To identify observational requirements, define design objectives and recommend co-ordinated actions by sponsoring and participating organizations and agencies, in order to optimize the system's performance and coherence, taking cognizance of the responsibilities, working arrangements and recommendations of established scientific and technical bodies of such organizations and agencies;
- (b) To review and assess the development and implementation of the components of the GCOS, and report to the sponsoring organizations, and to the participating agencies as required;
- (c) To facilitate the exchanges of information among sponsoring and participating organizations and agencies and, in general, make the objectives, resource requirements and capabilities of GCOS known to relevant national and international bodies.

#### 2. Membership

2.1 The JSTC shall be appointed jointly by the Executive Heads of the sponsoring organizations, after consultation with other relevant international organizations and participating agencies.

2.2 The JSTC shall consist of fifteen scientific and technical experts selected on the basis of their personal expertise and appointed by mutual agreement between the sponsoring organizations.

2.3 The membership of JSTC shall aim to include a balanced representation of major operational and research observing programmes contributing to the GCOS, as well as an appropriate mix of disciplines in atmospheric, oceanic, hydrological, cryospheric and biospheric sciences.

2.4 The members will be appointed for an initial term of appointment of two years. The membership of the JSTC shall henceforth be reviewed every second year by the Executive Heads of the sponsoring organizations, after consultation with relevant international organizations and participating national agencies, bearing in mind the need to ensure reasonable continuity in the Committee's membership. To that effect, the term of appointment for any member of the JSTC shall not normally be less than two successive terms.

3. Officers

3.1 The Officers of the JSTC shall consist of a Chairman, a First Vice-Chairman and a Second Vice-Chairman selected by the Executive Heads of the sponsoring organizations and appointed for two-year terms.

3.2 The duties of the Chairman of the JSTC shall be:

- (a) To preside over the sessions of the Committee;
- (b) To act on behalf of the Committee between meetings;
- (c) To guide the activities of the Joint Planning Office for GCOS, with respect to the fulfilment of GCOS scientific and technical planning tasks;
- (d) To conduct, either directly or through appropriate sponsoring organizations, correspondence on matters related to the organization, planning and implementation of GCOS;
- (e) To carry out specific duties as prescribed by decisions taken in agreement by the sponsoring organizations;
- (f) To ensure that the activities and recommendations of the JSTC are in accordance with the joint objectives of the sponsoring organizations, as recorded in this Memorandum of Understanding;
- (g) To arrange for the views of the JSTC to be presented to the sponsoring organizations;
- (h) To prepare annually a report of GCOS planning activities, including the considerations and recommendations by the JSTC, and to present this report to the sponsoring organizations.

3.3 The duties of the Vice-chairmen are to assist the Chairman in his tasks. The First Vice-Chairman or, if not available, the Second Vice-Chairman will replace the Chairman whenever necessary.

4. Sessions

4.1 The JSTC shall meet at least annually, the venue and dates to be decided by the Chairman of the Committee. Sessions shall normally be arranged so as to avoid scheduling conflicts with meetings of executive bodies of the sponsoring organizations.

4.2 The Director of the Joint Planning Office for GCOS, acting on behalf of the Chairman of the Committee, shall inform the sponsoring and participating organizations and agencies, notify the members and make appropriate practical arrangements for the session.

4.3 Each sponsoring organization shall nominate one or two representatives to participate in the sessions of the Committee. The attendance of these representatives shall not be charged to the GCOS Fund.

4.4 Representatives of participating organizations and agencies may be invited to attend the sessions, in the capacity as observers, by the Chairman of the Committee with the consent of the sponsoring organizations. The attendance of such observers shall not be charged to the GCOS Fund.

4.5 Individual experts may be invited to participate in the sessions upon decision of the Chairman of the Committee. The sponsoring organizations shall be informed of such invitations.

4.6 The Secretary-General of WMO shall provide such interpretation facilities as may be required, within budgetary provisions. Documents will normally be distributed in the original language in which they were submitted.

#### 5. Working Groups and Consultants

5.1 The JSTC shall be authorized to establish and convene working groups, panels of scientific and technical experts, special study groups, etc. within its field of responsibility and within the budget approved by the sponsoring organizations, taking account of relevant scientific or technical groups established by the sponsoring organizations and their constituent bodies.

5.2 The membership, terms of reference and special requests addressed to working groups will be notified by the Director of the Joint Planning Office, on behalf of the Chairman of the Committee.

#### 6. Joint Planning Office for GCOS (JPO)

6.1 The general functions of the Joint Planning Office shall be to assist the JSTC in formulating the concept and in organizing the implementation of the GCOS, and any other organizational or technical task, as the JSTC may decide. In particular, the JPO, under the responsibility of its Director, shall take charge for:

- (a) Assisting the JSTC in preparing plans and other guidance material for the development and implementation of the GCOS,
- (b) Providing secretarial support to the JSTC,
- (c) Maintaining scientific and technical liaison with relevant departments and constituent bodies of the sponsoring organizations, and all other relevant institutions or agencies, as required for the development and implementation of GCOS,
- (d) Serving as the documentation and information centre for GCOS and preparing information or action documents pertaining to GCOS, as required by the sponsoring organizations,
- (e) Making arrangements for GCOS planning and co-ordination activities, in accordance with the provisions of Annex C on Financial Arrangements and following the guidelines provided by the JSTC.

6.2 The Joint Planning Office shall be composed of a Director and supporting scientific, technical and clerical staff seconded by the sponsoring organizations and other participating agencies, or supported directly by the Climate Observing System Fund.

6.3 The Director will be selected by consensus agreement of the Executive Heads of the sponsoring organizations and the Officers of the Joint Scientific and Technical Committee for GCOS. The Director will normally have the status of a staff member of WMO and will be appointed by the Secretary-General of WMO.

6.4 The Director will be responsible, for scientific and technical tasks discharged by the Joint Planning Office, to the Chairman of the JSTC acting on behalf of the sponsoring organizations and, for administrative and financial matters, to the Secretary-General of WMO, in accordance with the provisions in Annex C.

6.5 The duties of the Director shall be:

- (a) To direct the work of the Joint Planning Office;
- (b) To guide and support the activities of working groups set up by the JSTC;
- (c) To maintain liaison with the chairman and the members of the JSTC;
- (d) To serve as the channel for communication between the JSTC and the sponsoring and participating organizations and agencies;
- (e) To collaborate, as required, with the Executive Heads of the sponsoring organizations.

6.6 The climate-related component of the GOOS Support Office, established by the IOC in co-operation with WMO, will form the oceanographic component of the Joint Planning Office for GCOS, under the authority of the Director of the Joint Planning Office.

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## A N N E X C

### Financial Arrangements

#### Funding

1. The planning activities for the Global Climate Observing System (GCOS) will be financed by the sponsoring organizations, each from funds appropriated in their budgets for this purpose, and from extra-budgetary resources.
2. Disbursements from each organization in support of GCOS activities may be made upon the authority of the Executive Head of each organization. Alternatively, sponsoring organizations and participating agencies may choose to make funds available through contributions to a trust fund established for this purpose.
3. The Secretary-General of WMO shall open the trust fund, to be known as the Climate Observing System Fund (COSF), to administer extra-budgetary resources made available for support of GCOS activities. The Fund will be administered by the Secretary-General of WMO, on behalf of the sponsoring organizations, in accordance with WMO Financial Regulations.
4. The Fund will adopt a biennial budget and reporting cycle, consistent with the practice of WMO. Corresponding periodic financial reports will be made available to the sponsoring organizations.
5. The cost of staff seconded to the Joint Planning Office (JPO) for GCOS will normally be supported by the responsible sponsoring organizations. Alternatively, a sponsoring organization or participating agency may choose to make a financial contribution to the COSF, in the appropriate amount, to cover the cost of a JPO position. WMO Regulations shall apply to staff positions financed through the Fund.

#### Budget estimates

6. A comprehensive budget estimate for all GCOS planning activities and the activities of the Joint Scientific and Technical Committee (JSTC) and its supporting staff will be submitted by the chairman of the JSTC to the Executive Heads of the sponsoring organizations, in due time for consideration in the preparation of programme and budget proposals, as required.
7. Additional contributions and grants to the COSF from sources other than sponsoring organizations may be accepted by the Secretary-General of WMO, provided the purposes of such contributions and grants are consistent with the overall objectives and tasks of GCOS, as described in this Memorandum of Understanding. The specific activities funded from such grants will be treated as an addition to the programme and level of expenditure approved for GCOS.

#### Liquidation of the assets of the Global Observing System Fund

8. Should either the activities of the Scientific and Technical Committee or the commitment of one of the parties concerned, i.e. WMO, IOC, ICSU or UNEP, be brought to an end, then the remaining balance of the COSF, after the settlement of all financial commitments by the Secretary-General of WMO, will be shared between WMO, IOC, ICSU and UNEP or their liquidating authorities, in proportion to their respective contributions to the Fund.



Logistic support

9. Logistic support and services to the Joint Scientific and Technical Committee and its supporting staff will initially be provided by WMO, from the resources approved for this purpose in the regular WMO budget.

Other provisions

10. These Financial Arrangements may be modified at any time by mutual agreement between WMO, IOC, ICSU and UNEP, provided that no modification would result in conflict with applicable WMO Financial Regulations.

11. In case of doubt as to the interpretation or application of any of the present provisions, the Secretary-General of WMO is authorized to rule thereon, subject to prior consultation with the Secretary of IOC, the Secretary-General of ICSU and the Executive Director of UNEP.

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