

**Intergovernmental Oceanographic Commission**  
*Reports of Governing and Major Subsidiary Bodies*

## **Twenty-seventh Session of the Executive Council**

Paris, 5-12 July 1994

**UNESCO**

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## 1. OPENING

The Chairman, Prof. Manuel Murillo, opened the Twenty-seventh Session of the IOC Executive Council at 10.00 on 5 July 1994.

**The Executive Council received with interest and appreciation** the statements given by the Chairman and the Director-General of UNESCO (see Annex III - A and B).

The Chairman called on the participants to stand in silence as a mark of respect to distinguished individuals who had collaborated with the Commission and had passed away since the Seventeenth Session of the Assembly. Special reference was made to Abou El Fotouh Abdel Latif (Egypt).

## 2. ADMINISTRATIVE ARRANGEMENTS

### 2.1 ADOPTION OF THE AGENDA

**The Executive Council adopted** the Agenda as given in Annex I.

### 2.2 DESIGNATION OF THE RAPPORTEUR

**The Executive Council accepted** the proposal by Brazil to designate Prof. Jilan Su (China) as Rapporteur for the Session.

### 2.3 CONDUCT OF THE SESSION, TIMETABLE AND DOCUMENTATION

The Secretary reviewed the arrangements of the Session and introduced a Provisional Timetable (Document IOC/EC-XXVII/1 Add. prov.) and the Provisional List of Documents (Document IOC/EC-XXVII/4 prov.).

The Secretary informed the Executive Council of the arrangements for the Roger Revelle Memorial Lecture. A summary of the lecture, presented by Dr. S.Z. Qasim, is given in Annex III.

In accordance with decisions of the Fifteenth Session of the Assembly, **the Executive Council established** a Technical Review Committee for Resolutions under the chairmanship of Prof. A. Metalnikov (Russian Federation), comprising the Delegates of Argentina, Brazil, China, France, India, Malaysia, Nigeria, Turkey and USA.

The Resolutions adopted by the Executive Council are given in Annex II. The List of Working Documents, the List of Participants and the List of Acronyms are given in Annexes IV, V and VII, respectively.

## 3. REPORT OF THE SECRETARY ON INTERSESSIONAL ACTIVITIES

The Secretary IOC presented the Annual Report 1993 (Document IOC/EC-XXVII/6). He highlighted major policy issues related to IOC flagship programmes, in particular: the development of GOOS; the capacity building programme and TEMA; follow-up to UNCED in science programmes, and UN systemwide cooperation; public awareness creation as regards the role of the ocean and marine science and ocean observations including, in particular, the preparation for the second International Conference on Oceanography in Lisbon (November 1994). He recalled the grave resource situation of the IOC, which was also pinpointed in the message to Executive Council members dated 21 June 1994 and reflected in Document IOC/EC-XXVII/7. He emphasized the need for IOC to formulate a strong input to the 1996-2001 Medium Term Plan of UNESCO and referred to Annex 1 of the Action Paper. He stressed the follow-up to DOSS and the support received from the UNESCO General Conference for the resolutions of the Assembly, including Resolution XVII-20. In this context, he also referred to UNCLOS and

the possible role of IOC in that respect. A summary of his statement is given in Annex III-D.

Following the Secretary IOC, the Director of the World Climate Research Programme (WCRP), Professor P. Morel, presented the WCRP and its main results. He emphasized the importance for all partners to provide their pledged support. He called upon the Executive Council to help ensure that IOC fully meets its commitments with respect to support for the WCRP.

Several Delegations commented on the report of the Secretary, and were, in general, very supportive of the achievements and efforts made by the Secretary and the Secretariat.

**The Executive Council expressed** satisfaction with the progress in the follow-up to UNCED and the development of GOOS. Very considerable concern was shown regarding the resource situation and the prioritization of programmes. **The Executive Council stressed** the need for commitments from the governments to the activities of the IOC. **It received** with great appreciation commitments from Brazil and the Republic of Korea to second professional staff to the IOC Secretariat.

**The Executive Council agreed** on the need for continuation of the DOSS work and the establishment of a small *ad hoc* group to work intersessionally on resource-oriented aspects, including the possibility of a pledging system for the IOC, and to provide a report to the Eighteenth Session of the Assembly. (See further decision under Agenda Item 7, para.150, which reflects the final decision of the Council as regards this matter).

**The Executive Council expressed** support for the actions taken in the follow-up to DOSS, and acknowledged that increased visibility in UNESCO would provide for a stronger dialogue with the UNESCO Governing Bodies which is one requirement to obtain increased support from UNESCO for the IOC.

**The Executive Council established** an open-ended sessional *ad hoc* group to delineate intersessional actions of the IOC with respect to UNCLOS.

**The Executive Council suggested** that an analysis of benefits to Member States of IOC activities and programmes could provide a valuable basis for obtaining commitments of support from the respective governments.

**The Executive Council suggested** that a policy and result-oriented summary could be included in the Annual Report.

**The Executive Council endorsed** the report of the Secretary and expressed its appreciation for the work of the Secretariat.

The Representative of WMO, while concurring with the policy that GOOS development should build on existing observational programmes, nevertheless emphasized that IGOSS is an existing joint programme of WMO and IOC with its own steering mechanism and roles, some of which may not be relevant to GOOS.

The Representative of IMO brought to the attention of the Council IOC's TEMA-related activities in providing, on a yearly basis, a course module at the World Maritime University on the scientific aspects of marine pollution control and abatement. He emphasized the important implications of this action and expressed the wish of IMO to co-operate with IOC to ensure that a joint course module of this nature be prepared for regional use and application.

**The Executive Council adopted** Resolution EC-XXVII.1.

#### 4. PROGRAMME AND BUDGET

Following a general overview by the Chairman, the First Vice-Chairman introduced this agenda item by presenting his analysis of the IOC financial base, the three sources of funding that support it, and the present situation in regard to the feasibility of ensuring sound management and implementation of IOC programmes. His statement is found as Annex III-E.

In referring to background documentation as reflected in the Action Paper and Document IOC/EC-XXVII/7, he emphasized the growing gap between the aspirations of the Commission as reflected in its expanding programme and responsibilities, and the means available to IOC.

While acknowledging that establishment of priorities is a difficult task when resources are uncertain and demands are increasing, he nevertheless urged the Executive Council to consider what action should be taken by Member States to, on the one hand, balance needs and resources, and, on the other, mobilize the required additional funding. In this context, reference was made to the relevance of discussion under agenda items 7, 8 and 9, as well as to the financial implications emanating from Draft Resolutions before the Council.

In pursuance of decisions made by the Seventeenth Session of the Assembly (Document SC/MD/101, para. 490), an *ad hoc* sessional group was established to consider programme and budget matters, working in concert with the Technical Review Committee on Draft Resolutions.

The majority of Members participated in discussions under this agenda item, either in plenary or within the work of the *ad hoc* sessional group. Noting that near and medium-term aspects were being dealt with under agenda items 7 and 9, **the Executive Council concentrated** its work under this agenda item on the immediate concerns for the programme and budget 1994-95.

As a subject of primary concern, **the Executive Council decided** that its major initiative should be directed to presenting a convincing argument to UNESCO that would support the restoration of funding that the Organization had been obliged to reduce due to various economy and concentration measures.

At the same time, **the Executive Council recognized** the responsibility of Member States to take appropriate action at the national level, both with a view to generating additional 'matching' funds, as well as to ensure that national policy positions reflected IOC priorities at bilateral, multilateral and international fora. Specific mention was made of the responsibility of those IOC Member States also represented on the UNESCO Executive Board to make known and defend the unique opportunities offered by the IOC to UNESCO as its marine scientific and policy body.

In referring to the valuable work accomplished by various IOC *ad hoc* study groups, and most recently by DOSS, **the Executive Council emphasized** that the major strength of the IOC partnership lies in the will and ability of Member States to formulate and implement national policy on ocean and coastal areas in concert with that decided upon by the same Member States within the IOC framework.

To facilitate the efforts of IOC representatives to this end, **the Executive Council instructed** the Secretary to prepare a circular letter with appropriate briefing material in support of IOC initiatives and, in transmitting this to IOC Member States, to urge them to take appropriate action at the national level. The circular letter should include a request that IOC contacts forward the letter to relevant national funding authorities under a covering letter which would provide details of national benefits derived, and to be derived, from participation in IOC programmes.

Information thus provided should include an analysis of the total resources required and identify ways and means by which Member States can assist. The Modalities of Support by IOC Member States, as approved by the Sixteenth Session of the Assembly, should be referred to and amplified in this regard, with due reference made to new and emerging IOC responsibilities emanating from UNCED and the entry into force of UNCLOS.

Turning to the approved recommendations of DOSS concerning the formulation of programme and budget requirements by IOC subsidiary bodies, **the Executive Council expressed** its satisfaction that considerable progress had been made to this end.

Noting, however, that several draft resolutions before the present session did not provide sufficient information for concrete decision, **the Executive Council instructed** the Secretary to develop more specific guidelines for the use of subsidiary bodies so as to facilitate their deliberations as well as those of the IOC Governing Bodies.

Recognizing the complexity of the IOC funding system, both in terms of forecast revenue from a variety of sources and fluctuation in the level and destined utilization, **the Executive Council instructed** the Secretary to:

- (i) include in future reports on IOC expenditure an explanatory foot-note when significant variations occur between forecast and real expenditure; and
- (ii) include in the programme and budget proposals submitted to the Assembly an indication of total resources required, anticipated resources and ensuing short-falls.

In concluding its debate on this agenda item, **the Executive Council reiterated** its conviction that a concerted effort on the part of UNESCO, as the parent body of the IOC, and Member States themselves as IOC's partners, could indeed result in mobilizing the resources necessary for the Commission to carry out its mandate.

The Delegate of Canada reported that his country was considering convening a workshop on the increased use of multilateral intergovernmental organizations, such as the IOC, for the delivery of bilateral aid programmes. He undertook to inform the Secretary of the progress on this initiative.

While acknowledging that this is a step-wise process where considerable progress has been made at the national level, **the Executive Council conferred** to the Member States the primary responsibility of ensuring that the policy of the United Nations system, including that of UNESCO, and that of donor and recipient countries within bilateral and multilateral arrangements, reflect the expertise and political will of the IOC community. The Delegate of Canada gave an example of efforts being made by his country to link CIDA support in South-East Asia to the WESTPAC programme.

**The Executive Council adopted** Resolution EC-XXVII.2.

## **5. PROGRAMME MATTERS REQUIRING DECISIONS BY THE EXECUTIVE COUNCIL**

### **5.1 OCEAN SCIENCE IN RELATION TO LIVING RESOURCES: THE IOC-FAO INTERGOVERNMENTAL PANEL ON HARMFUL ALGAL BLOOMS (OSLR-HAB)**

Dr Bernt I. Dybern, Chairman of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms (IPHAB), introduced the item, recalled the HAB Programme Elements, and summarized on-going and future activities. He noted that 60 to 80 Member States potentially have problems with harmful algae, but that very few of these have all the required expertise to deal efficiently with the scientific, social and economic problems related to their occurrence. The multi-disciplinary nature of the HAB problem was underlined, and the need for scientific input and concerted action to help mitigate harmful effects of algal occurrences was emphasized.

With respect to staff and financial requirements of the Programme, Dr. Dybern drew the Council's attention to the Recommendations of the Second Session of IPHAB. He urged the Executive Council, in particular, to consider continued and expanded staffing of the HAB Programme Office at the IOC Secretariat.

He concluded by informing the Executive Council of the positive developments concerning the HAB Science and Communication Centres announced by Spain and Denmark at the Seventeenth Session of the Assembly, as a contribution to the implementation of the Programme. The Secretary IOC complemented this information by confirming that support for the further development of the HAB Training and Capacity building programme has been provided by Denmark, and that additional substantial funding for parts of the programme is expected as from 1995.

**The Executive Council responded strongly** to the presentation with fifteen Delegations providing comment regarding their prioritization of, and participation in, the HAB Programme.

**The Executive Council expressed** strong support for the HAB Programme; it was referred to as an IOC priority by many Delegates, in particular the training and capacity building part of the Programme.

**The Executive Council recognized** the need for professional staff for the implementation of the HAB Programme, and **acknowledged** the present secondment by Denmark of two Associate Experts specifically to the Programme, and the past provision of Technical Secretaries for OSLR by the United States.

**The Executive Council welcomed** the indication from Canada that it might second an expert on harmful algae to the IOC Secretariat, and **equally welcomed** the secondment by Italy of an Associate Expert for OSLR as well as the confirmation from the United States of its partial financing of a post as Technical Secretary for OSLR.

**The Executive Council recommended** that the HAB programme also focus on protective measures, and **noted** that this would be a good example of application of the precautionary principle as expressed in Agenda 21.

Concerning the HAB Science and Communication Centres, the Delegate of Spain informed the Executive Council that the Spanish Government is in the process of setting up the Centre at the Instituto Español de Oceanografía, Centro Oceanográfico de Vigo. The Centre is envisaged to be operational during 1995, and on behalf of the Centre he looked forward to cooperating with the IOC Secretariat and the complementary Danish Centre.

The Delegate of Japan informed the Executive Council of recent WESTPAC-HAB developments, and drew attention to the 7th International Conference on Toxic Marine Phytoplankton, to be held in Sendai, Japan, July 1995. He urged Member States to send young scientists to the Conference, especially young scientists from developing countries. **The Executive Council confirmed** the interest of IOC in co-sponsoring this Symposium, as had been done for previous ones.

**The Executive Council welcomed** the offers of: (i) Italy to host and support a meeting of the IPHAB Task Team on Taxonomy at the Zoological Station Anton Dohrn, Naples, prior to the next Session of IPHAB; (ii) the United Kingdom to support and host a training course, lasting ten days, on Qualitative- and Quantitative Determination on Algal Toxins, Torry Research Station, Aberdeen, Ministry of Agriculture, Fisheries and Food, September 1996; (iii) Japan to continue its WESTPAC-HAB training and capacity building activities; (iv) China to host a training course on HAB taxonomy; (v) Canada to continue its support for the CIDA-ASEAN Red Tide Programme in co-ordination with the HAB component of WESTPAC, and the endeavours to provide algal toxin standards and reference material to developing countries as a joint effort between the National Research Council and the Canadian International Development Aid Agency, likewise in co-ordination with the related IOC programme; and (vi) Germany to host and support the IOC-WHO-FAO Training Course on Qualitative and Quantitative Determination of Algae Toxins, in Jena, Germany, October 1994.

The Representative of IMO introduced the issue of transfer by ballast water of organisms which may be responsible for harmful algal events. He called for co-operation in order to gain wider acceptance of guidelines for discharge of ballast water, and suggested an international working symposium on transfer of species by ballast water. In this context IMO offered to co-sponsor a session at the 7th International Conference on Toxic Marine Phytoplankton, Sendai, Japan, July 1995, on transfer of potentially harmful algae. Organizations were invited to support the finalization of the Guidelines for

Preventing the Introduction of Unwanted Aquatic Organisms and Pathogens from Ships' Ballast Water and Sediment Discharges.

The Representative of UNEP reported that UNEP had identified marine living resources as a top priority, and expressed the support of UNEP to the implementation of OSLR activities in close co-operation with IOC.

The General Secretary of ICES expressed his pleasure at the opportunity to address the Executive Council for the first time in his position. He recalled the active interaction between the two organizations, and the strong involvement of ICES, not least, in the HAB Programme. He expressed the willingness of ICES to further strengthen and develop interaction with IOC, and, if necessary, to improve the formal basis for co-operation. He invited IOC and IMO to co-sponsor the open lecture and the supporting theme session on transfer of marine organisms by ballast water at the 1995 ICES Council Meeting in Copenhagen.

**The Executive Council adopted Resolution EC-XXVII.3.**

## 5.2 GLOBAL INVESTIGATION OF POLLUTION IN THE MARINE ENVIRONMENT (GIPME-VIII)

In introducing this Agenda item, the Chairman of the IOC-UNEP-IMO Committee for GIPME, Dr. Neil Andersen, made reference to Document IOC/EC-XXVII/6 (Report of the Secretary on Intersessional Activities: Annual Report for 1993) which contains details of the achievements of the GIPME Programme and lists short-term implementation problems, as well as to Document IOC/EC-XXVII/10 which is the Executive Summary of the Report of the Eighth Session of the Committee for GIPME (San José, Costa Rica, 18-22 April 1994).

Dr. Andersen stated that the conclusions of UNCED have confirmed the validity of the programmatic objectives of GIPME in the context of marine environmental protection. They also confirm the wisdom of the decisions for the joint sponsorship of GIPME by UNEP and IMO, and the value of harmonizing their respective regional marine pollution activities to form a comprehensive and consistent global programme with improved cost effectiveness. As a result, GIPME is now faced with serving in a much wider role in the world marine community than was originally envisaged in 1976 when the Comprehensive Plan for GIPME was first published.

Dr. Andersen noted that the development of the concept of GOOS in the last few years was another new initiative directly affecting long-term policy considerations in GIPME. He remarked that GIPME offers a mechanism for providing information to one of the modular elements of GOOS through the delivery of marine scientific data on conditions in the marine environment relating primarily to chemical characteristics, fluxes and biological effects that constitute essential elements of the programme. He cited the International Mussel Watch Project as an example of an on-going activity within GIPME which has a clear value for GOOS.

Dr Andersen observed that GIPME was now seen as having two primary purposes or product delivery paths. These are:

- (i) providing assessments of the "State of the Marine Environment" for the sponsoring bodies to carry out their responsibilities in their respective organizations; and
- (ii) providing data and information to GOOS to satisfy the requirements of GOOS, and, indirectly, that of GCOS and Earthwatch.

He said that one consequence of the above stated developments and the changed status of GIPME is that the programme now transcends the original boundaries such as methods development, intercalibration exercises and training. The required follow-up activities to UNCED, including considerations with regard to Land-Based Sources of Marine Pollution, Integrated Coastal Areas Management, linkages with IMO, and continued implementation of UNEP's Regional Seas Programme, dictate the need for innovation in the management and implementation of GIPME. He then specifically proposed that GIPME have a semi-annual in-depth review among its officers and secretariats of the co-sponsors. These reviews would be hosted



on a rotating basis by the co-sponsors. Further, he indicated that specific consideration should be given at the first in-depth review to include periodically three or four additional people, not involved in GIPME, but competent to evaluate the science involved, to serve in the capacity of a scientific advisory resource to the respective co-sponsors.

Finally, Dr Andersen drew the attention of the Executive Council to the Third GIPME Action Plan and the Draft Resolution on the Marine Environment Studies Laboratory (of the International Atomic Energy Agency Laboratory, Monaco) formulated during the Eighth Session of GIPME in April 1994, and submitted to the Executive Council as part of the Executive Summary of the report of the meeting and recommended them for approval and adoption respectively.

The Representative of UNEP and Deputy Director of UNEP's Ocean and Coastal Areas Programme Activity Centre, Dr Makram Gerges, applauded the achievements of the GIPME Programme and expressed full satisfaction at the level of co-operation between UNEP and IOC.

He referred particularly to the successful organization of activities at the regional level in the form of specialised workshops, intercalibration exercises, development of methods, standards and reference materials necessary for marine pollution studies, as well as the provision of guidance and scientific advice to numerous laboratories participating in individual and collective marine pollution research and monitoring programmes.

The UNEP Representative extolled the Joint IOC-UNEP Intergovernmental Panel for GIPME, chaired by Dr Mario Ruivo (Portugal), referring to the progress achieved thus far in the harmonization and consolidation of the marine pollution activities of both UNEP and IOC. He pointed out the success of the Symposium in Costa Rica in April 1994 which focussed on the merits and achievements of the first IOC-UNEP joint and consolidated Programme of Marine Pollution Assessment and Control in the Wider Caribbean Region (CEPPOL) as a model for enhancing joint programming in other regions.

The UNEP Representative welcomed the decision of the IMO Council in 1992 to co-sponsor GIPME, noting that a strengthened GIPME would provide an effective response to Chapter 17 of Agenda 21 of UNCED which calls for

*"establishing systematic observation systems to measure marine environmental quality, including causes and effects of marine degradation, as a basis for management".*

He announced that UNEP would continue to support the development of the Health of the Ocean Module of GOOS.

Referring to the Draft Resolution on the Marine Environment Study Laboratory (MESL of the International Atomic Energy Agency Laboratory in Monaco) which was proposed by the Eighth Session of GIPME, the UNEP Representative urged its adoption by the Executive Council because of the pivotal role of the laboratory in providing invaluable technical backstopping to the GIPME Programme and related programmes within and outside of the United Nations System. He also called for official high-level contacts with IAEA and for a possible increase in IOC's support to that Laboratory as envisaged, even if indirectly, in the Memorandum of Understanding signed in October 1992 between UNEP, IOC and IAEA on the functioning of MESL.

The Representative of IMO and Secretary of the London Convention (1972), Dr Manfred Nauke, stated that the decision made by the IMO Council in November 1992 to co-sponsor GIPME was guided by:

- (i) IMO's awareness of GIPME efforts in the testing of effects, development and refinement of methodologies, and intercalibration exercises which form the backbone of national monitoring programmes required under the various pollution prevention conventions administered by IMO;
- (ii) IMO's conviction that the preparation of a global status report on the marine environment, undertaken periodically by GESAMP, needs the contribution of results carried out in many regions under the GIPME Programme; and

- (iii) IMO's recognition of the valuable scientific contributions that have been made, and could also in future be provided, through GIPME to IMO's various regional GEF or UNDP Programmes on prevention and management of marine pollution and, in a wider context, marine environmental protection, including the involvement of GIPME in training exercises and capacity building.

The IMO Representative announced that in reaching its decision to fully co-sponsor GIPME, the IMO Council was of the opinion that no special budget line was needed but that the costs of co-sponsorship would be covered through existing funds already allocated for marine pollution prevention activities, or provided for carrying out IMO-led GEF projects. He stated that rather than allocating lump sums to the GIPME programme, IMO would contribute financially on a case-by-case basis to GIPME activities.

The IMO Representative submitted that IMO would be hesitant to join the IOC - UNEP Intergovernmental Panel for GIPME, but would, however, send observers to the meetings of the Panel. He stressed instead IMO's preference and support for the proposal by the GIPME Chairman to constitute a scientific advisory mechanism which would primarily and routinely review the GIPME programme, and would also facilitate communication between co-sponsoring agencies and the GIPME Groups of Experts.

**The Executive Council expressed** great satisfaction at the considerable achievements of the GIPME programme and its overall development.

**The Executive Council took note** of the Executive Summary **and endorsed** the Recommendations of the Eighth Session of the IOC-UNEP-IMO Committee for GIPME, including approval of the proposed Third GIPME Action Plan (1994-97).

**The Executive Council expressed** support, as resources permit, for establishing a semi-annual in-depth review of GIPME as outlined by the Chairman of GIPME.

**The Executive Council took note** of the joint efforts by the Ukrainian Academy of Sciences, IOC and ROPME Secretariats, and ROPME Member States to organize a summer oceanographic cruise in the ROPME Sea Area, originally planned for 1994 but now re-scheduled for 1995, and encouraged the IOC Secretary to work towards the realization of the cruise.

**The Executive Council welcomed** the expressed intention of Russia to carry-out their marine pollution programmes within and outside of Russia in such a way as to reinforce GIPME global actions.

**The Executive Council expressed** appreciation to Nigeria for the offer of her national facilities including central analytical laboratories and oceanographic vessels for the implementation of GIPME-related activities in the IOCEA region.

**The Executive Council adopted** Resolution EC-XXVII.4.

### 5.3 INTERNATIONAL OCEANOGRAPHIC DATA AND INFORMATION EXCHANGE AND RELATED MATTERS

Mr. Peter Pissierssens, Technical Assistant Secretary, presented this agenda item and briefly informed the Executive Council on the progress achieved by the IODE Committee on IODE in 1993-1994, referring to Document IOC/EC-XXVII/11. He referred to the decisions of IOC Governing Bodies which emphasized the importance of ensuring adequate oceanographic data and information services for Member States and for the scientific and observational programmes of the Commission, including the World Climate Research Programme. He emphasized the importance attached by UNCED to information and data exchange for public education, awareness creation and information programmes, for the support of an integrated policy and decision-making process, and for capacity building. Reference was made to the development of a GTSP data and information CD-ROM, the setting-up of an INTERNET data and information server and the development of the IOC full-text CD-ROM of publications.

The Executive Council was reminded of the recommendation made by Member States to use existing programmes for the development of GOOS. In compliance with this, IODE prepared

a policy paper on 'IGOSS and IODE Data Management Goals to Support GOOS' which is now being reviewed by operational and scientific communities.

He then focused his presentation on the activities of the IODE Group of Experts on Marine Information Management and referred the Council to the Summary Report of the Fourth Session of the Group (Document IOC/EC-XXVII/11). He summarized the MIM work as follows:

- (i) development of standard marine information database structures;
- (ii) development of regional marine information networks in developing countries/regions;
- (iii) implementation of modern information technology in marine information management;
- (iv) integration of data and information;
- (v) assisting in the development of ASFA.

Reference was made to the successful RECOSCIX-WIO Project, developed in the IOCINCWIO region. It was pointed out that under present budgetary constraints facing the IOC, further development of parallel projects in the IOCEA and other regions could not be achieved without extrabudgetary resources.

In closing his presentation he referred to the implementation of Resolution XVII-7 'Development of ASFIS/ASFA and the IOC future role in it' by saying that ground-breaking work was achieved following the inter-Secretariat consultations on ASFA which took place in Rome in March 1993 and, more importantly, during the ASFA Advisory Board, hosted by the IOC in June 1993. This includes distribution of responsibilities between the UN agencies, the National Partners and the publisher, and the agreement of FAO to continue its role as the ASFA Secretariat. In the new structure, considerable effort will be put on the improved coverage of publications relevant to developing countries, and to a more active participation of developing countries in ASFA.

Several Delegates commended the progress achieved by IODE and informed the Executive Council of national activities in ocean data and information management. The development of standards in data and information management will facilitate exchange on an international scale, and will be of assistance especially to developing countries.

**The Executive Council expressed satisfaction** with improved co-operation with FAO, UNEP, and UN in the development of ASFA and expressed the view that ASFA will continue to be an important tool for marine scientists throughout the world. **The Executive Council acknowledged** the invitation of China to host the upcoming 1994 ASFA Advisory Board in Tianjin in October 1994.

**The Executive Council commended** the Group of Experts on MIM for its high level of involvement and dynamism in the implementation of numerous activities. **Member States were requested** to continue to identify resources and support specialists who can actively participate in the activities of the Group.

The Delegate from Nigeria commended the IOC for the success of RECOSCIX-WIO and thanked the donors. Welcoming the development of the RECOSCIX-CEA project for the IOCEA region, he regretted the paucity of funds and called on donors interested in the IOCEA region to provide funds for RECOSCIX-CEA which he identified as a priority project.

**The Council welcomed** the co-operation established between IOC and other international agencies such as CEC, ICES, ICSU and WMO in ocean data and information management.

The involvement of IAMSLIC can be seen as a successful attempt to establish better collaboration with non-governmental organizations in IODE.

**The Council noted** with satisfaction numerous expressions of support to the IODE and its MIM programme, and thanked Greece for its readiness to host IODE-XV in January 1996, India for considering hosting GODAR-III in 1994, Argentina and Japan for their assistance in training activities in South America and in the WESTPAC region, respectively, Malta for its offer to host GODAR-IV and the Training Course in Ocean Data Management for the Mediterranean in 1995, and Belgium and the United Kingdom for the continuing support to RECOSCIX.

The Executive Council was informed of the offer of Russia to host a Training Course on Marine Geophysical and Geological data in 1995 as an important contribution to the objectives of COMSBLACK and the Floating University project, and noted the request of Russia to consider provision of limited support for the implementation of this activity.

**The Council expressed satisfaction** with the actions taken by the Director General of UNESCO in restoring the professional post for Marine Information Management and trusted that it would be filled by the end of 1994 or early 1995 within the staff establishment of the 27 C/5.

**The Council re-iterated** the call to Member States to provide staff and financial assistance to the IODE Programme to enable the Secretariat to cope effectively with new demands and needs for ocean data and information.

**The Executive Council adopted** Resolution EC-XXVII.5.

#### 5.4 GLOBAL OCEAN OBSERVING SYSTEM (GOOS) AND GLOBAL CLIMATE OBSERVING SYSTEM (GCOS)

Prof. Michel Glass, Chairman of I-GOOS, introduced GOOS and presented the important issues resulting from the First Planning Session of the IOC-WMO-UNEP Committee for GOOS (I-GOOS) held in Melbourne, Australia, 18-21 April 1994 (Document IOC/EC-XXVII/12). The GOOS Status Report - December 1993 (Document IOC/INF-958) was made available to participants and a highlighted summary and a concise update for 1994 were presented by Dr. Scherer, Director of the GOOS Support Office.

Prof. Glass stressed the importance of the transition to operational oceanography which requires new relationships with: (i) governments and users; (ii) scientists; (iii) international existing programmes; and (iv) developing countries. He underlined urgent, critical measures discussed at the Melbourne meeting regarding: (i) the clear internal structure required for GOOS, especially in relation to I-GOOS and J-GOOS; (ii) the need to have all co-sponsors sponsor all of GOOS, and not just a part; (iii) the importance of socio-economic studies performed both internationally, i.e. OECD and nationally by individual Member States; (iv) speedy implementation of concrete, specific actions, e.g. the continuation of the post-TOGA Observing System; and (v) adequate support, both in terms of resources and administration, to the GOOS Support Office. There is a need for a clear expression of support for the promotion of growth for GOOS by governments and the intergovernmental and international sponsors. Careful co-ordination of the national, regional and international levels of GOOS development is also critical.

The first Vice-Chairman of IOC, Mr. Geoffrey Holland, reported on the discussion of the sessional working group on GOOS Resources, including for the GOOS Support Office. He noted with regret the need to find a replacement for Dr W. Scherer, the Director of the GOOS Support Office, whose secondment term comes to an end in December 1994. He summarized the present commitments of Member States to GOOS, the potential contribution of additional Member States, and their request for a clear definition of the programme of work, including priorities for the GOOS Support Office (see Annex VI). A chart listing these was requested of the Director of the GOOS Support Office. Clearer delineation of interactions between GOOS and existing programmes and activities was also needed. The working group stressed the need to have a strongly supported, highly visible and centralized function for GOOS within the Commission. The need to demonstrate the cost-benefit advantage of GOOS to generate political visibility was also stressed. The working group recognized the need for capacity building among all Member States and, in particular, training and assistance for developing states.

Many Member States presented their commitments, including training opportunities and activities related to GOOS and expressed their views on the identified critical GOOS issues. The unanimous interventions by 20 Members confirmed the recommendation by the Executive Council that, within the IOC, GOOS be given top priority and serve as IOC's major response to UNCED and that it be the "flagship" of IOC. Management issues identified centered on the following relationships and their balance: (i) priorities and implementation strategy; (ii) I-GOOS and J-GOOS; (iii) operations and research; (iv) existing and new system; (v) physical-climate community and the biological-health-coastal zone communities; and (vi) GCOS and GOOS. The need to concretely define GOOS objectives was stressed. The

suggestion was made that the Director of the GOOS Support Office may find it useful to consult with an informal reference group consisting of the Chairmen of I-GOOS, J-GOOS and the Joint Scientific and Technical Committee for the Global Climate Observing System (JSTC/GCOS) on priorities for GOOS-related activities.

**The Executive Council recognized** that GOOS must continuously evolve, and that there is a need to continue to sharpen the definition of GOOS and its implementation strategy. GOOS is a global system that includes regional components as exemplified in some regional pilot activities. Representatives of WMO, SCOR and UNEP reaffirmed their support and commitments to GOOS (see Annex VI). The chair of GLOSS, Dr. D. Pugh, described the present GLOSS as a successful contribution by an existing operational programme into the GOOS framework. He also reiterated the request for increased secretariat support for GLOSS. Several Member States expressed their support for the structure for GOOS as defined at the I-GOOS Planning Session in Melbourne, but the Representative of SCOR suggested a possible realignment of some GOOS panels. Support and appreciation was expressed for GOOS News and its continuance as a communication vehicle for GOOS.

**The Executive Council noted** with appreciation the offer of a secondment to the GOOS Support Office by France, a possible secondment by Brazil, the recent secondment by Japan, and contributions to GOOS by WMO and UNEP. **The Executive Council also noted** the critical importance of establishing a permanent UNESCO post for the Director of the GOOS Support Office. **It requested** the Secretary IOC to urgently initiate appropriate actions, **and further requested** the co-sponsoring organizations to assist in whatever way possible in the establishment of such a UNESCO post.

The Representative of GCOS presented an overview of GCOS development and related issues. He reconfirmed the strong co-ordination and interaction that exists between GCOS and GOOS and the need for the synchronous development of GCOS and GOOS.

The GOOS Session concluded with the establishment of a sessional *ad hoc* working group on GOOS resources, co-chaired by the Chairman of I-GOOS, and the First Vice-Chairman. The summary report of this *ad hoc* working group appears in Annex VI.

**The Executive Council adopted** Resolution EC-XXVII.6.

## 5.5 TSUNAMI WARNING SYSTEM: ITSU AND IDNDR CONFERENCE

The Chairman of the International Coordination Group for the Tsunami Warning System in the Pacific (ICG/ITSU), Mr. Hugo Gorziglia, introduced this item and informed the Executive Council on the results of the Fourteenth Session of the ICG/ITSU, held in Japan in September 1993, and referred to Document IOC/EC-XXVII/13.

He highlighted the main achievements of the Group by noting: the implementation of phases 1 and 2 of the real-time telemetry, seismic and tsunami data exchange project; improvement of communicating tsunami watches and warnings to/from Beijing and Pyongyang; the organization of survey missions in the tsunami-affected areas of Nicaragua and Japan; implementation of the TIME project and problems connected with this activity; renewal of ITIC operations; development of earthquake and tsunami text books and methodological instructions for teachers; provision of publicity to an automatic system of real-time measurements of seismic movement and the estimation of tsunami risk.

The Chairman of the ICG/ITSU especially emphasized the importance of the revision of the ITSU Master Plan published in 1987, which guides and shapes activities of the Group. He also referred to the interesting and encouraging results of the joint IOC-IUGG International Tsunami Symposium held in Wakayama, Japan, prior to ITSU-XIV and thanked Japan for its support and the facilities provided for both meetings.

Referring to the recommendation of the World Conference on Natural Disaster Reduction, Yokohama, 23-27 May 1994, on the need to accelerate the implementation of education and training programmes, Mr. Gorziglia presented an overview of progress in regard to the development of earthquake and tsunami textbooks and methodological instructions for teachers, and informed the Executive Council that the Spanish version of these papers was produced by Chile and distributed among all Members.

of the ICG/ITSU and among participants of the Yokohama Conference. **The Executive Council noted with satisfaction** that Japan, Italy and Russia are considering the publication of these books in their languages, and that Canada is co-ordinating the preparation of an English version for publication. **The Executive Council encouraged** the ICG/ITSU Chairman and Member States to take all the necessary measures for the publication of English texts as soon as possible.

**The Executive Council acknowledged** the revitalization of ITIC activities, and the continuing support of the USA to ITIC activities. Satisfaction was expressed with the resumption of the visiting experts programme from the fall of 1994, publication of ITIC Newsletter and implementation of other responsibilities assigned to ITIC by ICG/ITSU.

Concern was expressed that, in spite of attempts to secure funding for the TIME project for 1994, the progress in implementing it was relatively slow, due to the limitation of available funds. **The Executive Council commended** the studies made by Japanese tsunami experts led by Prof. Shuto from Tohoku University, Japan, in the development of an accurate tsunami inundation model and expressed thanks to the USA for the contribution of funds to speed up the implementation of the project.

**The Executive Council placed high priority** on the Project Proposal "Tsunami Warning System in the South West Pacific", which has been with the UNDP since 1989 and **requested** the IOC Secretary to continue efforts in search of the UNDP and Member States' support to the project. In this regard, the decision of the Conference for Latin American Countries on Natural Disasters (21-24 March 1994) on the importance of the establishment of effective sub-regional warning systems was noted with satisfaction.

The Delegate of Japan informed the Executive Council of the installation of the new system for urgent earthquake detection for tsunami warning and suggested the utilization of the experience gained in future considerations of the Pacific warning system.

**The Executive Council recognized** the need to consolidate co-operation between European experts and scientists from the Pacific in tsunami research and mitigation.

**The Executive Council** was informed of the actions taken by UNESCO for inclusion in the UNESCO Fourth Medium-term Plan of an intersectorial project on tsunamis, and **expressed** satisfaction that the chairpersons of UNESCO environment programmes (IGCP, MAB, IHP), and of the IOC, identified as one of the four areas of interdisciplinary co-operation in the Fourth Medium-term Plan an interdisciplinary project on integrated natural disaster management. The tsunami programme will be one of its important components.

The Delegate of France confirmed the invitation of his country to host ITSU-XV in Tahiti, French Polynesia, in the fall of 1995, which was noted with thanks.

**The Executive Council approved** the Summary Report of the Fourteenth Session of the ICG/ITSU and its Recommendations and **adopted** Resolution EC-XXVII.7, calling for increased support to tsunami programme activities.

**The Executive Council noted with concern** that the level of financial support to the programme is low and could jeopardize the implementation of the whole effort.

In this regard, the experience gained by the European Open Agreement regarding Natural Hazards and Risks in securing necessary funds for its activities was noted with interest and recommended for careful consideration.

**The Executive Council expressed** its appreciation of the leadership provided by the former Chairman of the ICG/ITSU, Mr. R. Hagemeyer, for the activities of the Group during the last six years and wished him every success in his present duties.

The IOC Senior Assistant Secretary, Dr I. Oliouline, informed the meeting on the results of the World Conference on Natural Disaster Reduction convened by the United Nations and hosted by the Government of Japan in Yokohama, 23-27 May 1994. The Conference undertook a five-year review

of the progress made by Member States and organizations in meeting the IDNDR objectives.

The World Conference presented an opportunity for IOC to assert its recognized role in the study of the mechanisms of natural hazards, such as tsunamis, harmful algal blooms, sea-level change, and of the scientific and technical mitigation of risks arising therefrom. IOC was represented at the Conference in its own right and made an important contribution to the Conference activities, such as the work of the Technical Committee on Warning Systems, an exhibition and video demonstrations.

The Conference formulated an action programme for the future which is presented in the "Yokohama Strategy for a Safer World" and adopted the Yokohama Message. Three issues constitute the base of the strategy: from relief operations to preparedness, promotion of regional and sub-regional co-operation and accelerated implementation of education and training programmes.

**The Executive Council expressed** its support to the outcome of the Yokohama Conference and reaffirmed its commitments to the implementation of the Decade. Noting that ECOSOC, at the coming session in July 1994, will consider the results of the Yokohama Conference, **the Executive Council requested** the Secretary IOC to inform ECOSOC urgently of IOC's position towards the Yokohama Conference and IDNDR. **The Executive Council expressed** belief that the IDNDR Secretariat, which was so successful in the preparation for the Conference, will be reinforced and continue to be an operational arm of the UN in the implementation of the Yokohama strategy.

## **6. FOLLOW-UP TO UNCED INCLUDING TEMA AND CAPACITY DEVELOPMENT**

The Secretary IOC introduced the item referring to several documents: IOC/EC-XXVII/Inf.5, Progress Report on Implementation of IOC-XVII Resolutions related to UNCED; IOC/INF-959, Report of the First Session of the ACC Sub-committee on Oceans and Coastal Areas (FAO Headquarters, 19-21 April 1994); IOC/EC-XXVII/8 Annex 3 and Addendum, the IOC Involvement in Climate-related Activities and Associated Issues; and Statement on the Climate Agenda, IOC/EC-XXVII/Inf.3, IOC and the Convention on Biological Diversity; IOC/EC-XXVII/8 Annex 4, Draft TEMA Strategy to respond to UNCED Agenda 21, Chapter 17, Part E; the Annual Report 1993 (IOC/EC-XXVII/6); and the Action Paper, section 6 (IOC/EC-XXVII/8).

He informed the Executive Council that the First Session of the ACC Sub-committee on Oceans and Coastal Areas had agreed on a division of work among the participating bodies relating to Chapter 17 of Agenda 21, and a time schedule for the preparation of the report on oceans to the CSD to be ready early in 1996. The IOC is responsible for Part E. The Secretary recalled that the Assembly had identified a number of "flagship" activities as the IOC priority response to UNCED, including GOOS, marine pollution studies, ocean science in relation to living resources, capacity building and coastal zone research.

He recalled Resolution XVII-18 (Implementation of UNCED Decisions relevant to the IOC) and drew attention to the work so far achieved, as reported in Document IOC/EC-XXVII/Inf. 5. This paper also reports on several other Assembly resolutions relevant to the follow-up to UNCED, including coastal zone activities; the International Year of the Ocean 1998. The Secretary informed the Council that the General Conference had endorsed the proposal, that the Director-General had submitted it to ECOSOC, and that it was now on the Agenda of ECOSOC.

The Secretary also informed the Council that the ICSPRO Consultation, FAO, 22 April 1994, had strongly confirmed the need for maintaining ICSPRO and had identified several issues that ICSPRO could deal with, e.g., as an inter-agency mechanism for UNCLOS, and for the International Year of the Ocean 1998.

He informed the Executive Council of the development of close co-operation between IOC and the interim Climate Change Secretariat in Geneva, through an IOC consultant stationed in Geneva, and that IOC regularly participates in the INC sessions, invited in its own capacity. He recalled that IOC is a co-sponsor of the WCRP and contributes to the work of the IPCC through relevant working groups. He also recalled the association of the IOC with CEOS.

He informed the Council that IOC is closely following activities with respect to the Convention on Biological Diversity, and has also established activities in marine biodiversity.

The Secretary drew specific attention to Annex 4 of the Action Paper which presents an outline of a TEMA strategy to respond to capacity building needs identified in Chapter 17, Part E, of Agenda 21. He stressed the need for the IOC to elaborate such a strategy and put serious effort into related TEMA development.

The Executive Secretary of the UN FCCC/INC Secretariat, the interim Climate Change Secretariat, Mr. M. Zammit Cutajar, informed the Executive Council of the status of the Convention, the forthcoming INC sessions, the first session of the Conference of the Parties, and associated issues concerning commitments, adequacy and finances. He expressed great satisfaction with the interaction with IOC, and emphasized the important role of the IOC in scientific assessments of the role of oceans in climate change, the need to bring related information through the IPCC to the Convention, as well as directly. He also referred to the importance of capacity building and TEMA, and that the IOC should become a partner with the Convention. He welcomed continued co-operation with the IOC.

The Chairman of the Committee for TEMA, Professor M. Vigneaux, informed the Council of recent developments of the programme. He emphasized networking and initiation of co-operation with the European Union. He recalled the Conference on Coastal Change 1995, and the important role of TEMA in capacity building with respect to coastal zone research and linkages to integrated management.

The Chairman structured the subsequent debate under the following sub-headings.

#### **Framework Convention on Climate Change (FCCC)**

**The Executive Council emphasized** the importance of a strong link for the IOC to the United Nations Framework Convention on Climate Change and its Secretariat, and expressed appreciation to the Executive Secretary of the interim Climate Change secretariat for being present and for his presentation. **The Executive Council requested** the Secretary IOC to prepare an in-depth report on climate-related issues with respect to the IOC, in relation to the Convention, the IPCC and the WCP, to be presented to the next Assembly. **The Executive Council furthermore urged** Member States to ensure national co-ordination and information on these matters. **The Executive Council endorsed** the continued arrangements of co-operation between IOC and the interim Climate Change Secretariat.

The Representative of WMO explained the working procedures of the IPCC. **The Executive Council directed** the Secretary IOC to ensure association of the IOC with relevant IPCC working groups.

#### **Convention on Biological Diversity**

**The Executive Council agreed** that marine biodiversity is an area of great interest to IOC, e.g., in view of the great need for research in this subject area in the interest of IOC basic programmes. Several Delegates expressed their appreciation to the Secretary IOC for providing participants with an updating of the Convention on Biological Diversity. They also noted that IOC is in a position to play an important role with respect to the Convention on Biological Diversity, since some issues are strongly related to other IOC programme areas such as OSLR-HAB, integrated coastal zone management, marine pollution, and capacity building.

**The Executive Council confirmed** the need for IOC to progressively become more involved with marine biodiversity. It noted that the Second Session of the Intergovernmental Committee on the Convention on Biological Diversity, Nairobi (Kenya), 20 June-1 July 1994, had expressed strong interest in the marine component of biodiversity, as well as the invitation to UNESCO and its IOC to consider the possibility of supporting the establishment of the permanent Secretariat to the Convention, jointly with other UN Agencies. **The Executive Council also encouraged** informal association of IOC activities with the UNESCO-IUBS-SCOPE Diversitas Programme. In this context, the wide coverage by OSLR of various activities may require a re-consideration of its name.



**The Executive Council requested** the Secretary IOC to maintain contacts with the Convention and its interim secretariat. It also emphasized the need to seek co-operation in this context with regional bodies, and be associated with, or initiate pilot studies. Although the OSLR programme provides the right base for the association of IOC with marine biodiversity questions, the widening of the OSLR programme in this context may require an adjustment of the name of the OSLR programme. **The Executive Council stressed** the important role that IOC can play in related capacity building.

#### **Agenda 21, TEMA and Capacity Building**

**The Executive Council fully endorsed** the series of follow-up actions already taken by IOC. It stressed the importance of providing appropriate scientific information to coastal zone managers.

**The Executive Council instructed** the Secretary IOC to develop a training programme on integrated coastal zone management for the benefit of managers, decision-makers and technicians who are actually involved in coastal management and to submit a draft programme at the next IOC Assembly.

Many Members stressed the fact that national capabilities to implement activities specified by UNCED and UNCLOS could be developed through comprehensive training programmes, and pointed out the need to modify the TEMA Programme in accordance with requirements stated by UNCED and UNCLOS. Marine research capabilities can only progress by the provision of adequate facilities. IOC should assist its Member States, if requested, to identify suitable facilities, and help formulate extra-budgetary projects.

In welcoming Annex 4 of the Action Paper, Members also emphasized the need to identify what the TEMA programme of IOC cannot do (e.g. long-term fellowships, infrastructure) and to clearly identify what it can do (e.g. advice to Member States, donors, awareness of importance of oceans). The need for extra-budgetary support for capacity building was emphasized, and the possibility of using regional centres in this context. The need for a stronger integration of UNESCO marine science related activities, e.g. TREDMAR, was stressed. In this context the floating university approach was also mentioned.

Delegates from Canada, Germany, Japan and the Russian Federation informed the Executive Council that they would facilitate training opportunities to scientists from developing countries and members/delegates from China, India, Indonesia, Nigeria and Venezuela expressed their willingness to host training courses at their research organizations.

The Delegate of Venezuela called for effective support to teaching and training matters in the framework of UNCED '92 conclusions and recommendations concerning marine coastal areas and natural resources, to include long- and short-term scholarships, infrastructure and equipment.

**The Executive Council expressed** general support for the ideas presented in Annex 4 of the Action Paper, and **decided that** an intersessional *ad hoc* group of 3 to 5 experts should complete the study taking into account the comments of the Council. It should report to the next Assembly. It should also analyze TEMA resource requirements and the relationship of the programme to capacity development, including the relevant components of marine science related issues.

**The Executive Council instructed** the Secretary to report to the Assembly on the outcome of the ECOSOC and the General Assembly's considerations of the proposal for 1998 as the International Year of the Ocean, and propose actions to involve the scientific community in this endeavour.

The Representative of UNEP informed the Executive Council that his Organization has increased emphasis on integrated coastal area planning and management and control of marine pollution from land-based sources and impacts of human activities. He further informed the Executive Council that UNEP approved the 75% budget allocation i.e., (i) integrated coastal area management in the framework of regional programmes; (ii) control of marine pollution from land-based sources; (iii) climate change and sea level rise; and (iv) marine living resources. He stressed the need for close co-operation between UNEP and IOC to avoid duplication of effort. He also informed the Executive Council that UNEP would work jointly

with UNESCO and IOC in the preparation for 1998 as the International Year of the Ocean.

Referring to UNCLOS, the Representative of IHO recalled the task assigned to his Organization by the Convention on the Law of the Sea, and emphasized the efforts made to build up a series of training courses for hydrographers. He proposed that the data-base of bilateral and international aid agencies and organizations developed by IHO could be a good source of information to set-up a systematic training programme. He proposed increased co-operation with his Organization and IOC in the field of training programmes.

The Representative of CPPS requested IOC's help and collaboration to prepare plans for the development of research on non-living marine resources, in particular those concerning geology and marine geophysics; he noted the existence of a joint group of experts, and proposed that the regional programme be reinforced.

The Representative of ICES informed the Executive Council of the work of his Organization, including marine scientific research in the North Atlantic. He emphasized the interest of ICES in widening its co-operation with IOC, also in the context of the follow-up to UNCED.

**The Executive Council reiterated** its instruction to the Secretary IOC to continue close co-operation with relevant organizations and to further develop such co-operation in appropriate cases.

## 7. STATUS AND DEVELOPMENT OF THE IOC

The Chairman introduced the item referring to the Action Paper (IOC/EC-XXVII/8, paragraphs 50-53) and Document IOC/EC-XXVII/14. He noted that in the latter, the arguments for the 3% subvention level from UNESCO are presented in draft form, as well as the proposed responsibilities and roles of the Officers, as requested by Resolution XVII-20. He finally draw attention to the action requested from the Executive Council (Document IOC/EC-XXVII/8, para.54).

Sixteen delegations provided statements on the item, bringing out several basic issues, summarized as follows:

- increased autonomy within UNESCO must not result in increased administrative costs; possible additional support must be directed towards strengthening programme implementation, and TEMA is to be seen as a priority;
- Resolution XVII-20 has had some effect on this session of the Executive Council in the form of concise documentation. However, the Executive Council must become more executive and less narrative; national reports belong more to the Assembly than to the Executive Council;
- justification for the 3% subvention level should include the role of IOC as the marine science arm of UNESCO, and its role in the follow-up to UNCED;
- the Officers should participate in all major activities within their fields of responsibility and should report on their experiences to the Assembly; an intersessional Officers' meeting is required;
- a report on further progress in the follow-up to DOSS must be made in good time before the next Assembly;
- request to Secretary IOC to prepare a solid background paper on resource requirements of the IOC to be presented to UNESCO and to the Assembly, with more detail than in present documents and to include an analysis of these requirements;
- strengthening of the regional subsidiary bodies and their programme implementation, with possible increase of resources;
- the need for dissemination of more information about the IOC at the national level;

- in favour of the increased status of autonomy within UNESCO; interest in and support of the proposal that the IOC administrative status be similar to that of IBE and IIEP;
- the possibility, in the future, of consolidation of IOC within UNESCO, under an intergovernmental agreement;
- emphasize the role of IOC as a competent international organization under UNCLOS;
- emphasize the role of IOC within the UN System as a joint specialized mechanism dealing with marine science, ocean services and related training, education and mutual assistance;
- the title of the Secretary to be changed to Executive Secretary, Executive Director or General Secretary, and the level up-graded to ADG level;
- re-submission to the Director-General of the request for the 3% level of support, together with the list of Member States;
- the role of the IOC in relation to UNCLOS justifies increased support from Member States, from UNESCO and from other UN organizations in view of IOC's responsibilities as a competent international organization;
- should use and relate to UNCED follow-up requirements more in securing further resources;
- should endeavor to obtain matching support from Member States, corresponding to the support from UNESCO, and at the same level of percentage, since our major problem is a financial one, and since even if we obtain the 3% level of support, there will still be a considerable shortfall on what is required;
- the UNESCO General Conference and Executive Board must be kept more informed about what the role of IOC, its special status and how it works, e.g. including also non-Member States of UNESCO;
- the problem of IOC autonomy should not overshadow primary concerns relative to the resource situation; additional resources are required.

**The Executive Council fully endorsed** the support to the IOC from UNESCO at the level of 3% of the UNESCO budget. **The Executive Council supported** the proposal for obtaining administrative arrangements for the IOC similar to those for the IBE and IIEP, and the application of such arrangements on an experimental basis for 1995. **The Executive Council emphasized** that an increased autonomy of the IOC must be achieved within UNESCO. **The Executive Council decided** that an intersessional *ad hoc* group should be established, consisting of the IOC Officers, supplemented by 2 or 3 other experts, so as to cover the required expertise. The group should prepare a detailed study of the financial basis for the IOC, and address as required pending matters under Resolution XVII-20. A report should be presented to the next Assembly.

The Secretariat was requested to prepare a more detailed analysis and justification for the 3% level subvention, taking into account the comments made by the Executive Council. This study should be delivered to the Director-General so as to be taken into account in the draft 28 C/5 for the next biennium, both in regard to the unified structure of the programme and its funding.

With respect to Part II of the Annex to Resolution XVII-20, the following comments were made:

- the feasibility of developing a pledging system for the IOC within UNESCO could be further studied;
- concern about geographical distribution as regards the Executive Council: as possible UNESCO and UN System revisions are expected, it would seem appropriate to wait until further adjustments have been agreed upon in the UNESCO; possibly use the same approach as the UNESCO Executive Board;

- the revised draft rules of procedure should be polished in light of these comments and delivered to the Assembly;
- statutes need further studying.

These four issues should also be reported on to the next Assembly.

## 8. **IOC IN RELATION TO THE UN CONVENTION ON THE LAW OF THE SEA**

Prof. Alexander Yankov, IOC Consultant, introduced the item, referring to the documents: IOC and UNCLOS: Responsibilities and Actions (IOC/EC-XXVII/15), Action Paper (IOC/EC-XXVII/8) and IOC/EC-XXVII/Inf.6.

He first provided updated information on the consultations of the Secretary-General on outstanding issues relating to deep seabed mining provisions of the United Nations Convention on the Law of the Sea. He informed the Executive Council that an agreement had been achieved between parties. This agreement would be presented to the resumed 48th Session of the UN General Assembly, New York, 27-29 July 1994 and opened for signature. He also informed the Executive Council that Germany and Australia had decided to ratify the Law of the Sea Convention by 16 November 1994, the day for the coming into force of the Convention, and that the United States had also decided to sign the Agreement. It is generally predicted that the number of ratifications will double by the end of the year. These latest developments on the law of the sea will greatly improve the universality of the Convention. With the imminent coming into force of the Convention, IOC is facing a new phase in its development.

Introducing document IOC/EC-XXVII/15, he pinpointed the responsibilities of IOC explicitly singled out by the Convention to assist in the work of the Commission on the Limits of the Continental Shelf and of the Special Arbitral Tribunal; the leading or major role as a competent international organization in marine scientific research, ocean services and capacity building; and the contributory or advisory role in the work of other international organizations. He also suggested the priority areas for the adjustment of the policy, operation and statutes of the IOC under UNCLOS, and emphasized that this adjustment should be made in the framework of DOSS. In this context, he emphasized that IOC should define its immediate and short-term tasks and medium and long-term tasks in light of the different categories of roles and responsibilities.

**The Executive Council expressed** its appreciation to Prof. Yankov for his contribution to the preparation of this useful document which serves as a basis for further study.

**The Executive Council realized** the urgency of the tasks entrusted to the IOC by the UNCLOS and gave its full support to the IOC Secretary to take immediate action to fulfil its short-term responsibilities. Considerable concern was expressed regarding the financial and staffing restrictions of the IOC Secretariat to effectively fulfil these responsibilities, and the Director-General is called upon to endeavour to ensure adequate resources for the IOC to take up its responsibilities as a competent international organization under the UNCLOS.

**The Executive Council stressed** the importance of co-operating with other international organizations and mechanisms, including IMO, UN(DOALOS) and, in the future, the International Sea-Bed Authority, in discharging its responsibilities under the UNCLOS. In this connection, GEBCO, co-sponsored by the IOC and the IHO, is recognized as a good mechanism to provide scientific advice to the Commission on the Limits of the Continental Shelf. A list of experts should also be drawn up and maintained by IOC, in the field of marine scientific research for use in special arbitration.

Views were expressed that the IOC role in relation to UNCLOS could be combined with on-going work regarding the study on the development of the IOC. However, several delegations advised against this approach at the present time.

The Representative of IMO pointed out the important role of the IOC in helping the States to define, from the point of view of marine sciences, dumping sites as required by the London Convention 1972. He informed the Council that IOC, in conjunction with IMO, has been drafting a

Convention on the Ocean Data Acquisition System (ODAS) for some 10 years, but due to the lack of interest of the IMO Member States, this item has been deleted from the agenda of recent IMO Assemblies. He expressed the hope that IMO would be involved in IOC endeavours in regard to ODAS.

The Representative of IHO introduced their work in relation to UNCLOS, particularly on the definition of baseline and the continental shelf through geodetic studies. He expressed willingness to co-operate with the IOC in serving the Commission on the Limits of the Continental Shelf through GEBCO.

The Representative of the United Nations, pointing out the significance of the imminent coming into force of the UN Convention on the Law of the Sea, stressed the major roles and responsibilities of the IOC in providing technical assistance to coastal States in carrying out marine scientific research, the dissemination of marine scientific information and data, as well as the advisory role, particularly in relation to the implementation of article 76. She referred to the recent communications between the UN and the IOC Secretariat concerning the implementation of the Law of the Sea and wished to see on-going co-operation expanding, in view of the coming into force of the Convention. She also stressed the general role expected from the Secretariat of the UN Division of Ocean Affairs and the Law of the Sea.

**The Executive Council decided** that an "*Ad hoc* Intersessional Working Group on IOC Responsibilities and Actions in Relation to UNCLOS" be set up to further study the evolving roles and responsibilities of the IOC as a result of the UNCLOS. A sessional working group was set up, under the Chairmanship of Brazil, to define the terms of reference of the intersessional working group.

The *ad hoc* Intersessional Working Group will prepare a report to the Eighteenth Session of the IOC Assembly, in accordance with the following Terms of Reference:

A. MANDATE

The Group should identify and recommend actions and consider the possible implications for IOC of:

- (i) Firstly and most urgently, the UNCLOS provisions which explicitly single out IOC as a competent international organization;
- (ii) Secondly, the UNCLOS provisions which tacitly mention IOC when referring to the "competent international organizations";
- (iii) Thirdly, the UNCLOS provisions which refer generally to MSR.

In all the above the need for addressing TEMA activities must be recognized.

B. FRAMEWORK

The Group shall carry out its functions strictly according to the following rules:

1. Procedural

- (i) the Group should have a multidisciplinary composition of experts in their personal capacity;
- (ii) the Group will perform its work mostly by correspondence;
- (iii) the final report of the Group should be made available to the Secretariat with sufficient time to allow for its circulation in advance of the Assembly.

2. Substantive

- (i) proposals should take into account IOC's objectives and functions as defined in its Statutes and Rules;
- (ii) the Group will take into consideration the competence of the organs to be created under UNCLOS and of other existing UN bodies;
- (iii) proposals must respect coastal states' rights as defined in UNCLOS and, in particular, those related to the general principle of previous consent to activities in

- (iv) the EEZ and on the continental shelf;  
in carrying out its tasks, the group should take into account, as far as possible, all documents prepared for the subject area under consideration, including those by the UN Division for Ocean Affairs and the Law of the Sea, and, in particular, the "Guide to the Implementation of the Relevant Provisions of UNCLOS".

9. **IOC DRAFT ACTION PLAN AND INPUTS TO THE FOURTH MEDIUM-TERM PLAN OF UNESCO, 1996-2001**

The Secretary IOC introduced this agenda item, referring to Documents IOC/EC-XXVII/8, Annex 1 and IOC/EC-XXVII/14. He recalled that the Director-General, in his opening speech, had stated that the next Medium-term Plan will lay particular stress on promotion of a culture of peace and human resource development through education. He also informed the Executive Council of the Circular Letter of 8 March 1994 (No.3345) from the Director-General on the subject of the Medium-term Plan 1996-2001 and the Draft Programme and Budget for 1996-1997. This letter presents basic ideas for the development of the Medium-term Plan, including consultations on a regional basis with National Commissions. A final inter-regional consultation is being held in Portugal, 26-30 July 1994. The Secretary considered it important that IOC considerations and inputs be presented at the inter-regional consultation.

The Secretary IOC briefly reviewed Annex 1 (IOC Contribution to the Fourth UNESCO Medium-term Plan 1996-2001) of the Action Paper. He requested the advice of the Executive Council concerning the approach and strategy taken in that document, and as regards further development. He also recalled the joint statement by the chairpersons of IOC, IHP, IGCP and MAB delivered to Commission III of the 27th UNESCO General Conference, which had been circulated to all Member States in IOC Circular Letter No. 1400 (9 December 1993).

The Secretary IOC also introduced Document IOC/EC-XXVII/8 Annex 2 : Proposed Methodology for an Evaluation of Programme Implementation in Selected Region(s). Noting that the evaluation would cover the IOCARIBE region, he recalled the decision of the Seventeenth Assembly on this matter and the subsequent decisions in this respect of the 27th General Conference. He explained that this evaluation is related to required UNESCO evaluation, and is not related to the statutory evaluations of IOC subsidiary bodies and related programmes to be carried out by the Assembly, and emphasized in the DOSS report. He drew the attention of the Executive Council to the timetable and terms of reference for the evaluation as given in the Annex 2 to the Action Paper. Finally, the Secretary IOC proposed to the Chairman that the discussion be divided in two parts: on evaluation and on the Medium-term Plan, respectively.

**The Executive Council concurred** with the need for programme evaluation. One delegation stressed that the programme formulation should include evaluation with respect to UNESCO and provide a timetable for programme progress for evaluation and that, as far as possible, an interim evaluation should be conducted in order to facilitate real-time review of the programme. One observer delegation stressed the point that the full evaluation proposed by DOSS should be carried out, and an analysis be presented to the next Assembly.

Bearing in mind that the UNESCO evaluation exercise on IOCARIBE would offer an opportunity for experts to visit all IOC Member States in the region, **the Executive Council agreed** that a study of the mechanisms between national IOC contacts and those of other related intergovernmental organizations should be an integral part of the evaluation.

**The Executive Council endorsed** the proposed methodology for the UNESCO evaluation exercise for IOCARIBE and **requested** the Secretary to proceed accordingly.

Several delegations commented on the strategic document for the Medium-term Plan, and commended the Secretary for a lucid and concisely written document, which, by and large, covers the salient points. Several proposals and clarifications were made which should be taken into account in the further development, which can be summarized as follows:

- the need to further emphasize that we are in a transitional period, with stress on interdisciplinarity, intersectoriality, with new partners and emerging institutions, which will

also influence our financial basis, e.g. the various Conventions;

- the two essential frameworks are provided by UNCLOS and UNCED follow-up;
- a need to reshape the existing, traditional sectorial institutions to meet the new challenges, new conditions and partners, which means that we also need a new category of human resources, and we should contribute towards the establishment of such resources;
- the need to consider the possibility to elevate regional subsidiary committees to the level of sub-commission status, and strengthen these regional bodies;
- the Fourth UNESCO Medium-term Plan will be a strategic document, as yet unwritten; the IOC document should also be strategic, and should use the experience of UNESCO from the previous Medium-term Plans;
- reference must be made to the interaction and co-operation with other environmental programme areas, as well as to the Joint Statement of the chairpersons, which was supported;
- the IOC should have its own identified part in the UNESCO Medium-term Plan;
- the strategy document in Annex 1 of the Action Paper should be more focussed and take into account the need for certain priorities, which should also be linked to evaluation plans;
- the development of our future plan must take into account development and emphasis in UNESCO, and the need to be in step with this development;
- there is a need to include a reference to IDNDR and our natural disaster reduction programme, especially tsunamis warning system;
- emphasis is shifting from the open ocean to the coastal zone, which also implies emphasis on regional co-operation and mechanisms, and the strengthening of IOC regional subsidiary bodies;
- we need to define the unique role IOC can play in relation to long-term systematic observations on a well-founded scientific basis and adjusted to society needs, with related capacity building;
- we need to consider the IOC supporting scientific and technical role for other organizations and analyze more their needs and draw on their expertise and potential input to the interests of the IOC;
- the S in UNESCO stands for Science, and we must maintain concern about science, which should be kept very high in the IOC;
- interdisciplinarity and intersectoriality should not allow downgrading of the basic disciplines, which form the basis for any interdisciplinarity;
- need to give more emphasis to the follow-up to UNCED, including marine biodiversity and science for management of marine ecosystems; and include more emphasis on the role of science for sustainable development;
- regional co-operation should include shared use and support of infrastructure and equipment; existing institutions should be maintained and built on; and these should be integrated in the IOC regional plans;
- the Medium-term Plan must include more visibly the actions of the IOC with respect to Small Island Developing States, for which the IOC has already carried out several activities; this subject area is included in Chapter 17 of Agenda 21;

- existing IOC programmes are very inter-linked, and the very nature of ocean studies now implies an increased interdisciplinary approach.

**The Executive Council decided** that the Chairman should transmit the message of the draft IOC contribution to the UNESCO Medium-term Plan to the Director-General and the inter-regional meeting in Lisbon, 26-30 July 1994, through a suitable letter. He would base this on Annex 1 of the Action Paper. The Delegate of Portugal expressed his willingness to inform the meeting in July, and **the Executive Council gratefully accepted** this. The message should also be transmitted to the Executive Board of UNESCO, together with a plea for a 3% level subvention.

**The Executive Council emphasized** that IOC's programmes should be visible in the UNESCO Medium-term Plan, and stressed that the special status of IOC should be expressed therein.

**The Executive Council decided** that in the further development of the IOC contribution to the Medium-term Plan, and possibly its own version, the Secretary should ask the Officers for advice, and possibly consult also with the Chairmen of the IOC regional subsidiary bodies. A completed paper should be presented to the next session of the Assembly.

#### 10. ARRANGEMENTS FOR THE TWENTY-EIGHTH SESSION OF THE EXECUTIVE COUNCIL AND THE EIGHTEENTH SESSION OF THE ASSEMBLY

The Secretary introduced the item, referring to Document IOC/EC-XXVII/8, paragraphs 73 to 75. **The Executive Council confirmed** the dates of the Eighteenth Session of the IOC Assembly, 13-27 June 1995, and of the Twenty-eighth Session of the Executive Council, 12 June 1995, at UNESCO Headquarters, Paris. **The Executive Council agreed** that the possible informal preparatory consultation on a substantial report from the *ad hoc* inter-sessional working group on the follow-up to DOSS (cf. para.150) and that on the role of IOC in relation to UNCLOS (cf. para.164) could be carried out, if so desired, in a half day, 12 June 1995. This preparatory consultation would be open to all Member States, with the aim of facilitating the subsequent debate of the items by the Assembly, including the possible establishment, at an early stage, of *ad hoc* sessional working groups.

**The Executive Council concurred** with the proposed theme for the Bruun Memorial Lectures, "Results and Applications, including the socio-economic ones, of the TOGA Programme". **The Executive Council noted** that this could also cover aspects of the development of GOOS. Finally, **the Executive Council** was informed and **took note** of the plans to organize the I-GOOS-II meeting before the Assembly.

#### 11. ADOPTION OF RESOLUTIONS, SUMMARY REPORT AND CLOSURE

**The Executive Council adopted** the Summary Report of the Session and the associated Resolutions as given in Annex II.

The Chairman expressed his thanks to the Secretary IOC and to all the staff working in the organization of the Executive Council Session, and referred, in particular, to Mme. Dombret and the interpreters. He thanked the Members of the Executive Council for their enormous contributions, the good spirit of work and co-operation. He charged them to carry out the follow-up actions. He closed the Session at 16.30 on 12 July 1994.



**ANNEX I**

**AGENDA**

- 1. OPENING**
- 2. ADMINISTRATIVE ARRANGEMENTS**
  - 2.1 ADOPTION OF THE AGENDA
  - 2.2 DESIGNATION OF THE RAPPORTEUR
  - 2.3 CONDUCT OF THE SESSION, TIMETABLE AND DOCUMENTATION
- 3. REPORT OF THE SECRETARY ON INTERSESSIONAL ACTIVITIES**
- 4. PROGRAMME AND BUDGET**
- 5. PROGRAMME MATTERS REQUIRING DECISIONS BY THE EXECUTIVE COUNCIL**
  - 5.1 OCEAN SCIENCE IN RELATION TO LIVING RESOURCES: THE IOC-FAO INTERGOVERNMENTAL PANEL ON HARMFUL ALGAL BLOOMS (OSLR-HAB)
  - 5.2 GLOBAL INVESTIGATION OF POLLUTION IN THE MARINE ENVIRONMENT (GIPME-VIII)
  - 5.3 INTERNATIONAL OCEANOGRAPHIC DATA AND INFORMATION EXCHANGE AND RELATED MATTERS
  - 5.4 GLOBAL OCEAN OBSERVING SYSTEM (GOOS) AND GLOBAL CLIMATE OBSERVING SYSTEM (GCOS)
  - 5.5 TSUNAMI WARNING SYSTEM: ITSU AND IDNDR CONFERENCE
- 6. FOLLOW-UP TO UNCED INCLUDING TEMA AND CAPACITY DEVELOPMENT**
- 7. STATUS AND DEVELOPMENT OF THE IOC**
- 8. IOC IN RELATION TO THE UN CONVENTION ON THE LAW OF THE SEA**
- 9. IOC DRAFT ACTION PLAN AND INPUTS TO THE FOURTH MEDIUM-TERM PLAN OF UNESCO, 1996-2001**
- 10. ARRANGEMENTS FOR THE TWENTY-EIGHTH SESSION OF THE EXECUTIVE COUNCIL AND THE EIGHTEENTH SESSION OF THE ASSEMBLY**
- 11. ADOPTION OF RESOLUTIONS, SUMMARY REPORT AND CLOSURE**

ANNEX II

**RESOLUTIONS**

No.	Agenda Item	Title
1	3	Establishment of an IOC Regional Secretariat for the Sub-Commission for the Western Pacific (WESTPAC)
2	4	Programme and Budget for 1994-1995
3	5.1	Second Session of the Joint IOC-FAO <i>ad hoc</i> Intersessional Panel on Harmful Algal Blooms (IPHAB)
4	5.2	The Marine Environmental Studies Laboratory (MESL) of the IAEA Marine Environment Laboratory, Monaco
5	5.3	Fourth Session of the IODE Group of Experts on Marine Information Management
6	5.4	First Planning Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System (I-GOOS)
7	5.5	Fourteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific

### **Resolution EC-XXVII.1**

#### **ESTABLISHMENT OF AN IOC REGIONAL SECRETARIAT FOR THE SUB-COMMISSION FOR THE WESTERN PACIFIC (WESTPAC)**

The Executive Council,

**Recalling** Resolution XVII-12 adopted by the Assembly, at its seventeenth session, on the IOC Sub - Commission for the Western Pacific (WESTPAC), in particular on the establishment of an IOC Regional Secretariat for WESTPAC,

**Recalling** further Resolution 2.1 adopted by the General Conference of UNESCO, at its twenty-seventh session, which invited the Director-General, *inter alia*, to expand and strengthen the activities of the Office of the Intergovernmental Oceanographic Commission and marine science related issues (IOC/MRI) as well as to strengthen regional programmes and subsidiary bodies,

**Renewing** its appreciation to those Governments which have provided support and voluntary contributions for the establishment and operation of the WESTPAC Regional Secretariat in Bangkok,

**Expresses** its deep concern at the delay in providing the resources necessary to proceed with the establishment of the Regional Secretariat; and

**Invites** the Director-General to provide the balance of the resources necessary to create a post in the Regional Secretariat without further delay.

### **Resolution EC-XXVII.2**

#### **PROGRAMME AND BUDGET FOR 1994-1995**

The Executive Council,

**Recalling** IOC Resolution XVII-19 by which the Assembly approved the proposal on the IOC Programme and Budget for 1994-1995 as a minimal basis for future planning,

**Taking note** of the resolutions of the 27th UNESCO General Conference in regard to Sub-programme II.2.4 on the Intergovernmental Oceanographic Commission (IOC) and Marine Science Related Issues,

**Having been informed** of the adjustments made to the approved UNESCO budget as a whole, which in the case of IOC have resulted in a reduction of funding in the order of \$860,000,

**Calling attention** to the fact that the increasing gap between available resources and those required for effective programme implementation is gradually jeopardizing the viability of many IOC approved programmes;

**Recognizing** that ensuring adequate resources for the IOC is a shared responsibility between UNESCO and the Member States of the Commission,

**Instructs** the Secretary to prepare a coherent set of planned IOC activities corresponding to UNESCO's current priorities in the areas of institutional support and capacity building, with appropriate financial justification, for recovering the reduction of funding to the IOC;

**Requests** the Chairman to present this proposal to the Director-General and, in doing so, to convey the views expressed by the Executive Council in this regard;

**Invites** the Director-General to accord priority to IOC activities when decisions are made to re-distribute any funding that may be available;

**Encourages Member States**, as a matter of urgency, to mobilize funding for programme implementation and support of staff positions through contributions to the IOC Trust Fund and provision of seconded staff;

**Authorizes** the Secretary to implement the programme in the light of available resources and the guidance provided by the Executive Council, in consultation with the Chairman and Vice-Chairmen.

### **Resolution EC-XXVII.3**

#### **SECOND SESSION OF THE JOINT IOC-FAO *AD HOC* INTERGOVERNMENTAL PANEL ON HARMFUL ALGAL BLOOMS (IPHAB)**

The Executive Council,

**Recalling** Resolution XVII-2 of the Seventeenth Session of the Assembly approving the continuation of the Joint IOC-FAO *ad hoc* Panel on Harmful Algal Blooms,

**Having considered** the Executive Summary of the Second Session of the Panel together with the 4 Resolutions and 6 Recommendations adopted at the Session,

**Takes note** of the Executive Summary and the Resolutions,

**Decides** to take the following actions on the Recommendations:

##### Recommendation 1 (IPHAB-II.1) - Staffing of the HAB Programme Office

- (i) **Approves** the Recommendation, with the addition that UNESCO also be urged to provide a regular post for OSLR-HAB;
- (ii) **Urges** Denmark to maintain its staff support to OSLR-HAB, and appreciate the offer of the United States to provide 1/2 of the support for a Senior Assistant Secretary for OSLR;
- (iii) **Urges** further other Member States to consider pooling resources for a post;

##### Recommendation 2 (IPHAB-II.2) - HAB Training and Capacity Building Programme

- (i) **Approves** the Recommendation subject to availability of resources;
- (ii) **Urges** Member States to co-sponsor training activities in cash and kind;

##### Recommendation 3 (IPHAB-II.3) - HAB Science Programme Implementation

- (i) **Approves** the Recommendation and **urges** Member States to actively approach relevant funding agencies for support;
- (ii) **Agrees** to co-sponsor with participating Member States, within the available financial resources, regional and national HAB science planning research workshops;

##### Recommendation 4 (IPHAB-II.4) - Availability of Toxin Standards to Developing Countries

- (i) **Approves** the Recommendation;

##### Recommendation 5 (IPHAB-II.5) - HAB Cooperation in South East Asia

- (i) **Approves** the Recommendation and **instructs** the Secretary IOC to evaluate the need to send representatives of IOC to various workshops;
- (ii) **Urges** Member States to coordinate their HAB activities at the national, regional and international levels;

##### Recommendation 6 (IPHAB-II.6) - Operation of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms

- (i) **Approves** the Recommendation;
- (ii) **Urges** the Secretary IOC to initiate consultations with FAO with a view to obtain a more equitable sharing of costs related to the activities of the joint Panel;
- (iii) **Instructs** the Secretary IOC if possible, to convene the Third Session of the Joint IOC-FAO *ad hoc* Panel prior to the Eighteenth Session of the IOC Assembly;
- (iv) **Requests** the Panel to provide an Executive Summary of its Report, with a proposed Resolution for possible adoption, including estimate of financial implications, to IOC-XVIII.

**Annex 1 to Resolution EC-XXVII.3**

**ACTION PLAN AND IMPLEMENTATION SCHEDULE**

Activity	1994	1995
<b>PROGRAMME SUPPORT</b>  Third Session of the joint IOC-FAO Intergovernmental Panel on Harmful Algal Blooms (IPHAB-III)  Establishment of IOC HAB Science and Communication Centres  Final Report of the IPHAB Task Team on Programme Development		Paris, France  Denmark, Spain  IPHAB-III
<b>EDUCATIONAL ELEMENTS</b>  <b>INFORMATION NETWORK:</b>  IOC newsletter: Harmful Algae News  IOC Manual on Harmful Marine Microplankton  IOC Directory of HAB Experts  <b>TRAINING:</b>  Taxonomy  Toxin chemistry  Monitoring	4 issues  1.ed.  2.ed.  Jena, Germany Aberdeen, UK	4 issues  Copenhagen, Denmark IOCINCWIO  Norway
<b>SCIENTIFIC ELEMENTS</b>  Final Report of IPHAB Task Team on Algal Taxonomy  Final Report of IPHAB Task Team on Aquatic Biotoxins  Regional HAB Science Planning Workshop  ICES-IOC Working Group on the Dynamics of Harmful Algal Blooms  ICES-IOC Workshop on <i>in-situ</i> Growth Rate  IOC-SCOR Workshop on UV-radiation and phytoplankton ecophysiology  SCOR-IOC/NATO Advanced Study Institute (SCOR-IOC WG 97)	Montevideo, Uruguay  Vigo, Spain  Aveiro, Portugal	IPHAB-III  IPHAB-III  Paris, France  Bermuda
<b>OPERATIONAL ELEMENTS</b>  Final Report of IPHAB Task Team on Design and Implementation of HAB Monitoring Programmes  International Workshop on Design and Implementation of HAB Monitoring and Management Programmes		IPHAB-III  Norway

**Annex 2 to Resolution EC-XXVII.3**

**SUMMARY OF FINANCIAL AND STAFF REQUIREMENTS FOR THE BIENNIUM 1994-95  
(in US\$)**

<b>Activity (see Action Plan)</b>	<b>A. Total financial implications of IPHAB-II decisions</b>	<b>B. Estimated available funds (RP and TF)</b>	<b>C. Additional potential extra- budgetary contributions</b>	<b>D. <i>Required extra- budgetary contributions for full programme implementation (A-(B+C))</i></b>
<b>PROGRAMME SUPPORT</b>				
General (excl. Centres) Staff	25.000 2 seconded	8.000 -	4.000 1 seconded	13.000
<b>EDUCATIONAL ELEMENTS</b>				
Network (excl. publication) Training	10.000 210.000	2.000 52.000	95.000	8.000 63.000
<b>SCIENTIFIC ELEMENTS</b>	45.000	9.000		36.000
<b>OPERATIONAL ELEMENTS</b>	40.000	2.000		38.000
<b>TOTAL</b>	330.000	73.000	99.000	158.000

**Resolution EC-XXVII.4**

**THE MARINE ENVIRONMENTAL STUDIES LABORATORY (MESL) OF THE  
IAEA MARINE ENVIRONMENT LABORATORY, MONACO**

The Executive Council,

**Having considered** the Executive Summary of the Eighth Session of the IOC-UNEP-IMO Committee for the Global Investigation of Pollution in the Marine Environment,

**Noting** the continuing requirement for a laboratory capability for the GIPME Programme, particularly to provide access for developing countries to established and proven reference methods and materials,

**Recognizing** that the capabilities of the IAEA Marine Environmental Studies Laboratory fulfill this requirement for the marine pollution programmes of the IOC, UNEP and IMO in the areas of standards, methodology and technical assistance, and that a co-ordinated approach on the part of the U.N. Agencies involved represents the best formula for the functioning of the MESL,

**Being concerned** with the uncertainties of funding and the internal management difficulties of MESL,

**Urges** Member States to make known their views through their national delegations to IAEA regarding the importance of MESL to the continuation of marine pollution investigations and the provision of technical assistance to developing countries; and

**Instructs** the Secretary to consult urgently with the IAEA, UNEP, and IMO to assure the continued financing and able management of MESL.

**Resolution EC-XXVII.5**

**FOURTH SESSION OF THE IODE GROUP OF EXPERTS  
ON MARINE INFORMATION MANAGEMENT**

The Executive Council,

**Noting** the Executive Summary of the Fourth Session of the IODE Group of Experts on Marine Information Management,

**Recalling** Resolution XVII-7 on the Development of ASFIS/ASFA and the IOC Future Role in it, and

**Expressing appreciation** for the actions taken by the IOC Secretary in this regard,

**Decides** to take the following actions on the Recommendations:

Recommendation MIM-IV.1 - Development of Regional Information Networks

- (i) **Approves** the Recommendation;
- (ii) **Urges** Member States to provide support to existing regional marine information management networks such as RECOSCIX-WIO;
- (iii) **Invites** Member States to provide the IOC Secretariat with the necessary extra-budgetary funds to develop pilot-phase regional marine information management networks such as RECOSCIX-CEA;

Recommendation MIM-IV.2 - MIM and the United Nations Conference on Environment and Development (UNCED)

- (i) **Approves** the Recommendation;
- (ii) **Urges** Member States to provide extra-budgetary support to the IOC to enable GEMIM initiatives relevant to the objectives of UNCED, such as the development of links between data and information programmes; the provision of standards for the exchange of information, and interoperability between data and information; and the further development of ASFA with special attention to capacity building in developing countries;

Recommendation MIM-IV.3 - Action Plan of the Group for 1994-1995

- (i) **Approves** the Recommendation;
- (ii) **Urges** Member States to provide extra-budgetary support to the IOC to enable the carrying out of the Action Plan;

Recommendation MIM-IV.4 -Composition of the IODE Group of Experts on Marine Information Management

- (i) **Approves** the Recommendation;
- (ii) **Urges** Member States to nominate experts in Marine Information Management to participate as members of the Group;
- (iii) **Invites** UN Agencies involved in Marine Information Management to participate in the Sessions and activities of the Group;

**Urges** Member States to provide extra-budgetary support to the IOC to enable the further development of ASFIS/ASFA.



**Annex 1 to Resolution EC-XXVII.5**  
**ACTION PLAN AND IMPLEMENTATION SCHEDULE**

ACTIVITY		1994	1995
1.	Development of a directory of training opportunities in MIM	1/94; 12/94	
2.	Drafting of recommendations with regard to possible options for developing countries to obtain scientific literature	6/94	
3.	Study of electronic communication systems	4/94	
4.	Establishment of a GEMIM INTERNET Mailing List	1/94	
5.	Development of an IOC Catalogue of Publications	7/94	
6.	Development of an IOC CD-ROM	4/94-...	7/95
7.	Study of information analysis products	4/94	
8.	Revision of diagnostic procedures	1/94	
9.	Revitalization of the MEDI catalogue	2/94; 6-7/94	7/95
10.	Preparation of a project proposal on a joint project between the Group and the ASFA Board to develop an 'off the shelf' product for the management of bibliographic records	2/94	
11.	Revision of the standard directory structure with reference to the CC	1/94	
12.	Development of a standard structure for an International Directory of Marine Science Libraries and Information Centres	6/94	
13.	Development of a standard structure for Serial Holding List	6/94	
14.	Thesaurus	2/94; 5/94	
15.	MIM Publication Series	continuous	continuous
16.	Monitoring of further developments in document delivery over the INTERNET	6/94	
17.	Preparation of a report on the incorporation of the information component in the GTSPP CD-ROM	3/94	
18.	Development of a Global Directory of Institutions and Scientists	8/94; 12/94	3/95; 7/95
19.	Develop an ASFA-MIM CDS/ISIS data entry user-friendly interface project proposal for submission to the ASFA Board for funding from the ASFA Trust Fund	3/94	
20.	Development of a worldwide list of Marine information related newsletters	1/94	

**Annex 2 to Resolution EC-XXVII.5**  
**SUMMARY OF FINANCIAL AND STAFF REQUIREMENTS**  
**FOR THE BIENNIUM 1994-1995 (in US\$)**

Activity (see Action Plan)	Total Financial Implications	Estimated Available Funds (RP)	Additional potential extra- budgetary contributions	Required extra- budgetary contributions
ACTION 1 (dir. tr. opp.)	2,000	0	0	2,000
ACTION 5 (catalogue)	half-time GS three months	0	0	half-time GS three months
ACTION 6 (CD-ROM)	15,000	0	0	15,000
ACTION 9 (MEDI)	2,000	0	0	2,000
ACTION 10 (ASFA soft.)	6,000	0	6,000	0
ACTION 12 (lib.struc.)	2,000	0	0	2,000
ACTION 13 (ser.struc.)	2,000	0	0	2,000
ACTION 18 (Glob.Dir)	10,000	5,000	0	5,000
ACTION 19 (ASFA int.)	5,000	0	0	5,000
RECOSCIX-CEA pilot project development	40,000	10,000	5,000	25,000
TEMA activities	40,000	4,000	10,000	26,000
GEMIM-V organization	20,000	6,000	0	14,000
ASFA Development	50,000	0	0	50,000
IOC Secretariat Staff	One Professional	One Professional (planned)	0	0
Staff travel	10,000	3,000	0	7,000
<b>TOTALS</b>	204,000	28,000	21,000	155,000

**Note:** Actions 2, 3, 4, 7, 8, 11, 14, 15, 16, 17 and 20 do not require funds for implementation. In these cases Group members have agreed to undertake the activity on a voluntary basis.

## Resolution EC-XXVII.6

### FIRST PLANNING SESSION OF THE IOC-WMO-UNEP COMMITTEE FOR THE GLOBAL OCEAN OBSERVING SYSTEM (I-GOOS)

The Executive Council,

**Having considered** the Executive Summary and Recommendations of the First Planning session of the IOC-WMO-UNEP Committee for GOOS,

**Recalling** Resolution XVII-5 on GOOS by which, the Assembly, *inter alia*:

- (i) agreed that strengthening and accelerated development of existing observational and data management activities should be considered as a priority for GOOS development;
- (ii) recognized that coastal pilot monitoring activities initiated in collaboration with UNEP and WMO were important potential contributions to GOOS;
- (iii) decided to establish an earmarked GOOS/TEMA part of the IOC Trust Fund;
- (iv) urged Member States to contribute to GOOS through the earmarked part of the IOC Trust Fund.

**Stressing** the importance of Member States contributing fully and on a continuous manner to the activities required for international GOOS planning and co-ordination and in particular requiring the full staffing of the GOOS Support Office,

**Noting** with satisfaction that WMO and UNEP have decided to co-sponsor the activities of I-GOOS,

**Decides**, subject to concurrence by the co-sponsoring Agencies and availability of required funds and staff, to approve the five I-GOOS-PS-I Recommendations and to take the following specific actions on each of them in accordance with the established rules of the Commission:

- (a) Recommendation I-GOOS-PS-I.1: Establishment of I-GOOS Strategy Sub-Committee

**Invites** the Chairman of I-GOOS to take the necessary steps, in consultation with the Secretariats of IOC, WMO and UNEP, to establish the Strategy Sub-Committee and initiate its work as soon as possible.

- (b) Recommendation I-GOOS-PS-I.2: Establishment of I-GOOS Intersessional Ad hoc Group on the GOOS Coastal Zone Module

- (i) **Requests** the Chairman of I-GOOS, in consultation with the Secretariats of IOC, WMO and UNEP, to establish an *ad hoc* Intersessional Group on the GOOS Coastal Zone Module;
- (ii) **Instructs** the Secretary to convene a meeting of the *ad hoc* Group in conjunction with the Coastal Zone '94 Conference in Canada, in order to prepare an outline of a strategic plan for the GOOS coastal zone module;

- (c) Recommendation I-GOOS-PS-I.3: Establishment of I-GOOS Panel on Technical Implementation

**Requests** the Chairman of I-GOOS, in consultation with the Secretariats of IOC, WMO, UNEP, to take necessary steps to establish the Panel and initiate its work in 1995.

(d) Recommendation I-GOOS-PS-I.4: Establishment of I-GOOS Panel on Products and Distribution

**Requests** the Chairman of I-GOOS, in consultation with the Chairman of J-GOOS and the Secretariats of IOC, WMO and UNEP, to take the necessary steps to establish the Panel and initiate its work.

(e) Recommendation I-GOOS-PS-I.5: GOOS Programme and Budget for 1994-1995

(i) **Urges** Member States to contribute to the earmarked GOOS/TEMA part of the IOC Trust Fund and to consider seconding specialists to the GOOS Support Office;

(ii) **Invites** the Agencies co-sponsoring I-GOOS and J-GOOS to consider urgently ways and means to increase financial support to GOOS;

(iii) **Instructs** the Secretary to report to the Eighteenth IOC Assembly on the direct support provided to GOOS (as distinct from existing activities such as IGOSS, GLOSS, DBCP, coastal pilot monitoring activities) from: the UNESCO regular programme, including the response to request for a permanent position for a GOOS Support Office director position; the co-sponsoring Agencies; and Member State contributions to the GOOS earmarked Fund as well as seconded personnel.

**Requests** the I-GOOS, at its second session, to give particular attention to the activities related to capacity building and implementing mechanisms as well as to the regional approach to GOOS development and implementation.

**Annex 1 to Resolution EC-XXVII.6**

**ACTION PLAN AND IMPLEMENTATION SCHEDULE**

	Activity	1994	1995
1. 2. 3.	<b>Formulation of the GOOS Strategy</b> Establishment and Activities of the I-GOOS Sub-Committee on Strategy; <i>Ad Hoc</i> Group on GOOS Strategy Data Policy Group	12/94 9-12/94 9-12/94	4/95 1-4/95 1-7/95
4.	<b>Development of GOOS Coastal Zone Strategy</b> Meeting of the I-GOOS Intersessional <i>Ad Hoc</i> Group on GOOS Coastal Zone Module	9/94	
5. 6.	<b>Scientific Design of GOOS and its Modules</b> Activities of J-GOOS Activities of the J-GOOS Panels	5/94 7-12/94	2/95 1-12/95
7. 8. 9.	<b>Establishment of I-GOOS Panels</b> I-GOOS Panel on Technical Implementation I-GOOS Panel on Products and Distribution I-GOOS Panel on Capacity Building		6/95 6/95 6/95
10. 11.	<b>Support of the operational implementation of the Post TOGA Observing System</b> Activities of I-GOOS Panel on Technical Implementation Task Team on Post TOGA Observing System		3-12/95
12.	<b>Activities of I-GOOS</b> Second session of I-GOOS		6/95
13. 14. 15. 16. 17.	<b>Support of GOOS related aspects of existing operational ocean observing and data management systems</b> Activities of GLOSS Activities of IGOSS Activities of DBCP Coastal pilot monitoring activities GOOS regional project in WESTPAC	7-12/94 7-12/94 7-12/94 7-12/94 8-12/94	1-12/95 1-12/95 1-12/95 1-12/95 1-12/95

**Annex 2 to Resolution EC-XXVII.6**

**SUMMARY OF FINANCIAL AND STAFF REQUIREMENTS FOR 1994-1995**

Activity	Total Financial Implications	Estimated Available Funds	Additional Potential Extra-Budgetary Contributions	Required Extra-Budgetary Contributions
<b>I. GOOS Design, Planning, Development</b>				
ACTION 1 Strategy S/C	30K			30K
ACTION 2 Strategy A/G	5K	5K		
ACTION 3 Data Policy G	5K	5K		
ACTION 4 Coastal Panel	30K			30K
ACTION 5 J-GOOS	70K	40K	30K	
ACTION 6 J-GOOS Panels	100K		20K	80K
ACTION 7 Technical Panel	30K			30K
ACTION 8 Products Panel	30K			30K
ACTION 9 Capacity Panel	30K			30K
ACTION 10 Technical Panel	30K			30K
ACTION 11 TOGA TT	10K			10K
ACTION 12 I-GOOS-II	30K	2K		28K
Staff Travel	14K	14K		16K
Staff	6 PS 3 GS	2 PS 1 GS	2 PS	2 PS 2 GS
Sub-Total	430K	66K	50K	364K
<b>II. Support of GOOS-Related Aspects of Existing Operational Ocean Observing and Data Management Systems</b>				
	80K	35K	20K	25K
ACTION 13 GLOSS	90K	42K		48K
ACTION 14 IGOSS	8K			8K
ACTION 15 DBCP	50K			50K
ACTION 16 Coastal P/A	70K			
ACTION 17 WESTPAC				
Staff	4 PS 2 GS	2 PS 2 GS		2 PS
Sub-Total	298K	77K	20K	131K
<b>Total Funds</b>	<b>728K</b>	<b>143K</b>	<b>75K</b>	<b>495K</b>
Total Staff	10 PS 5 GS	4 PS 3 GS	2 PS	4 PS 2 GS

PS: Professional Staff  
GS: General Service

Note: This is a listing of activities with their budgetary estimates.

### **Resolution EC-XXVII.7**

#### **FOURTEENTH SESSION OF THE INTERNATIONAL CO-ORDINATION GROUP FOR THE TSUNAMI WARNING SYSTEM IN THE PACIFIC**

The Executive Council,

**Having considered** the Executive Summary of the Report and the Recommendations of the Fourteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific (ICG/ITSU), Tokyo, Japan, 30 August - 3 September 1993,

**Acknowledging** the progress achieved by the Group in the implementation of the ITSU programme, particularly noting with appreciation the contribution of Chile in the preparation, publication and distribution of the textbooks and methodological instructions for teachers on earthquakes and tsunamis,

**Recognizing** the contribution of the Group to the IDNDR objectives,

**Emphasizing** the importance of the IOC Tsunami Programme to the safety of life and property in the Pacific region; and the necessity to maintain and increase the momentum of the programme,

**Accepts** the Executive Summary and approves the Recommendations of the ICG/ITSU Fourteenth Session;

**Expresses** concern that, in spite of the Recommendations of the Group, the decisions of the previous Sessions of the Executive Council, and the strong support of the Seventeenth Session of the Assembly to the Tsunami Programme, the funds allocated for tsunami activities have not been increased and that only about 25% of the required funds are presently available;

**Urges** Member States to increase their efforts to provide adequate funding for the support of the IOC Tsunami Programme, by financial contributions to the IOC Trust Fund and by bilateral or multilateral assistance to other Member States that have a need for the Tsunami Hazard Preparedness and Tsunami Hazard Reduction projects;

**Requests** the Chairman, with the assistance of the Secretary, to bring to the attention of the Director-General of UNESCO and other relevant UN bodies, the activities of ICG/ITSU as an IOC contribution to the IDNDR, with a view to seeking additional resources from those bodies for ITSU activities;

**Instructs** the Secretary to spare no efforts to ensure the necessary financial support for the implementation of the ITSU projects in accordance with the priorities identified in Recommendation ITSU-XIV.2.

## ANNEX III

### SPEECHES

**A. Opening Address by Mr. Federico Mayor,  
Director-General, United Nations, Scientific and Cultural Organization,  
5 July 1994**

Mr President,  
Vice-Presidents,  
Members of the Executive Council,  
Dear Colleagues and Partners, Representatives of the  
IGOs, Agencies and NGOs,  
Ladies and Gentlemen,

I am very pleased to welcome you to Paris for this Twenty-seventh session of the IOC Executive Council.

The challenges facing the international community in general and international organizations in particular are very considerable at the present time. The global problems of poverty, population and pollution -inseparable from so many other problems of direct concern to IOC- call for major worldwide efforts and investments in favour of sustainable human development. One of the crucial roles of science here is the development of forecasting tools as the basis for sound policy-making. However, I believe that the role of the scientific community goes further than this and that it should be involved in the interpretation of results and in discussions on policy formulation.

The IOC has an important function to play as a policy-shaping forum. An intergovernmental organization cannot be concerned simply with technical matters. Influencing policy - as well as promoting common methods, data exchanges and awareness of the usefulness of science and technology - is a task of equal or even greater importance. We are constantly concerned about limited or inadequate resources, but how can we hope to obtain increased resources for our work if we do not contribute to the shaping of government policy? If the fundamental emphasis of a body such as IOC must be scientific and service-oriented, it should also be concerned with policy issues. I encourage the Secretary of IOC, in his extensive travels to Member States, to pursue his efforts to increase awareness and create dialogue on this and related issues.

Mr Chairman,  
Ladies and Gentlemen,

We are currently witnessing an important shift of emphasis in the international development agenda. Development, it is increasingly recognized, cannot be equated simply with economic growth but also has essential social, cultural and ecological dimensions. Following the Earth Summit in 1992, the World Summit for Social Development to be held in Copenhagen at the beginning of next year will provide important opportunities for the international community to renew its development thinking and adopt new strategies for concerted action in this vital area.

UNESCO, which has long advocated a broader conception of development, is in the process of incorporating these expanded emphases into its next Medium-Term Plan, which will lay particular stress on the promotion of a culture of peace and human resource development through education. The IOC programme fits well into this framework. For it is concerned not only with developing the scientific and technological tools for understanding the environment and predicting change but also with developing the human resources to use those tools. This task -which covers both basic research and the modelling and establishment of systematic ocean and coastal-zone observations and interpretations - calls for global participation of the kind that IOC, with its regional mechanisms, is well placed to organize.



Since I addressed the IOC Assembly in March 1993, the co-ordination mechanism in the UN system for the follow-up to UN CED, Agenda 21, Chapter 17, has been put into place in the form of an ACC Sub-committee. I am pleased that UNESCO is providing the secretariat service for that subcommittee through the IOC. This, of course, constitutes an additional responsibility for the IOC Secretary and staff, but at the same time gives the IOC considerable visibility within the UN system.

Last year, I referred to the important part played by the UNESCO General Conference in the distribution of UNESCO's resources. I suggested that efforts should be made to give greater prominence to the IOC in the General Conference in order to mobilize strong support for its work. I am pleased to report that the actions taken by the Secretary IOC were to a large degree successful. The resolutions of the Assembly found support, including Resolution 20 on the report of the DOSS Study Group. On this basis, I have taken decisions on a number of measures aimed at strengthening the response of the IOC to the needs of Member States. These include the application for a trial period to IOC of arrangements similar to those already approved by the General Conference in regard to the International Institute for Educational Planning and the International Bureau of Education. I intend to put in place the necessary administrative arrangements in the course of this year and to initiate the test period in 1995. A progress report is being provided to you on this matter. I have also been able to make available to IOC the posts I mentioned last year: one professional post - not yet filled - has already been established, together with one general service post.

I would like to conclude with the following remark. One of our major handicaps in tackling current challenges is the inadequacy of our institutions. Building a strong IOC is therefore an important contribution to meeting these challenges. A strong and responsive international institution will inevitably lead to strengthened national institutions, and vice-versa. If we are to address the many threats currently facing us and correct the flagrant asymmetries in a patently unjust world, we cannot proceed on the basis of business as usual. We must commit ourselves to a common ethical goal, identify the rational means for achieving it, make the required investments through the necessary adjustments in our national budgets, and allow nothing to deflect us from our purpose.

You are all part of this vital endeavour, and I wish you a most successful meeting.

**B. Opening address by Professor Manuel M. Murillo**  
**Chairman, Intergovernmental Oceanographic Commission (IOC)**  
**5 July 1994**

Professor Federico Mayor, Director-General of UNESCO,  
Distinguished delegates to the twenty-seventh session of the Executive Council of the  
Intergovernmental Oceanographic Commission,  
Representatives and Observers,  
Ladies and Gentlemen,

I am delighted to extend to you respectful greetings and a cordial welcome to this twenty-seventh session of the Executive Council of the Intergovernmental Oceanographic Commission.

On behalf of the Member States of the Commission, I should like to greet the Director-General, whose presence at this opening meeting fills us with pride and betokens the excellent relations that exist between UNESCO and IOC, which stimulates our commitment to contribute to the attainment of the goals of the Organization.

We are attending this session of the Executive Council fully aware of the importance of our work to the strengthening of the Commission through decisions that expand its various programmes and activities and make them more effective. Our goal is to respond in a timely manner to the expectations of Member States and of the international community at a time when it is particularly important to

strengthen co-operation and co-ordination in order to contribute to knowledge, promote development and contribute to the overall protection of the marine environment.

An exhaustive account of the activities carried out by the Commission goes beyond the scope of this address, since that will form part of our work during the next nine days. I should, however, like to draw attention to some key issues that require a contribution and guidance from the distinguished delegates attending this session.

The process of analysing and monitoring the functioning, structure and development of the Commission within the framework of IOC resolution XVII-20 adopted by the Assembly is essential if IOC is to be geared adequately to the measures formulated by its Member States and those arising from UNCED and from the entry into force of the United Nations Convention on the Law of the Sea (UNCLOS).

That is why the Assembly, when the DOSS report was submitted to it at its seventeenth session, held a major debate and adopted key measures to reaffirm the status of IOC as a body having functional autonomy within UNESCO and a clear mandate to conduct, in an integrated and interdisciplinary way, ocean research, systematic ocean observations, related ocean services and capacity building so as to cover the whole of the ocean including the coastal zone and its interactions with the atmosphere and the land.

Further vital action in the process of consolidating the Commission's functional autonomy, understood as the status that gives it the necessary flexibility to accomplish its objects and priority activities, is guaranteed access to sufficient financial resources for implementing the short- and medium-term programme and for making longer term plans. This guaranteed access to resources includes both the securing of a subvention or financial assistance from the Organization and receipt of the contributions made by Member States within the framework of the measures they propose within the Commission. We hope to continue the dialogue relating to this priority topic with the Director-General in order to find feasible options for reaching a consensus formula. Similarly, it is vitally important that in the context of the Commission's programme Member States should look into the most appropriate means of making the required contributions and, in the case of Member States that are not members of UNESCO, the expected contribution to the IOC Trust Fund.

Such a state of financial stability, which must be accompanied by the necessary professional strengthening of the IOC Secretariat and the upgrading of the post of Secretary, is essential if IOC is to discharge adequately and expediently the responsibilities of a competent international organization for the promotion, co-ordination and implementation incumbent upon it in the context of UNCED and UNCLOS.

In the context of UNCED, it is essential that IOC, with the assistance of Member States, continue and intensify its efforts to take up and respond effectively to the main points of Agenda 21, in particular Chapter 17 with its seven programme areas and the chapters relating to the expansion of the capabilities of Member States, science for sustainable development and international institutional agreements, together with the Convention on Biological Diversity and the Framework Convention on Climate Change, particularly with regard to the evaluation and forecasting of trends in the rise of the sea level and the emission and absorption of carbon dioxide by the ocean.

The co-ordination of objectives and co-operation between international institutions, whether they take place within the Intersecretariat Committee on Scientific Programmes Relating to Oceanography (ICSPRO) or relate to specific programmes and agreements, in particular with WMO, UNEP, IAEA, ICSU, SCOR, CPPS, ICES and ECOR, are crucial factors for the attainment of the goals of UNCED, including support designed to speed up the conceptual development and implementation of the Global Ocean Observing System. GOOS is an exemplary and complex venture involving the combined efforts of all Member States, developing and industrialized alike, to provide the knowledge and information that are needed for integrated ocean management, from coastal areas to the high seas, including the sea bed.

The entry into force of the United Nations Convention on the Law of the Sea (UNCLOS) in November 1994 will mark the beginning of a vital stage in the development of the Commission as the competent international body for marine research and related activities, involving both rights and obligations whose fulfilment will necessitate changes in its functioning and a review of its legal status.

To meet its obligations to the full the Commission will have to focus attention on its ocean science programmes, strengthen its co-ordinating role, with the help of Member States, in implementing the Global Ocean Observing System and its regional and worldwide components, and step up its operations for the development of national capabilities.

This approach will require greater co-operation at two levels - at the level of international organizations, where the ICSPRO machinery and the Committee on Oceans and Coastal Areas (CAC) have an important co-ordinating function, and at the regional level in marine science and technology, where IOC should make use of existing machinery in order to promote scientific co-ordination and technological co-operation. It is particularly important that the Commission undertake an analysis of the UNCLOS general provisions relating to its function and responsibilities, with a view to identifying the regulatory provisions that need to be updated.

An examination of the subjects on our agenda reveals the central integrating role in the management of our affairs of UNCED decisions and the provisions of UNCLOS, to the point where they affect every aspect of the Commission's overall programme and strategy.

In conclusion, I should like to thank the distinguished delegates in advance for the valuable contribution I feel sure they will make to our programme of work through an illuminating debate. In addition, as I have said in previous statements, I sincerely hope that our joint efforts will result in the adoption of decisions that will enable IOC to make an adequate response to the challenges of the future.

Allow me, Mr Director-General, to offer you my most sincere gratitude for the very special support and attention you unfailingly give to our suggestions and decisions concerning the development of IOC. Your understanding and backing are of the highest importance in sustaining our devotion to the work of the Commission, through which we feel certain we are contributing to the achievement of UNESCO's goals.

Qasim

**B. Introduction to the Intersessional Report by Dr. Gunnar Kullenberg  
Secretary, Intergovernmental Oceanographic Commission (IOC)  
5 July 1994**

Mr Chairman, Members of the Council, Ladies and Gentlemen,

It is my duty and pleasure to introduce the Annual Report 1993 under this agenda item. The report is printed in a similar way to that of last year, and the structure follows the guidance given by the Assembly. The report starts with a review of the implementation of the resolutions adopted by the Assembly. I will remark on some of these:

The development of GOOS is a major effort of the IOC, and as you can see from the document EC-XXVII/7, the budget for GOOS is the largest of all the subject area budgets. Still, the resources are not sufficient. The GOOS Support Office is comprised of staff working with different aspects of GOOS: these include IGOSS, GLOSS, and various parts of IODE. This approach is in accordance with the previous decision taken by governments at the Second World Climate Conference and the Assembly of the IOC, that the development of GOOS should build on existing elements and make them deliver for GOOS, but not necessarily absorb or include everything from them. I must emphasize that this

seems to be the only reasonable approach. However, the staffing of the office is not sufficient. There is a need for more professionals. If the Office is going to serve the scientific and technical committee, J-GOOS, this is even more important. The present staff cannot also serve J-GOOS. So, where are we going to get the resources from? There is very limited hope of obtaining more UNESCO posts, even if this has been requested. Shall we re-distribute the existing staff? We have eight UNESCO staff members, one of whom is in the GOOS Support Office, the others are heading other subject-area programmes and covering regional actions and co-operation between IOC and other organizations. One proposal I could make is that the Deputy Secretary IOC take over as head of the GOOS Support Office. However, since his tasks must still be carried out, this would considerably increase the pressure on other UNESCO staff.

GOOS development is also supported by other IOC programmes: GIPME for the health of the ocean module; OSLR for living marine resources; IODE for data management. This seems to be a rational way to use resources and experience, while maintaining the identity of the existing IOC programmes.

In this way, IOC provides considerable support to GOOS. It would not be possible to provide more support without totally stopping other activities and programmes, and without additional resources being provided. The interest of Member States in GOOS has been shown by the secondment by the US, France, and Japan of staff dedicated to GOOS. These secondments have been provided and are working for the intergovernmental part of GOOS. Since there can only be one GOOS, this of course also relates to the scientific and technical aspects of the programme. However, in that area, we now need a concentration of efforts for GOOS. In order to achieve this, further resources are required. Since the intergovernmental mechanisms of the UN, represented by IOC, WMO and UNEP, do not seem to be able to obtain all the required resources, despite UNCED and other efforts, perhaps other existing mechanisms should take the lead for the scientific, technical and economical development of GOOS, such as ICSU and OECD. I propose that the Executive Council give serious thought to this perspective and perhaps decide to formally invite ICSU to take the lead in the scientific and technical parts, and OECD in the economical or cost-benefit analysis. A true alliance could be formed and the leadership shared.

The TEMA programme is not obtaining the strength it needs under the present format. I intend to place one more senior professional in the TEMA unit, but this will not suffice. Since there is need for a new strategy, at least in the context of the follow-up to UNCED, I am proposing one in Annex 4 to the Action Paper to this Executive Council. The TEMA programme has been mentioned there in the context of the follow-up to UNCED and a response to UNCLOS. These are the two guiding frameworks for our work at present. The basic implementation mechanisms are provided by the IOC regional subsidiary bodies, cooperating with others, in particular, UNEP Regional Seas, but also WMO, IMO and FAO regional structures. In regions where we do not have a formally established regional subsidiary body, regional co-operation is pursued on the basis of joint programmes. As you know, one major policy of UNESCO is decentralization - which means that at least 50% of UNESCO's regular programme resources are decentralized to UNESCO regional offices. Clearly, those resources being provided to the IOC must still be used for IOC programme implementation at the regional level. We have achieved a reasonable understanding in the UNESCO administration in this respect, as well as with the Directors of the regional offices. However, this introduces one more layer of bureaucracy to the operation. It also gives emphasis to the IOC regional subsidiary bodies and their programmes since these bodies are the legal authorities deciding how decentralized funds are to be used. An adjusted or renewed TEMA strategy, as outlined in Annex 4 of the Action Paper, would also lend further support to this approach. This newly proposed TEMA strategy would also fit the recently adopted GEF strategy for the GEF component on international water ways which focuses on the regional approach. As you are aware, the new GEF agreement strongly emphasizes the national governmental association with any GEF project, and the need to also associate with NGO's. However, we are maintaining contacts with the World Bank and UNDP in order to be able to facilitate submission of programme proposals. We co-operate with other Agencies in regional GEF projects, including IMO, FAO, WHO, UNEP, IAEA, e.g., in the Caribbean, Black Sea and East Asia - WESTPAC. A progress report on the response to Resolution XVII-15: Regional Black Sea Co-operation Programme is provided in Information

Document IOC/INF-957. This will also be referred to in connection with GIPME (Item 5.2). However, I propose that an *ad hoc* discussion comprised of members of the Black Sea states be arranged.

The new TEMA strategy should also build on subject area programmes and use them. Expertise, networks, and committed institutions exist and provide global science input to the regional components. I have also discussed with SCOR the possibility of using SCOR as the back up body for TEMA when it comes to developing advanced scientific competence. SCOR has responded positively. This should also be drawn into the new TEMA strategy.

The follow-up to UNCED includes many of her actions: preparations for the Lisbon Conference; the International Year of the Ocean 1998; activities in the coastal zone; and specific actions identified in Resolution 18 on UNCED. A separate information document IOC/EC-XXVII/Inf.5 is provided which presents actions in this context. I would like to emphasize the establishment by the Administrative Committee on Coordination (ACC) of a Subcommittee on Oceans and Coastal Areas as the mechanism for the UN system in responding to Chapter 17 of Agenda 21. This Subcommittee addresses specifically Chapter 17, and reports to the Inter-Agency Committee on Sustainable Development, of which UNESCO is a member. The IOC provides the Secretariat for the Subcommittee, which gives responsibility and visibility. The Subcommittee met in Rome at FAO in April and agreed on a work distribution. The IOC is responsible as the sub-task manager for the programme area E: addressing the uncertainties. The Secretary IOC has prepared an outline of the report which has also been sent to the Chairmen of the relevant IOC programmes and committees in order to seek their advice. The report of the ACC Subcommittee as given to the IACSD is available in your documentation for this session as Document IOC/INF-959. I call to your attention the considerable visibility of IOC there. Subsequent to the Sub-committee meeting, an ICSPRO consultation was arranged. This identified a broad range of responsibilities for ICSPRO and firmly agreed on its continuation.

The follow-up to the DOSS report, Resolution XVII-20 of the Assembly, has proceeded well. The General Conference of UNESCO responded very positively to the IOC Assembly resolutions, and on the basis of the support provided by the General Conference, the Director General has decided on certain measures to help increase the effectiveness of the IOC Secretariat to respond to needs of Member States. The relevant information is provided in Document IOC/EC-XXVII/Inf.2, to which I would like to draw your attention. In this document, you will find draft financial regulations for a special account for the IOC which will be used for the provision of the total UNESCO allocation to the IOC on the basis of an individual resolution of the General Conference. The financial model is based on that adopted for the International Bureau of Education and the International Institute for Educational Planning. A trial period involving only IOC Trust Fund and extrabudgetary sources/funds/means is planned for 1995, and the proposal is being transmitted to the Executive Board of UNESCO, Spring 1995 session. It must be noted that this action also implies a transfer of staff resources, and the requirement for proper administrative and accounting functions in the IOC Secretariat through dedicated personnel. Thus, the Council is invited to consider this matter, bearing in mind Resolution XVII-20 of the Assembly and the expressions given by your representatives at the General Conference. The aim should be to establish the most appropriate, effective mechanism, and the implications will include more visibility of the IOC in relation to the UNESCO General Conference. This is very important since it is the General Conference which decides on the allocation of resources.

Other elements of Resolution XVII-20 include the preparation of a draft comprehensive Action Plan, proposed tasks for the Officers, preparation of arguments for a 3% level subvention from UNESCO to IOC, and preparation of an IOC contribution to the next UNESCO Medium-Term Plan. You find these in Document IOC/EC-XXVII/14 and in Annex 1 to the Action Paper. A study has also been requested to be undertaken on the status of IOC seconded staff in the Organization. This has clarified the procedures and status, and the rules are now being tested. With respect to Part II of the Annex to Resolution 20, the responses of Member States were few, only about 10%, to the Circular Letter sent out in May 1993. In accordance with the discussions of the Assembly, we have initiated the review of the rules of procedure. A revised set of rules of procedure prepared by the IOC consultant, Professor A. Yankov, is presented for your information and advice in Document IOC/EC-XXVII/Inf.1.

However, in view of the limited response, no additional meeting has been called as yet. Advice is being sought from the Executive Council. This is, in particular, the case as regards obtaining further resources, as you will see in Document IOC/EC-XXVII/7.

I would like to emphasize the draft Medium Term Plan - Annex 1 to the Action Paper. I consider it to be very important that the IOC has its own identity in the next Medium Term Plan of UNESCO. It may also be wise for IOC to publish separately a more elaborated version of its own Medium Term Plan, which could be more substantial than what would enter into the UNESCO version.

Following the section in the Annual Report on implementation of Assembly Resolutions is a section on Programme Implementation, which should be referred to as required during the subject area discussions. Thereafter follows a section on Co-operation for Development. I would like to emphasize at this point that the co-operation with other bodies and programmes is very extensive, and demands considerable effort and resources. I consider this co-operation and interaction very important in that it provides interfaces with users, with potential funding agencies and with different sectors of society in the Member States. These are indeed the inter-sectoral co-operation and projects UNESCO calls for, and it is in this way that we can gradually build and reinforce IOC as an organization and mechanism with its own identity. Your policy guidance is required with respect to our interaction with bodies like IPCC, CEC and the Contracting Parties for the Conventions adopted at UNCED. These matters are presented in some detail in the sub-section of the Annual Report on the follow-up to UNCED. We are actively pursuing flagship activities identified by the Assembly: GOOS; science programmes addressing uncertainties; capacity building; coastal zones; UN system-wide interagency cooperation; public awareness. It is obvious that these efforts require resources, and dependable resources. I must emphasize, in this connection, the great importance of the young part of the staff in the IOC Secretariat for many of these actions - the Associate Experts and Consultants. It will be very difficult if we do not obtain renewed/replacements for the Associate Experts, and also secondments of young people. A case at hand is the role of the IOC in relation to UNCLOS. It is necessary for the IOC to respond in a proper way to the entering into force of UNCLOS by dealing with specific actions for which the IOC is responsible as mentioned in the text of the Convention. An analysis is presented in Document IOC/EC-XXVII/15, prepared by the IOC Consultant, Professor A. Yankov and the Secretariat. Your guidance is sought. It is my opinion that IOC must take the required actions to follow-up our responsibilities. Through partial secondment from China, an expert is available in the IOC Secretariat to deal with UNCLOS for the time being.

I would like to conclude this policy-oriented overview with some further reflection on resources. In order to draw this to your particular attention, I sent out a Circular Letter to Members of the Council, dated 21 June 1994, which summarizes the situation, and I would urge you to do something about it. You should, as members of this Executive Council, find out from your national contacts what the situation is in UNESCO and what UNESCO's priorities are; how it is in other bodies with which we co-operate, such as WMO, UNEP, FAO, IMO and ICSU, what the attitudes are of donors, international donors such as GEF, UNDP, and national ones in your own country. This will provide a basis for a more realistic approach with respect to the IOC programme and demands. It should be emphasized that the recent UNESCO priorities imply a strong shift away from IOC working procedures. This is clearly evidenced in Document IOC/EC-XXVII/7 to this Executive Council. Under present circumstances, we must help ensure that each action meets several objectives, and that we draw on our existing mechanisms and programmes when responding to new and changing demands. This is what I am attempting to do in all my actions and I am requesting the staff to do the same. National contacts, experts involved and institutions should also have this attitude. However, it appears to me that this is not always the case. An example at hand is GOOS development, notably, the last I-GOOS meeting, or consultation. I am sure we shall hear much more about it. However, there should be no doubt about my views: combinations, interactions in the use of existing resources, is the only way in which we may have at least some chance of meeting our priority obligations.

Finally, I do not believe it is possible to maintain IOC at its present level and increase that level through concentration or re-distribution of existing resources. A commitment towards increasing resources is required from Member States. One approach to this problem is to help obtain additional

resources for the IOC programme implementation from UNESCO through decisions of the General Conference. This is inherent in the proposal for a revised financial basis referred to earlier and presented in Document IOC/EC-XXVII/Inf.2. Of course much work will be required from you at the national level, as well as from the IOC national action addresses, in order to bring IOC, its needs and work, to the attention of the representatives of the General Conference. I would like to recall that the 3% level contribution of the UNESCO budget was endorsed by the Assembly in 1993. In order to obtain a comparative measure, it would be valuable if Member States could evaluate what is being committed nationally to the implementation of IOC-related programmes, including joint programmes such as WCRP, GOOS, GCOS, GIPME and OSLR, at the national level, quite apart from what is being contributed at the international level through IOC and other international mechanisms. Member States may, in the same context, try to estimate the benefits they obtain from their participation in international programmes, regional or global, originating from IOC, including joint programmes.

**ANNEX IV**

**LIST OF WORKING DOCUMENTS \***

IOC/EC-XXVII/1	Agenda
IOC/EC-XXVII/1 Add.prov.	Provisional Timetable
IOC/EC-XXVII/2	Annotated Provisional Agenda
IOC/EC-XXVII/3	Summary Report
IOC/EC-XXVII/4	List of Documents
IOC/EC-XXVII/5	List of Participants
IOC/EC-XXVII/6	Report of the Secretary on Intersessional Activities/ Annual Report 1993
IOC/EC-XXVII/6 Suppl.	List of Circular Letters and IOC Information Documents
IOC/EC-XXVII/7	Status Report on the IOC Programme and Budget
IOC/EC-XXVII/8	Action Paper
IOC/EC-XXVII/8 Annex 1	IOC Contribution to the Fourth UNESCO Medium-Term Plan 1996-2001
IOC/EC-XXVII/8 Annex 1 Add.	" " " " " "
IOC/EC-XXVII/8 Annex 2	Proposed Methodology for an Evaluation of Programme Implementation in Selected Region(s)
IOC/EC-XXVII/8 Annex 3	The IOC Involvement in Climate-Related Activities and Associated Issues
IOC/EC-XXVII/8 Annex 3 Add.	Statement on the Climate Agenda
IOC/EC-XXVII/8 Annex 4	Draft TEMA Strategy to Respond to UNCED, Agenda 21 Chapter 17, Part E
IOC/EC-XXVII/9	Executive Summary of the Second Session of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms (IPHAB-II) and related Draft Resolution
IOC/EC-XXVII/10	Executive Summary of the Eighth Session of the IOC Committee for the Global Investigation of Pollution in the Marine Environment (GIPME-VIII) and related Draft Resolution

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**\* This list is for reference only. No stocks of these documents are maintained, except for the Summary Report.**



IOC/EC-XXVII/11	Executive Summary of the Fourth Session of the IODE Group of Experts on Marine Information Management (IODE-MIM-IV) and related Draft Resolution
IOC/EC-XXVII/12	Executive Summary of the First Planning Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System (I-PS-GOOS-I) and related Draft Resolution
IOC/EC-XXVII/13	Executive Summary of the Fourteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific (ITSU-XIV) and related Draft Resolution
IOC/EC-XXVII/14 Arguments	IOC Strategy, Contribution to UNESCO Medium-Term Plan, IOC Action Plan, Duties of IOC Officers and Subvention
IOC/EC-XXVII/15	IOC and UNCLOS: Responsibilities and Actions
IOC/EC-XXVII/15 Add.	Preliminary Consideration of the Contribution of GEBCO to the UN Convention of the Law of the Sea
IOC/EC-XXVII/Inf.1	Revised Rules of Procedure
IOC/EC-XXVII/Inf.2	Progress Report on Measures to Strengthen the Effective Response of the IOC to the Needs of Member States
IOC/EC-XXVII/Inf.3	IOC and the Convention on Biodiversity
IOC/EC-XXVII/Inf.4	IOC Participation in IDNDR and the World Conference on Natural Disaster Reduction
IOC/EC-XXVII/Inf.5	Progress Report on Implementation of IOC-XVII Resolutions related to UNCED

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ANNEX VI

**REPORT OF *AD HOC* SESSIONAL GROUP MEETINGS TO CONSIDER THE REQUIRED  
RESOURCES FOR THE IMPLEMENTATION OF GOOS**

The first session was devoted to a discussion of GOOS resources. It also included statements from Member States as to the status of their respective national and international contributions to GOOS. It was chaired by the first Vice-Chairman IOC, G. Holland.

Concern was expressed by the USA that a replacement be found for the Director of the GOOS Support Office when the term of the present Director expires at the end of the calendar year. The USA announced the high priority it assigned to GOOS and its continuing commitment to the programme. The USA has supported the Director to the present, together with three other related positions.

France has a national plan and a co-ordinating committee for GOOS made up of the Heads of interested agencies. France also has a national GOOS office and offered to second an individual to the GOOS Support Office.

Japan has already placed an officer in the GOOS Support Office and reported that national planning for the GOOS programme takes place under a small interagency committee and is in the preliminary stages. Changes are taking place to bring some national and regional ocean observational networks up to an operational standard.

Norway has applied for resources from their government to support the GOOS programme. At a national level, that country has a centre for ocean monitoring that provides the focus for GOOS activities.

Brazil has offered to second a staff officer to the GOOS Support Office. The specifics of the specialization are under discussion. Within Brazil the GOOS coordination takes place under the lead of the Department of the Navy.

Australia and Canada have established national committees for GOOS-GCOS. Ongoing studies will produce recommendations for decisions leading to possible funding commitments for their implementation.

The United Kingdom has a national structure for GOOS under the Interagency Committee on Marine Science and Technology. Two sub-committees, one on operational ocean services and the other on cost-benefit studies of GOOS, have been formed. An engineering and science programme has been established to address pre-operational research leading to an operational ocean observation monitoring network. A national GOOS office is already in existence.

Other Member States spoke of their support of the GOOS programme in their respective national communities. India for example has recently funded a centre for ocean modelling. China and Chile reported their willingness to cooperate through national and regional programmes, but that they had not yet established national committees. Developing countries can participate fully in GOOS especially benefitting through the rapid transfer of software and technology. More work is also needed to quantify the socio-economic benefits to developing countries arising from GOOS.

The meeting recognized the need to improve and strengthen existing programmes upon which the GOOS will depend.

Other UN organizations also expressed their respective support. The representative for WMO reported that funds to support GOOS have been identified in the budget and that a proposed increase has been recommended in these funds for the next biennium despite the overall shortage of resources. The funding support was in addition to the seconded offices to the IOC that had related responsibilities in the GOOS area.

The UNEP representative also conveyed the cosponsorship of his organization to GOOS, especially in support of the Health of the Ocean and Coastal Zone modules of GOOS. Under the latter three of six pilot programmes are presently underway and the others are under active consideration for implementation.

The meeting was also informed of the willingness of the OECD to assist the Commission in relation to socio-economic studies of the benefits of GOOS.

The high priority for GOOS was recognized by all participants who emphasized the need for a strong and visible centralized support office within the Commission as well as the acceptance of the need to implement the GOOS programme at national and regional levels. One of the responsibilities of the Support Office was to coordinate the various activities taking place within the GOOS programme. In this regard all Member States were urged to consider ways and means of supporting the GOOS Support Office and all aspects of the GOOS implementation.

The subsequent discussion of the implementation of GOOS and the resources required occupied the remainder of the first meeting and continued into the second meeting requested by over 20 Member States. This special session on GOOS addressed the topic on how to convince governments on practical ways to participate in GOOS activities. It was chaired by the Chairman of I-GOOS, Dr. Michel Glass. He introduced the need to discuss three areas starting with the socio-economic studies, the role of GOOS in governmental commitments to UNCED Agenda 21, Chapter 17, the Framework Convention on Climate Change and the Convention on Biodiversity Conventions and other types of actions that should be considered in the short-term.

The need to identify customers and users of GOOS data and information products on a national and regional basis was emphasized with the need to identify paying customers and activities to be done for the public good and on a long-term basis. In that connection, the offer by OECD to perform general socio-economic studies as well as their offer to assist in smaller scale studies, was noted and encouraged. It was also noted that there is a need to provide specific, practical examples of GOOS-like activities to demonstrate the practicality and capability of operational oceanography. It was deemed necessary to exchange and collect information on such activities.

Capacity building and technology transfer were stressed as a major factor for the success of GOOS. This clarification will be an important part of making the case for the GOOS programme at all levels.

In making a case for GOOS resources, it was recognized that governments would need good arguments to support the GOOS programme in the light of other national priorities. The socio-economic studies already carried out and those contemplated should therefore be supported and disseminated. In particular, national studies by the USA and the UK were cited and the potential international studies on cost-benefits of GOOS and the methodologies for such studies, under the OECD, should be encouraged by the Commission and its Member States. The meeting also noted the up-coming meeting of a related GOOS Working Group meeting in Washington, USA, on 1-3 August 1994. That Working Group will be identifying a list of priority studies to be performed that will be relevant to the climate module of GOOS. In recognizing the importance of these and complementary studies dealing with the other GOOS modules, it was noted that communicating these activities both to and from Member States was important and a key function for the GOOS Support Office.

In relation to the above rationale for GOOS, it was also pointed out that the investment in GOOS is returned through three categories of clients, namely those that are willing to pay directly for services, governments that will invest for the public good and finally the global need for results that are required to assist us to protect the oceans and the planet for future generations. Since GOOS is a global initiative, it follows that its implementation would need contributions and the involvement of all Member States. The capacity building and TEMA aspects for the programme are therefore of high importance.

Another point that was raised concerned regional studies. It was concluded that both pilot studies and socio-economic studies were needed in parallel. Governments would be more convinced of the efficacy of a GOOS programme if successful implementation of such activities could be demonstrated and reported. The USA/Japanese initiative in the Pacific was referred to as such an example.

Returning to the need for resources to support GOOS activities, it was agreed that both at the I-GOOS meeting and at the present Executive Council, there had been a very convincing expression of support from Member States, who singly and collectively had volunteered to take on responsibilities and tasks to support GOOS. For example the UK reported that it was cooperating on three tasks arising from the I-GOOS meeting. On all three there had been rapid progress and very effective communication at little direct cost to the Commission.

One of the tasks initiated at the I-GOOS meeting involved the data policy for GOOS and it was reported that the following objectives were being pursued in that area:

- (i) a short generalized policy statement based on existing policies;
- (ii) an analysis of the more detailed requirements for each module; and
- (iii) an analysis of the issues generated by the trend towards the commercialization of data.

The continuing discussion on the ways to implement the GOOS emphasized the importance of using regional bodies, both those of the Commission and of other UN Agencies as appropriate, to generate interest and participation in the programme. In this regard, using such diverse regional bodies such as the European Commission on the one hand and the North Pacific Science Organization PICES should not be ignored.

Documentation and its usefulness in promoting GOOS was discussed and covered such publications as the GOOS News and a proposed manual for GOOS. All these have importance in maintaining the visibility and integrity of the GOOS implementation.

The above issues will be provided to the GOOS Strategy Sub-Committee for use in the development of the GOOS Strategy and to provide clarification of what GOOS is.

## **ANNEX VII**

### **LIST OF ACRONYMS**

ASEAN	Association of South-East Asian Nations
ASFA	Aquatic Sciences and Fisheries Abstracts
ASFIS	Aquatic Sciences and Fisheries Information System
CD-ROM	Compact-Disk with a Read-Only Memory
CDS-ISIS	Computerized Documentation System/Integrated Set of Information Systems
CEOS	Committee on Earth Observation Satellites
CEPPOL	Joint IOC-UNEP Marine Pollution Assessment and Control Programme for the Wider Caribbean Region
CIDA	Canadian International Development Agency
COMSBLACK	Co-operative Marine Science Programme for the Black Sea
DBCP	Data Buoy Co-operation Panel
DOSS	Ad hoc Study Group on IOC Development, Operations, Structure and Statutes
ECOSOC	Economic and Social Council
FAO	Food and Agriculture Organization of the United Nations
FCCC	Framework Convention on Climate Change (United Nations)
GCOS	Global Climate Observing System
GEBCO	General Bathymetric Chart of the Oceans
GEF	Global Environment Facility
GEMIM	Group of Experts on Marine Information Management
GIPME	Global Investigation of Pollution in the Marine Environment
GLOSS	Global Sea-Level Observing System
GODAR	Global Oceanographic Data Archaeology and Rescue Project
GOOS	Global Ocean Observing System
GTSP	Global Temperature-Salinity Pilot Project
HAB	Harmful Algal Blooms

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IAEA	International Atomic Energy Agency
IAMSLIC	International Association of Aquatic and Marine Science Libraries and Information Centres
IBE	International Bureau of Education
ICES	International Council for the Exploration of the Sea
IDNDR	International Decade for Natural Disaster Reduction
IGCP	International Geological Correlation Programme
I-GOOS	IOC-WMO-UNEP Committee for the Global Ocean Observing System
IGOSS	Integrated Global Ocean Services System
IHO	International Hydrographic Organization
IHP	International Hydrological Programme
IIEP	International Institute for Education Planning
IMO	International Maritime Organization
INC-FCCC	Intergovernmental Negotiating Committee for a Framework Convention on Climate Change
IOCARIBE	IOC Sub-Committee for the Caribbean and Adjacent Regions
IOCEA	IOC Regional Committee for the Central Eastern Atlantic
IOCINCWIO	IOC Regional Committee for Co-operative Investigation in the North and Central Western Indian Ocean
IODE	International Oceanographic Data and Information Exchange
IPCC	Intergovernmental Panel on Climate Change
IPHAB	Intergovernmental Panel on Harmful Algal Blooms
ITIC	International Tsunami Information Centre
ITSU	International Co-ordination Group for the Tsunami Warning System in the Pacific
IUBS	International Union of Biological Sciences
IUGG	International Union of Geodesy and Geophysics
J-GOOS	Joint Scientific and Technical Committee for the Global Ocean Observing System

MAB	Programme on Man and the Biosphere
MEDI	Marine Environmental Data Information Referral System
MESL	Marine Environment Studies Laboratory (IAEA)
MIM	Group of Experts on Marine Information Management
ODAS	Ocean Data Acquisition Systems, Aids and Devices
OSLR	Intergovernmental Committee for Ocean Science and Living Resources
RECOSCIX-CEA	Regional Co-operation in Scientific Information Exchange in the Central Eastern Atlantic
RECOSCIX-WIO	Regional Co-operation in Scientific Information Exchange in the Western Indian Ocean
ROPME	Regional Organization for the Protection of the Marine Environment
SCOPE	Scientific Committee on Problems of the Environment
TEMA	IOC Committee for Training, Education and Mutual Assistance in the Marine Sciences
TIME	Tsunami Inundation Modelling Exchange Project
TREDMAR	Marine Science Training and Education Programme
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Convention of the Law of the Sea
UN(DOALOS)	United Nations Division for Ocean Affairs and the Law of the Sea
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNDP	United Nations Development Programme
WCRP	World Climate Research Programme
WESTPAC	IOC Sub-Commission for the Western Pacific
WMO	World Meteorological Organization