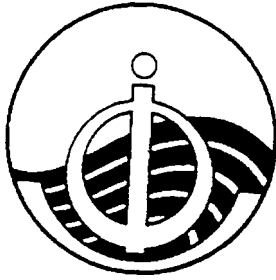


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IOC-XIX/3
Annex II
Paris, 17 July 1997
English only

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)

Nineteenth Session of the Assembly
Paris, 2-18 July 1997

ADOPTED RESOLUTIONS

(SC-97/CONF.216/CLD.20)

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Resolution XIX-1

FOURTH SESSION OF THE IOC INTERGOVERNMENTAL PANEL ON HARMFUL ALGAL BLOOMS (IPHAB)

The Intergovernmental Oceanographic Commission,

Recalling that the IOC, at the Eighteenth Session of its Assembly, through Resolution IOC-XVIII-8 approved the continuation of the Joint IOC-FAO Intergovernmental Panel on Harmful Algal Blooms as the IOC Intergovernmental Panel on Harmful Algal Blooms, with Terms of Reference unchanged,

Considering the Executive Summary of the Fourth Session of the Panel together with the two Resolutions and nine Recommendations adopted at the Session,

Takes note of the "Action Plan and Implementation Schedule" and the "Summary of Financial and Staff Requirements for the Biennium 1998-1999" attached to the Executive Summary;

Decides to approve the following nine Recommendations, subject to the availability of resources:

Recommendation IPHAB-IV.1 - Staffing of the HAB Programme Office

- (i) Approves the Recommendation;
- (ii) Urges Denmark, UK and the USA to maintain their staff support to OSLR and HAB and invites other Member States to consider the possibility of pooling resources for additional posts specifically for HAB;

Recommendation IPHAB-IV.2 - Development of a Global HAB Science Agenda

- (i) Approves the Recommendation;

Recommendation IPHAB-IV.3 - Coordination in the Pacific

- (i) Approves the Recommendation;

Recommendation IPHAB-IV.4 - Working Group) on Harmful Algae in the Caribbean and Adjacent Regions

- (i) Approves the Recommendation;

Recommendation IPHAB-IV.5 - Enhancement of Research on Harmful Algae in Europe

- (i) Approves the Recommendation;

Recommendation IPHAB-IV.6 - Workshop on Management and Mitigation of the Impacts of Harmful Algae

- (i) Approves the Recommendation;

Recommendation IPHAB-IV.7 - ICES-IOC Working Group on Harmful Algal Bloom Dynamics

- (i) Approves the Recommendation;

Recommendation IPHAB-IV.8 - Long-term Observations on Harmful Algae

- (i) Approves the Recommendation;

Recommendation IPHAB-IV.9 - Operation of the IOC Intergovernmental Panel on Harmful Algal Blooms

- (i) Approves the Recommendation;
- (ii) Instructs the Executive Secretary IOC to convene the Fifth Session of the IOC IPHAB prior to the Twentieth Session of the IOC Assembly;
- (iii) Instructs the Panel to provide an executive summary of its report, with a proposed resolution for possible adoption, including an estimate of financial implications to IOC-XX.

Financial implications: see Annex to Resolution XIX-1

Annex to Resolution XIX.1

Summary of Financial and Staff Requirements
for the Biennium 1998-1999 (in US\$)

Activity (see Action Plan)	A. Total financial implication of IPHAB-IV decisions and Recommendations	B. Estimated available funds (Regular Programme and Trust Funds)	c. Additional potential extra-budgetary contributions	D. Required extra- budgetary contributions for full programme implementation [A - (B+C)]
Programme support				
General (excl. Centres)	20,000	10,000		10,000
Staff	2 seconded		1 seconded	1 seconded
Educational elements				
Network (excl. Publications)	12,000	5,000		7,000
Training (incl. Centres)	350,000	210,000		140,000
Scientific elements	45,000	15,000		30,000
Operational elements	70,000	10,000	30,000	30,000
TOTAL	497,000	250,000	30,000	217,000

Resolution XIX-2

OCEAN SCIENCE IN RELATION TO NON-LIVING RESOURCES (OSNLR)

The Intergovernmental Oceanographic Commission,

Recalling that

- (i) the Assembly at its Seventeenth Session adopted Resolution XVII-1, establishing a new coastal zone activities programme through a multidisciplinary approach based on contributions of several IOC programmes including OSNLR,
- (ii) the Assembly at its Eighteenth Session recommended that a plan for the specific development of OSNLR in the framework of the IOC coastal zone strategy be prepared by a small group of experts,
- (iii) the Assembly at its Eighteenth Session further recommended that regional guidelines and manuals on coastal zone management should be prepared within the framework of OSNLR based on appropriate case studies, such as those presented at the Coastal Change Conference, Bordeaux, France, (February 1995),

Recognizing that the UNCED Agenda 21, Chapter 17, emphasizes coastal erosion and siltation as being of particular concern for many developing countries and that a precautionary and anticipatory approach is necessary to prevent the physical degradation of the coastal environment,

Considering that in the framework of OSNLR, the coastal zone in its own right has been recognized as one of the most valuable non-living resources of the ocean ,

Recognizing also that, OSNLR, in co-ordination with other IOC and international programmes, needs to provide scientific inputs to the development of knowledge of physical characteristics of the coastal zone and of mechanisms responsible for its morphological evolution,

Decides to convene the OSNLR Group of Experts including representatives from relevant IOC regional and global programmes to:

- (i) identify the specific contributions of OSNLR to coastal zone management over the coming 2-3 biennia;
- (ii) determine appropriate mechanisms of co-ordination of OSNLR activities with other IOC programmes relative to the coastal zone, including GOOS and TEMA, as well as other international programmes;
- (iii) devise an advisory mechanism to support the development of this contribution of OSNLR;

The financial implication for the meeting of the Group of Experts is approximately US\$30,000.

Resolution XIX-3

OCEAN MAPPING

The Intergovernmental Oceanographic Commission,

A.

Recalling that, the IOC Assembly at its seventeenth session (March 1993), 'stressed that the Ocean Mapping Programme was a priority action of the IOC and should be provided with necessary support.' (Document SC/MD/101, paragraph 120),

Recalling further the IOC Resolution XVIII-10 "Support to the Joint IOC-IHO Ocean Mapping Programme" which *inter alia*: (i) instructed the IOC Executive Secretary to initiate discussions on how to establish scientific priorities for bathymetric surveys of the world ocean, etc., and (ii) invited the Director-General of UNESCO to establish one professional post for the Ocean Mapping Programme as of 1996,

Thanks the Scientific Committee on Oceanic Research (SCOR) for establishing Working Group 107 "Improved Global Bathymetry", as a first step towards the preparation of "a well co-ordinated and comprehensive plan for the coming decade";

Invites the International Hydrographic Organization (IHO) to collaborate closely in the preparation of this plan so as to ensure adequate links with all governmental, as well as non-governmental institutions concerned, and to improve intergovernmental leadership and dialogue;

Accepts the comprehensive Report of the Consultative Group on Ocean Mapping (CGOM) to the Nineteenth Session of the IOC Assembly (Document IOC/INF-1063);

Thanks the Russian Federation for providing a professional staff member to support the Ocean Mapping programme over a long period;

instructs the Executive Secretary IOC to continue consultation with the Director-General of UNESCO regarding the establishment of a permanent professional post for Ocean Mapping in the interest of continuity in the present position of the Technical Secretary for Ocean Mapping in the IOC Secretariat

B.

Taking into account the satisfactory development of five regional International Bathymetric Charts (IBC), and in particular, the recommendations of EB-IBCEA-II (Document IOC/INF-1063, Annex IV), and Resolution IOCINCWIO-IV.1,

Urges Member States to continue giving strong support to the IBC series;

Accepts in principle the statement of the International Arctic Science Committee and the Arctic Ocean Sciences Board that a new internationally-based, bathymetric chart of the Arctic Ocean be produced as a high priority, and

Instructs the Executive Secretary IOC to investigate further the possibility of producing such a chart either as a new regional IBC series, or under General Bathymetric Chart of the Oceans (GEBCO);

C.

Recommends that Member States equip their research vessels with geophysical sensors in addition to hydrographic instruments, permitting simultaneous recording of bathymetry, as well as geophysical parameters;

Urges Member States to make available the results of analyses of bathymetric data for contouring and digitizing, also providing other related geophysical data;

Financial implications for the 1998-1999 period:

- Participation of Ocean Mapping officers, staff and experts in the relevant activities of Ocean Mapping and other programmes, and organizations in 1998-1999 US\$20,000
- The biennial cycle of the meeting of the Consultative Group on Ocean Mapping in 1999 US\$15,000
- The meetings of the Editorial Board for the biennial cycle: IBCM, IBCWIO, IBCCA, IBCEA and IBCWB in 1998-1999 US\$105,000

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- Contracts for the organization of related Ocean Mapping activities
..... US\$70,000
- Total required
..... US\$210,000

Resolution XIX-4

RESTRUCTURING OF GIPME PROGRAMME ACTIVITIES

The Intergovernmental Oceanographic Commission,

Having considered the report of the Chairman of GIPME on activities within the GIPME Programme,

Noting with satisfaction the progress within the GIPME Programme in a variety of areas including the provision of advice and programme support for several regions,

Appreciating the degree of co-operation engendered among the three co-sponsoring agencies of the GIPME Programme (IOC, UNEP and IMO) and the satisfaction expressed by UNEP and IMO regarding the valuable support provided by GIPME to their own programmes and objectives,

Noting also the difficulties experienced in communications with regional experts on matters relating to the promotion of GIPME activities,

Recognizing the importance and relevance of the GIPME Programme to national objectives for improving marine environmental management and the prevention of marine pollution from both marine-and land-based sources,

Recognizing also the relevance of GIPME to addressing a variety of current international concerns and initiatives for which the co-sponsoring agencies have responsibilities,

Emphasizing the need for greater efficiency in the prosecution of IOC activities,

Decides to:

- (i) designate GIPME as the appropriate IOC Programme within which to implement pilot projects of the Health of the Oceans Module of the Global Ocean Observing System (GOOS) in full consultation with the GOOS Project Office, the GOOS Steering Committee and the relevant GOOS panel;
- (ii) establish a GIPME Expert Scientific Advisory Group (GESAG) having the Chairman and Vice-Chairman of the Committee for GIPME and the present Chairmen of the three Expert Groups GEMSI, GEEP and GESREM as core members, supplemented as appropriate with additional experts, to undertake further development and implementation of the GIPME Programme;
- (iii) disband the three Expert Groups GEMSI, GEEP and GESREM and thank their members for the work accomplished;
- (iv) abolish, in agreement with UNEP, the IOC-UNEP Intergovernmental Panel for GIPME and assign the regional responsibilities of the Panel to GESAG;

Encourages direct contacts between GIPME Officers, the IOC Secretariat and national experts on matters relating to the GIPME Programme and the implementation of pilot projects of the Health of the Oceans Module of GOOS subject to the provision that National Action Addresses be routinely informed of such direct contacts and topics of discussion;

Invites the Director-General of UNESCO to take early action on the selection of an individual to fill the P-5 position for the Marine Pollution Research and Monitoring Unit within the IOC Secretariat.

Financial implication: US\$30,000 for a meeting of GESAG.

Resolution XIX-5

MARINE SCIENCE AND OBSERVATION INPUTS TO ICAM

The Intergovernmental Oceanographic Commission,

Recalling Chapter 17, Section A of Agenda 21 which recognized Integrated Coastal Area Management (ICAM) as a useful tool and a process to achieve sustainability in coastal zones, and recommended that coastal countries establish appropriate mechanisms for ICAM, at both national and regional levels, prepare coastal management plans, adopt guidelines and build national capacity for the management of their coastal areas.

Recalling also the decisions of the Eighteenth Session of IOC Assembly in response to the recommendations of the IOC Group of Experts on Coastal Zone Activities, particularly to:

- (i) take an interdisciplinary approach to ICAM,
- (ii) encourage more interaction between IOC scientific programmes and socio-economic aspects,
- (iii) streamline the existing IOC coastal zone related activities and possibly develop a harmonized and focused coastal zone programme which will be distinct from existing IOC activities and with separate funding,
- (iv) develop common methodologies to be used by marine scientists in coastal zone management,
- (v) implement IOC training programmes on ICAM, and
- (vi) designate a co-ordinator in the IOC Secretariat to ensure the effective linkage between scientific programmes and coastal zone management needs,

Noting the recommendations of the IOC-SOA International Training Workshop on the Integration of Marine Science into the Process of the Integrated Coastal Management, Dalian, China, 19-23 May 1997, particularly on ensuring co-ordination among organizations concerned with the implementation of Chapter 17 of Agenda 21; the Convention on Biological Diversity; the FCCC; the International Coral Reef Initiative and the Global Programme of Action for the Protection of Marine Environment from Land-based Activities,

Recognizing the leading role of the IOC in the application of marine science and technology in support of ICAM, and particularly the need in this context to ensure proper linkage between science and management,

Expresses its satisfaction with the various activities devoted to ICAM carried out by the IOC during 1996-1997 in response to the decisions of the 18th session of IOC Assembly, as summarized in IOC/INF-1051,

Decides to:

- (i) continue to expand the IOC activities in relation to ICAM based on the recommendations of the IOC Group of Experts on Coastal Zone Activities, as well as those which are derived from various workshops, seminars, symposia, etc., in particular the Dalian workshop on science

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integration into ICAM;

- (ii) establish a harmonized and focused interdisciplinary coastal zone programme drawing upon, e.g., GOOS, OSNLR and other existing IOC as well as UNESCO programmes but distinct from, the existing IOC programmes, with separate funding;
- (iii) include "Marine Science Inputs to ICAM" as an Agenda Item of future meetings of the IOC Governing Bodies, as a forum for policy discussion on coastal zone issues, so as to ensure interdisciplinary and inter-sectoral interaction and well-co-ordinated administration at various levels;

Urges Member States to increase their involvement with the ICAM through active participation in the IOC sponsored activities by initiating new co-operative projects with the IOC in the field of ICAM and by providing extra-budgetary funding for these purposes;

Instructs the Executive Secretary IOC to:

- (i) designate a co-ordinator in the IOC Secretariat as soon as possible to look after the implementation of IOC activities devoted to ICAM, to ensure co-ordination and interaction between various IOC programmes and those of other organizations, as well as between marine scientists and experts in socio-economic and cultural aspects;
- (ii) invite other international organizations involved in coastal zone activities to:
 - (a) strengthen cooperation among them to ensure consistency at both global and regional levels, in the implementation of ICAM mandates included in the agreements as a result of, and follow-up to UNCED and in the recommendations of the Dalian Workshop, through, e.g., ICSPRO and ACC Sub-committee on Oceans and Coastal Areas;
 - (b) adopt a common approach toward ICAM and coordinate their programmes at regional, national and local levels;
 - (c) use the IOC/WESTPAC as the first test area for ensuring co-ordinated actions related to ICAM among the different international organizations in the region;
- (iii) assist in seeking extra-budgetary funding to support further implementation of ICAM activities.

Financial implication: US\$40,000 for Expert Consultations.

Resolution XIX-6

THIRD SESSION OF THE INTERGOVERNMENTAL COMMITTEE FOR THE GLOBAL OCEAN OBSERVING SYSTEM (I-GOOS)

The Intergovernmental Oceanographic Commission,

Having considered the Executive Summary Report of the Third Session of the Intergovernmental Committee for GOOS, together with the four Resolutions and the eight Recommendations adopted at the session.

Takes note of the report and endorses the Resolutions;

Approves all the eight Recommendations at I-GOOS-III, and takes action, subject to availability of resources, on the Recommendations as follows:

Recommendation I-GOOS-III.1 - Support of New Regional GOOS Initiatives

- (i) Urges Member States to take action to develop regional initiatives and projects that are consistent with the Principles and Strategic Plan of GOOS, with the assistance of the Secretariats of the sponsoring organizations and their regional bodies;

Recommendation I-GOOS-III.2 - Module Planning

- (i) Urges Member States to provide the Coastal and Marine Living Resources panels with the means (e. g., resources) to enable them to draft within the next two-three years plans necessary for the implementation of activities;
- (ii) Requests the panels to work in close collaboration with the regional bodies of both the GOOS sponsoring organizations, and related regional Conventions;
- (iii) Requests also the coastal module panel to consider forming a joint GOOS-GTOS planning group for the coastal zone;

Recommendation I-GOOS-III.3 - Global Ocean Data Assimilation Experiment

- (i) Urges Member States to participate in the planning for the experiment and its required support;
- (ii) Requests the planners to build the experiment as much as possible from existing observational systems and methodologies;

Recommendation I-GOOS-III.4 - First GOOS Agreements Meeting 1998

- (i) Approves the convening of a First GOOS Agreements Meeting in conjunction with the IYO by mid-1998, to:
 - (a) obtain agreement from governments to the concepts and principles of GOOS as defined in the planning documents;
 - (b) obtain commitments from governments and national agencies to contribute to the implementation of GOOS;
- (ii) Requests the Director of the GOOS Project Office (GPO) to:
 - (a) take all measures deemed necessary to ensure the success of the meeting;
 - (b) submit to the Member States a first draft agreement before the end of 1997;

Recommendation I-GOOS-III.5- GOOS Capacity Building

- (i) Urges Member States to assist in implementing the GOOS capacity building workshops planned to be held in Malta (November 1997) including preparation for MED-GOOS, the southern Pacific (early 1998), the IOCARIBE region (1998) and South America (1998);
- (ii) Also urges the GPO to arrange expert missions to assess the needs of the concerned countries and to devise ways and means of strengthening the capacity building role of the sponsoring organizations' regional bodies;

Recommendation I-GOOS-III.6- Costs and Benefits of GOOS

- (i) Requests the GOOS Steering Committee to establish, with the assistance of the

GPO, a small Task Force to promote and plan a series of studies, surveys and workshops to carry out cost-benefit analysis of GOOS in various regions of the world with the aim of assessing the value of GOOS for Governments;

- (ii) Requests all those concerned with GOOS development to contribute to funding this undertaking;

Recommendation I-GOOS-III.7 - International Year of the Ocean

Approves the Recommendation;

Recommendation I-GOOS-III.8 -GOOS Plan of Action for 1998-1999

- (i) Urges Member States to provide earmarked contributions to the GOOS Trust Fund and second appropriate staff members to the GOOS Project Office to assist in the implementation of the proposed GOOS actions.

Financial implications for the biennium 1998-1999 (figures in US \$):

IOC	883,800	
Trust Fund	507,000	[Note: Those figures do not encompass the financial implications of the GOOS "related operational activities" such as IGOSS. GLOSS. DBCP, GCRMN and remote sensing, which altogether amount to: IOC: 311,500 and Trust Fund: 447,500
WMO	60,000	
UNEP	40,000	
Icsu	60,000	
Total	1,550,800	

Resolution XIX-7

GOOS CAPACITY BUILDING

The Intergovernmental Oceanographic Commission,

Recognizing that the establishment of GOOS requires different approaches in developed and developing countries,

Recalling the emphasis given in Agenda 21, Chapter 17 on providing assistance to developing countries for the establishment of GOOS,

Noting that setting up of ocean observing systems that comply with underlying principles of GOOS is the fundamental requirement for GOOS implementation,

Noting further that, to a large extent, the implementation of different modules of GOOS will be built upon the data generated from the standard observing systems,

Expressing concern that the observing systems necessary for GOOS implementation may not be in place in the seas around developing countries,

Recognizing that developing countries need technical and financial assistance from developed countries and international organizations and bodies,

Decides that high priority be given to ensuring that observing systems be put in place in developing countries;

Urges developed countries which are members of IOC to increase their assistance for capacity building in developing countries;

Invites other international organizations and bodies to support this activity as a fundamental step to ensure the implementation of GOOS.

Financial implications for the IOC: None

Resolution XIX-8

GLOBAL SEA LEVEL OBSERVING SYSTEM (GLOSS)

The Intergovernmental Oceanographic Commission,

Having reviewed the report of the Fifth Session of the IOC Group of Experts on GLOSS (Pasadena, USA, 19-21 March 1997),

Having also reviewed the revised draft GLOSS Implementation Plan 1997, submitted by the IOC Group of Experts on GLOSS,

Noting with satisfaction:

- (i) the progress in the development of the GLOSS and active participation in GLOSS of many Member States,
- (ii) three successful GLOSS training workshops organized with the support of IOC by India, Argentina and the United Kingdom during the 1995-1997 period,
- (iii) the close co-operation between GLOSS and GOOS, particularly in developing the GOOS Climate Module,
- (iv) the preparation and wide dissemination of GLOSS CD-ROM and GLOSS Bulletins via w w w ,
- (v) the development of GLOSS regional projects in many areas, including a joint IOC/CIESM effort in the Mediterranean and Black Seas (MedGLOSS),
- (vi) the wide use of GLOSS-related sea level data and products in scientific analyses and applications to coastal areas,

Endorses the report of the Fifth Session of the IOC Group of Experts on GLOSS, including the Plan of Action for 1997-1999:

Adopts the revised GLOSS Implementation Plan 1997;

Adopts also the revised Terms of Reference of the IOC Group of Experts on GLOSS as shown in the Annex to this Resolution;

Invites Member States to provide the IOC Secretariat within one month the updated information on National GLOSS contacts to be included in Annex 10 of the GLOSS Implementation Plan 1997;

Urges Member States to strengthen their participation in and support for GLOSS and its regional projects as defined by Chapter 12 of the GLOSS Implementation Plan 1997;

Instructs the Executive Secretary IOC:

- (1) to publish the revised GLOSS Implementation Plan in the IOC Technical series;

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- (ii) to continue the position of the GLOSS Technical Secretary in the IOC Secretariat;

Calls upon the IOC Regional bodies, and other regional mechanisms involved in GLOSS projects, to strengthen the role of the GLOSS Regional co-ordinators in accordance with the provisions outlined in the revised GLOSS Implementation Plan, particularly with regard to systematic assessment of the regional GLOSS networks, needs for training and requirements for sea-level data products;

Invites the IOC Group of Experts on GLOSS to continue close co-operation with the GOOS programme in designing and planning the GOOS Climate and Coastal Modules.

Annex to Resolution XIX-8

Terms of Reference of the IOC Group of Experts on GLOSS

The IOC Group of Experts on GLOSS shall:

- (i) advise the IOC on the implementation of the GLOSS System at global and regional levels;
- (ii) work closely with GOOS and encourage the integration of GLOSS into a global ocean observing system;
- (iii) update the GLOSS Implementation Plan regularly;
- (iv) ensure proper liaison with international research programmes and relevant international organizations;
- (v) provide advice on the development of TEMA components of GLOSS, regarding training of specialists, provision, installation and maintenance of instruments as well as data evaluation and interpretation;
- (vi) report periodically to I-GOOS and the IOC governing bodies.

Financial implication for 1998-1999:

Meetings of GLOSS experts: US\$43,000

2 Training Workshops: US\$50,000

Contracts (CD ROM; Manuals, PSMSL Bulletin): US\$60,000

Total: US\$153,000

Resolution XIX-9

IOC SUB-COMMISSION FOR THE CARIBBEAN AND ADJACENT REGIONS (IOCARIBE)

The Intergovernmental Oceanographic Commission,

Considering Resolution XVII-11 of the IOC Assembly, which called for appointing necessary staff and strengthening of the IOCARIBE Secretariat in Cartagena de Indias,

Recalling Resolution XVIII-16 of the IOC Assembly, which notes with concern the interim situation of staffing in the Regional Secretariat since the Assistant Secretary for IOCARIBE post was transferred to Paris without replacement,

Recalling also Resolution EC-XXIX.4 which notes with concern the difficulties reported by the Executive Secretary IOC for implementing previous resolutions regarding provision of UNESCO/IOC

staff in the Regional Secretariat,

Taking into account Recommendation SC-IOCARIBE-V.1, which expresses unanimous endorsement of IOCARIBE Member States to the continuation and reinforcement of the Sub-Commission, and requests the Executive Secretary IOC to report this unequivocal support for IOCARIBE to the IOC Assembly and Executive Council,

Being aware of the efforts made by the Executive Secretary IOC and the Acting Assistant Secretary for IOCARIBE to keep the Regional Secretariat operating under the present resource,

Noting with satisfaction that IOCARIBE has gone through a re-structuring phase following the Evaluation in 1995, that a comprehensive Medium Term Strategy is already under execution, and that therefore IOCARIBE is prepared to move into an important implementation phase using new schemes, including joint planning with other regional organizations for managing regional projects,

Noting further the serious concern expressed by Member States that successful implementation of ongoing and proposed IOCARIBE projects cannot take place without an Assistant Secretary in the region to officially represent IOCARIBE at an appropriate level and build the required partnerships with other organizations,

Invites the Director-General of UNESCO to urgently create the permanent post of Assistant Secretary for IOCARIBE, or return the previous existing professional position to the Regional Secretariat in Cartagena de Indias;

Instructs the Executive Secretary IOC to continue searching for ways and means to provide longer term core staff to the Regional Secretariat of IOCARIBE, for example, as and when positions become vacant in the IOC Secretariat due to the retirement of current staff

Acknowledges with appreciation the generous support which is planned to be provided by Sweden to IOCARIBE through the IOC Trust Fund, and the decision to re-appoint an associate expert to the Regional Secretariat in Cartagena de Indias;

Recognizes the support provided by the Government of Colombia to the Regional Secretariat, including the proposed expansion of the office area and local administrative staff;

Urges other Member States to support the Sub-Commission for IOCARIBE by contributing to the IOC Trust Fund for implementing IOCARIBE projects and activities, including the operation of the Regional Secretariat office in Cartagena de Indias;

Further urges Member States in the region to appoint seconded staff to the Regional Secretariat, either at the office in Cartagena de Indias, or based in their own home countries under terms of reference developed jointly with the Assistant Secretary in the region.

Financial implications:

Operational costs	US\$ 40,000
Assistant Secretary for IOCARIBE 1998	US\$ 60,000
	<hr/>
	US\$100,000

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Resolution XIX-10

FOURTH SESSION OF THE IOC REGIONAL COMMITTEE FOR THE CO-OPERATIVE INVESTIGATION IN THE NORTH AND CENTRAL WESTERN INDIAN OCEAN (IOCINCWIO-IV)

The Intergovernmental Oceanographic Commission,

Recalling the successful implementation of the IOCINCWIO-III Programme of Work during the past intersessional period 1992-1997,

Noting with satisfaction that a considerable amount of training activities have been carried out, and thanking the various donors and agencies for their financial and in-kind assistance,

Noting the results of UNCED and the importance of its follow-up at the national and regional level,

Noting further the 1998 International Year of the Ocean and its objectives to create awareness and to obtain commitments from governments to give priority to the oceans,

Having considered the Executive Summary of the Fourth Session of the IOC Regional Committee for the Co-operative Investigation in the North and Central Western Indian Ocean, together with the two Resolutions and two Recommendations adopted during the Session,

Takes note of the Executive Summary and the Resolutions;

Decides to take the following action on the Recommendations:

Recommendation IOCINCWIO-IV. 1- Large Marine Ecosystems (LME)

- (i) Approves the Recommendation subject to the availability of resources;
- (ii) Instructs the Executive Secretary IOC to issue a Circular Letter to invite Member States to identify experts for the Group of Experts on LMEs in the IOCINCWIO region;
- (iii) Urges Member States to assist in LME-related capacity building in the region;

Recommendation IOCINCWIO-IV.2 - Work Plan 1997-2001 (*)

- (i) Approves the Recommendation subject to the availability of resources;
- (ii) Urges Member States to contribute financially and in-kind to the implementation of the Programme of Work;
- (iii) Urges donor agencies, organizations and national institutions to actively communicate, co-ordinate and collaborate with the IOC, IOCINCWIO and Member States to achieve the highest level of complementarity and co-ordination.

(*) ANNEX TO THE RESOLUTION: SEE ANNEX TO RECOMMENDATION IOCINCWIO-IV.2

Annex to Recommendation IOCINCWIO-IV.2 - Workplan 1997-2001

(Budget in thousands of US Dollars); 'X' indicates implementable with no cost

	Para. No.	1997	1998	1999	2000	2001
4.1.1 OCEAN DYNAMICS AND CLIMATE						
- Co-operation in CORP-WIO (CSC): Chairman to correspond with CSC	21	x	-	-	-	-
- Establishment GE-ODC						
= Send out invitation to Member States to identify experts	35	x	-	-	-	-
= Meeting of the GE-ODC	35	-	15	-	-	15
4.1.2 OSLR						
4.1.2.1 HAB						
- Nomination of Regional Co-ordinator	40	x	-	-	-	-
- Manual	40	15(E,F)	-	-	-	-
- Training Course	40	-	25	-	-	-
- Baseline monitoring	40	-	-	40	15	15
4.1.2.2 Biodiversity						
- Set up and maintain biodiversity database	43	5	5	5	5	5
- Desk study available biodiversity capacity (to be implemented by RECOSCIX-WIO)	44	x	-	-	-	-
4.1.2.3 Recruitment and Stock Assessment						
- Training on sampling strategies for assessment of artisanal fisheries, including manual and planning of operational workplan (sampling of fish eggs and larvae in coral reefs, mangroves and inshore waters)	48, 49	-	15	-	-	-
4.1.2.4 Inventory Critical Habitats IOC/UNEP - Seagrasses + other habitats						
- Phase 1: Kenya and Northern Tanzania (North)	53-57					
- Phase 2: Comores, Madagascar, Mauritius, Seychelles, La Reunion, Mozambique, and Southern Tanzania		12	-	-	-	-
		-	40	-	-	-

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	Para. No.	1997	1998	1999	2000	2001
4.1.2.5 LME						
- Establishment GE-LME	68 (Rec. 1)	x	-	-	-	-
- Meeting GE-LME		-	25	-	-	-
- Consultative meeting for drafting proposals for submission to GEF		-	10	-	-	-
- Including support of scientists in 'Shoal of Capricorn' Cruise		-	10	10	10	-
4.1.3 Ocean Mapping						
- Next Session of IBCWIO	72	10	-	10	-	-
4.1.4 OSNLR						
- Finalization of draft manual	77	10	-	-	-	-
- Workshop on Methodology and Selection of Sites	83	20	-	-	-	-
- Monitoring - Pilot Studies (Kenya, Tanzania, Madagascar, Comores, La Reunion, Seychelles, Mozambique)	82	-	50	50	50	-
- Provision of equipment		-	130	-	-	-
4.1.5 Marine Pollution - Operational Activities (*)						
4.1.5.1 Regional Nutrient and Water Quality Monitoring Network						
- Nutrients, Sediment transport and Turbidity monitoring	86	18	18	27	27	36
- Intercalibration exercises	86	-	20	-	20	-
- Organic Pollutants, heavy metals	88	-	6	6	6	6
- Marine Debris Study	90	25	-	-	-	-
4.1.5.2 Musselwatch	92	-	6	6	6	6
(*) no allocation made for data management guidelines						
4.1.6 Integrated Coastal Zone Management	94-100					
- Workshop on data and information requirements and standardization for ICZM (Output: manual/report)		-	30 (E,F)	-	-	-

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	Para No.	1997	1998	1999	2000	2001
4.2.1 Regional Component of GOOS						
- Regional GOOS awareness workshop	106	-	30	-	-	-
- Publication of the manual on use of remote sensing data	-	-	15 (E,F)	-	-	-
- SST maintenance and expansion to mainland States	104	-	25	-	10	-
4.2.2 GLOSS						
- Training course for sea-level station technicians	109-114	-	10	-	-	-
- Maintenance of sea-level stations (travel technicians)	"	-	7	7	7	7
- Data Analysis	"	7.5	7.5	-	-	-
- Establishment of new sea-level stations (15K/unit)	"	-	30	30	30	30
4.2.3.1 Data Exchange - ODINEA						
- Development and Operational Support (as per project proposal)	119	80	80	90	40	40
4.2.3.2 Information Exchange - RECOSCIX-WIO						
- Operational support	126	25	25	100	100	100
- support for WINDOW	"	x	6	6	6	6
- e-mail support to national institutions	128	20	20	20	20	20
- provision of ASFA to national institutions	124	x	15	30	30	30
5.1 WIOMSA						
- Secretariat Support	167 (res.2)	x	30	30	30	30
- MARG support (1998 and onwards: 10 x MARG I, II; 10 x MARG III)	"	30	90	90	90	90
- Publication of MSCPs	169	x	-	-	20	-
- Consultations on regional Marine Science Journal	150	x	x	-	-	-
- Fellowships (6-7) for participation of students from the region in Marine Science Field course (Kenya)	145	10	20	-	-	-
5.2 METHODS AND TECHNOLOGIES						
- Survey on available and appropriate modern technology tools for human capacity building	171	-	5	-	-	-

	Para No.	1997	1998	1999	2000	2001
6. CO-OPERATION WITH OTHER BODIES						
- Meeting of IOCINCWIO Officers with Regional Co-ordinating Unit for the Nairobi Convention (Seychelles)	182	4	4	4	4	4
- Provision of seed money for course on marine meteorology and physical oceanography (Nairobi, Kenya)		-	100	-	-	-
- Regional Project Information database (RCU, in collaboration with RECOSCIX-WIO)		-	20	20	10	10
- Procurement of SOOP XBT and meteo units (10 units/year)		20	20	20	20	20
7. INTERNATIONAL YEAR OF THE OCEAN						
- Seed money for national and regional activities						
- Support to participants from the region in PACSICOM		-	40	-	-	-
- Support for national ICRI event (Nosy Bé, Madagascar)		-	60	-	-	-
- Support WIOMSA 1998 Year of the Ocean activities		30	-	-	-	-
			10			
TOTALS PER YEAR (in thousands of US Dollars)		341.5	1074.5	601	556	470
TOTAL REQUIRED BUDGET 1997-2001: US\$ 3,043,000						

Resolution XIX-11

IOC REGIONAL COMMITTEE FOR THE CENTRAL INDIAN OCEAN

The Intergovernmental Oceanographic Commission,

Recalling the very considerable development of marine research and ocean observations in the Member States of the Region since IOCINDIO-1,

Noting that much of the programme adopted by IOCINDIO-I has been implemented and many training activities held,

Recalling the results of UNCED and the importance of follow-up at the national and regional level,

Emphasizing the importance of and opportunity provided by the 1998 International Year of **the** Ocean and its objectives to create awareness of the ocean and to obtain commitments from governments to give appropriate priority to ocean issues,

Having considered the Executive Summary of the Second Session of the IOC Regional Committee for the Central Indian Ocean together with the two Resolutions adopted by the Session,

Takes note of the Executive Summary, and,

Endorses the Recommendations attached as an annex to this Resolution, subject to availability of required resources;

Instructs the Executive Secretary IOC to organize a training programme on the following subjects identified in the attached annex:

- (i) a regional workshop on sea-level data analysis;
- (ii) a regional workshop for integrated coastal studies, including coastal marine pollution;
- (iii) a sub-regional workshop on coral reef monitoring;
- (iv) a sub-regional workshop on oil spill monitoring in the Persian Gulf;
- (v) a sub-regional workshop on storm-surge forecasting.
- (vi) convene the Third Session of IOCINDIO in the Islamic Republic of Iran, end of 1998 or early 1999.

Financial Implications: IOC US\$150,000

TABLE I: PROGRAMME AND BUDGET ESTIMATION (1997-1999)
(Annexed to Recommendation IOCINDIO II.1)

Project	Action	Objective	Date and Place	Funding Required	Participation	Remarks
I. SEA LEVEL PROGRAMME (GLOSS)						
A. Instrumentation (tide gauges, meteorological sensors, modems)	1. Modernization of existing tide-gauge stations and establishment of new stations.	1. To acquire high quality sea-level data from the IOCINDIO region.	1996-2000	1. Maximum \$2,000,000 for 40 gauges; PCS should endeavour to find national funds. IOCINDIO to explore other sources.	All countries	Network planning and priorities may be considered in detail by a coordinating committee to be set up by IOCINDIO based on suggestions from PCS.
	2. Training in use of modern instruments.	2. To achieve uniformity in data acquisition in the IOCINDIO network.	1998-2000	2. Training: \$30,000.		Linkages with GLOSS: IOC-UNEP-WMO-ROPME.
	3. Exchange of visits.			3. Exchange of visits: \$10,000.		
	1. Short term regional workshops	1. To develop analysis skills in PCS	1. Workshop in late 1997 or 1998. Adelaide, Australia	1. \$50,000.	Coordinator: Dr Shetye	Linkages with GLOSS, IOC-UNEP-WMO pilot activity in the Indian Ocean. ROPME.
	2. Exchange of visits	2. To enable standardization of data format archival and dissemination.	2. Exchange visits during 1996-1998.	2. \$20,000.		Coordinating committee to be set up under 1.1 to plan and review progress under the item, in conjunction with GLOSS.
	3. CD-ROM based training material			3. \$20,000.		
B. Sea Level Data Analysis						

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Project	Action	Objective	Date and Place	Funding Required	Participation	Remarks
II. STORM SURGE FORECASTING PROGRAMME	1. Preparation of high resolution coastal and near shore maps.	Development of real-time storm surge prediction system for IOCINDIO countries.	1996-2000	Travel: \$30,000.	Initially India, Myanmar, Sri Lanka, Bangladesh, Australia.	Linkage with Project 1.
	2. Scientific exchange for visits/training for numerical model development and validation.		Concerned PCS	Training: \$30,000.	More countries may join later.	IOCINDIO may set up an expert group from PCS to define the mechanism for implementation.
	3. Mechanism for implementation			Infrastructure: \$40,000.		
III. CLIMATE MODULE	Regional workshop on oceans and climate.	Exchange of scientific expertise.	May precede or follow SCOR workshop to be held in Goa in November 1997.	Approximately \$30,000. For travel and organization.	All countries.	Linkage to SCOR, CLIVAR, WCRP.

IV. COASTAL AREA MANAGEMENT	<p>To develop expertise through workshops, training and exchange visits</p>	<p>1. To monitor oil pollution and threats related to shipping and other events including microbial/ecological events.</p> <p>2. Monitoring and modeling of coastal marine pollution inventory.</p> <p>3. Workshop on oil spill drift modeling.</p> <p>4. Inventory of use of toxic materials.</p> <p>5. Expert Workshop to prepare harmonized coastal zone studies programme of the region.</p>	<p>1996-1998</p>	<p>1. \$300,000 for hardware (setting up laboratory) plus travel and organization expenses.</p> <p>2. MAMCOMP-IOCINDIO to explore sources - \$20,000.</p> <p>3. \$20,000.</p> <p>4. \$....</p> <p>5. \$20,000.</p>	<p>Initially India, Islamic Republic of Iran, Australia, Qatar, Indonesia, Sri Lanka, Saudi Arabia.</p>	<p>Linkage with ROPME activities and possibly PERSGA.</p>
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Project	Action	Objective	Date and Place	Funding Required	Participation	Remarks
V. MARINE LIVING RESOURCES PROGRAMME	Training course in marine taxonomy and DNA fingerprinting, possibly at NIO, Goa 1997 (\$20,000)	To establish a Marine Biological Reference Museum, with a possible linkage to HAB Centre, Denmark.	NIO, Goa, India 1997-1999.	1. Building: \$200,000. 2. Infrastructure: \$100,000. 3. Exchange of specimens: \$75,000. US\$375,000 (National Resources)	India, in collaboration with all interested countries.	May be a resource generating activity through admission fee. National resources linkage to ROPME.
VI. CORAL REEFS PROGRAMME	1. Establish monitoring stations in the IOCINDIO region. 2. Regional workshop, training, exchange visits.	To protect and manage coral reefs.	1997 onwards.	Initial expenses for establishment: \$300,000. Recurring expenses basically for observations: \$150,000. PCS may find their own resources with additional funding from IOCINDIO for Item (6ii).	Initially India, Maldives, Sri Lanka, Australia, Indonesia, Saudi Arabia.	Linkage with Global Coral Reef Monitoring Network and ICRI and ROPME. IOCINDIO requested setup of an expert group for planning and implementation.

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Project	Action	Objective	Date and Place	Funding Required	Participation	Remarks
VII. ONE TIME EXPEDITION OF THE INDIAN OCEAN	To complete survey through triangular cruise across the flanks of the Indian Ocean.	<p>1. To revisit and supplement earlier hydrographic sections.</p> <p>2. To study inter-annual variability of the Indian Ocean.</p> <p>3. To raise public awareness through the Year of the Ocean.</p>	1997-1998 (southern summer)	<p>US\$850,000 for ship time.</p> <p>US\$75,000 contribution of Common Wealth funds.</p> <p>US\$175,000 for equipment.</p> <p>IOCINDIO may explore.</p>	India, Australia, South Africa, Indonesia, Maldives, Islamic Republic of Iran, Qatar, Sri Lanka, initially.	<p>Linkage with WOCL, ROPME</p> <p>IOCINDIO requested set up of expert group for planning and implementation. NIO is the contact.</p>
VIII. IOCINDIO YEAR OF THE OCEAN	<p>1. Research cruise from Goa to Mombasa (Indian vessel to Lisbon).</p> <p>2. Launch ocean satellite-India.</p> <p>3. Research cruise in Persian Gulf, Gulf of Oman, Caspian Sea - I.R. of Iran.</p> <p>4. Establish IYO Planning Committee.</p>	<p>Marine Pollution</p> <p>Measure ocean color, aerosol, winds, atmosphere, vapor and water.</p> <p>Education.</p> <p>Public awareness.</p>	<p>1998</p> <p>1998</p> <p>1998</p> <p>1998</p>	<p>None</p> <p>None</p> <p>None</p> <p>None</p>	<p>All countries</p> <p>All countries</p> <p>All countries</p>	<p>Training activities</p> <p>Australia-Chair</p>

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Project	Action	Objective	Date and Place	Funding Required	Participation	Remarks
IX. REGIONAL COOPERATION	Model study of mangrove ecosystems with ISME.	Protection and management of ecosystem.	1997-1998	\$3,000.	IOCINCWIO	Study is in the Gulf of Kutch.
	IOMAC proposal on biodiversity and marine pollution.	Improved management and coordination.	1997-1998	None	All countries of the region.	Proposal being submitted to GEF by IOMAC-IOCINDIO conditional endorsement.
X. GLOBAL OCEAN OBSERVING SYSTEM	1. Modernize tide gauge network.	See Programme I.	1997-1998		India and Australia will take the lead	
	2. Initiate storm surge modeling.	Prediction.	1997	\$15,000.	India lead. See Programme II.	
	3. Regional workshop on natural hazards.	Prediction awareness.	1997-1998	\$25,000.		
	4. Expand capacity for making climate-related observations.	Intra-regional assistance.	1997-1999	\$5,000.	See Programme III.	
	5. Inventory marine pollution monitoring.	Enhance management.	1997-1998		See Programme IV.	
	6. Marine Living Resources.	Cooperate with ICRI, GCRMN.	1997-1998		See Programmes V and VI.	
	7. Identify sponsors for region.	Increase resources.	1997-1998			

Resolution XIX-I 2

ACTIVITIES OF THE IOC REGIONAL COMMITTEE FOR THE SOUTHERN OCEAN (IOCSOC)

The Intergovernmental Oceanographic Commission,

Recalling Resolution EC-XXIX.6 on Southern Ocean Forum and Regional Committee for the Southern Ocean,

Further recalling that the Executive Council at its XXIXth Session invited the Chairman of IOCSOC and his Advisory Group to prepare a more specific plan of activities for presentation to the next Assembly,

Having considered the proposals presented to the Assembly by the Chairman of IOCSOC,

Approves the proposed projects and activities for the 1998-1999 period as shown in the Annex to this Resolution to be implemented by the IOCSOC Committee in cooperation with other IOC bodies and international organizations;

Requests the Chairman of IOCSOC and the Advisory Group, with the assistance of experts, and in consultation with relevant IOC bodies and international organizations, to develop plans of action and a timeframe for each of the projects, taking into account the advice given by other relevant organizations;

Invites, in particular, WMO, CCAMLR, SCAR, SCOR, IGBP, IWC and WCRP, to closely cooperate with IOCSOC and other IOC subsidiary bodies in the implementation of the projects;

Draws the attention of the Antarctic Treaty Consultative Parties to this IOC initiative and invites the Parties to accept it as a contribution from the United Nations system to a common approach to Antarctic science, for the benefit of all involved in Antarctic marine research and monitoring;

Invites Member States to provide assistance and the required resources for these projects and related meetings.

Estimated financial implications for 1998-1999:

1. 100.000
2. 50.000
3. 20.000
4. No
5. No

Meeting of the Advisory Group - US\$ 10.000

Total: US\$ 180.000

Annex to Resolution XIX-12

Proposed IOC projects and activities in the Southern Ocean for the 1998-1999 period

1. To establish a Pilot Project on Marine Pollution Monitoring in co-operation with UNEP, COMNAP and CCAMLR and to set up baselines in some selected areas of the Southern Ocean (coastal and open waters) within the framework of the GOOS Health of The Ocean module (HOTO) and GIPME (MARPOLMON);
2. To convene a Symposium/Workshop on large-scale variability in the coupled sea-ice/ocean system, and underlying circum-Antarctic mechanisms (eventually to include atmosphere and pelagic ecosystems) and to invite WMO, SCAR, SCOR and CCAMLR, to co-sponsor this event in 1999;

3. To convene a Workshop on the Coastal Antarctic Current and Antarctic Shelf Slope Front (dynamics, structure, variability) in 1999 in co-operation with SCOR (through its International Antarctic Zone programme) and SCAR (through ASPECT, Antarctic Sea Ice Processes, Ecosystems and Climate);
4. To promote further the use of supply and tourist ships to make en route routine observations in the Southern Ocean, in support of the IGOSS Ship-of-Opportunity Programme, and GOOS. This may include surface temperature, salinity, ocean colour, fluorescence, CO₂, upper ocean temperature by XBTs or XCTDs, sea-ice coverage and thickness.
5. To develop an international project to study impacts of changes in ultraviolet radiation on the marine ecosystem.
6. To continue supporting the activities of the RNODC for SOC (through IODE) and the Southern Ocean Sea Level Centre (through GLOSS).

Resolution XIX-I 3

MATTERS RELATING TO THE ECONOMIC AND SOCIAL INPUTS OF THE OCEAN/ATMOSPHERE PHENOMENON EL NINO AND THE SOUTHERN OSCILLATION (ENSO)

The Intergovernmental Oceanographic Commission,

Recalling its Resolution XVIII-6,

Noting with satisfaction the report of the Joint IOC-WMO-CPPS Working Group on 'El Niño' (COL-OMM-CPPS/El Niño-VIII/3),

Recognizing that the international oceanographic community, at both the regional and the international levels, within which IOC plays an outstanding role, has made great progress over the past decade towards a scientific understanding of the ocean's role in world climate change,

Noting, however, that continuing effort is required to make it possible to give sufficient advance warning of major climate changes in order to avert large-scale human, material and economic damage, particularly such as that caused by the global impact of the recurrent phenomenon known as 'ENSO',

Considering that climate-related oceanographic knowledge and technology would benefit from a focusing of effort on applied study of the socio-economic implications of the 'ENSO' phenomenon,

Considering, also, that the oceanographic community should devote more effort in demonstrating the societal and economic applications and the usefulness of its work to increase its chances of greater recognition and economic support from governments, foundations, scientific organizations and national, regional and international science and technology policy-makers,

Considering moreover that a global socio-economic model project, devoted to the application of an 'ENSO' prediction model, would be of the utmost assistance in highlighting the close link between oceanographic research and predictions and activities promoting economic and social development,

Instructs the Executive Secretary IOC:

to encourage the acceleration of the activities of IOC and organizations co-operating with it, particularly the InterAmerican Institute (IAI), in regard to a socio-economic study of the 'ENSO' phenomenon;

Urges Member States:

1. to seek close co-operation with the countries affected by this phenomenon to ensure that the applied ENSO model is responsive to the countries' needs;
2. to establish improved mechanisms for the dissemination of information on ENSO forecasts with a view to reducing the extent of human and economic damage;
3. to identify the institutional, human, financial and information resources required by the countries interested in participating in the application of scientific knowledge of an ENSO prediction model, together with the technical assistance that might be provided by interested donor countries to the developing countries in order to enable them to participate effectively in that application;

Appeals to states, scientific organizations and foundations to support and assist those countries requesting additional human and natural resources, through bilateral and international co-operation.

Financial implications: No detailed budget is proposed for this activity at present because it is anticipated that its budget will consist of direct contributions either in cash to the IOC Trust Fund or in kind.

Resolution XIX-14

IOC ACTIVITIES IN THE CASPIAN SEA

The Intergovernmental Oceanographic Commission,

Recalling that following a resolution of the 29th General Conference of UNESCO, IOC organized in co-operation with the IAEA and IHP of UNESCO, the Workshop on Sea-level Rise and the Multidisciplinary Studies of Environmental Processes in the Caspian Sea Region (with the participation of all riparian countries of the region) and also provided assistance and support for the establishment of the NODC in the Islamic Republic of Iran,

Noting that the 28th Session of the UNESCO General Conference adopted resolutions calling for regional co-operation in the Caspian Sea and for UNESCO to establish an intersectorial working group led by the Division of Water Sciences on the interdisciplinary Caspian Sea programme to co-ordinate the activities within UNESCO, as well as with other international organizations involved in the Caspian Sea environment (UNEP, WMO, IAEA, UNDP, etc.),

Recognizing the urgent need for a co-operative multidisciplinary study to assess the reasons for and causes of the sea-level change and radical changes in marine living resources in the Caspian Sea, the acute economic and social consequences of these sea-level changes and the close linkage of water and environmental processes in the region with global climate factors,

Instructs the Executive Secretary IOC to consider ways and means to strengthen IOC's support of co-operative efforts of the riparian countries of the Caspian Sea region and more active involvement of IOC. in tackling Caspian Sea environmental problems in co-operation with other bodies and organizations, particularly, in the study of sea-level change and of marine pollution, the development of a regional monitoring system, development of data/information systems, marine ecology and living resources studies, activities related to the integrated coastal zone management, and to present these further proposals to the next session of the IOC Executive Council.

Financial implication: US\$15,000 for meeting

Resolution XIX-15

RESOLUTION FOR DOSS-2

The Intergovernmental Oceanographic Commission,

Recalling Resolution XVIII-1 by which the Assembly decided to continue the work of the *ad hoc* Study Group on IOC Development, Operations, Structure and Statutes with revised composition and terms of reference (DOSS-2),

Having considered the interim report and the recommendations therein presented by the *ad hoc* Study Group (Dec. IOC/DOSS-2),

Approves those actions given in Part 1 of the Annex to this Resolution;

Requests the *ad hoc* Study Group to continue its work on those aspects of its Terms of Reference specified in Part II of the Annex to this Resolution, taking due note of the guidance provided by this Assembly;

Further requests the *ad hoc* Study Group to provide a progress report to the Executive Council at its Thirty-first Session in 1998;

Reconfirms that the final report of the *ad hoc* Study Group and the recommendations arising from the Thirty-first Session of the Executive Council shall be provided to the Twentieth Session of the Assembly in 1999.

Annex to Resolution XIX-15

Resolution for DOSS-2

PART I - Approved

Adequacy of Contributions to the IOC

The Assembly:

1. Adopts the procedures suggested in the interim report (IOC/DOSS-2) concerning the treatment of the programme and budget, which will assist in the clarification and effectiveness of priority setting;
2. Encourages, as an urgent matter, the governmental representatives to the IOC to:
 - (i) ensure close liaison between their own co-ordinating mechanisms and those of their national commissions for UNESCO, to ensure compatibility of approach;
 - (ii) explore all possibilities for increased support for IOC programme and activities through direct contributions, co-financing of programmes, joint programmes with other funding sources and in-kind support;
 - (iii) promote IOC to a wide audience as a "competent international organization in marine scientific research under the United Nations Convention on the Law of the Sea;
 - (iv) increase the availability of knowledge about IOC and the benefits of its activities in all relevant sectors of society;
 - (v) ensure that their respective governments are aware of their responsibilities to IOC, to confirm

and reinforce its increased status;

3. Encourages all Member States to contribute to the IOC Trust Fund. The Assembly adopts the mechanism recommended by the Executive Council at its Twenty-ninth Session to allow contributors to discuss the collective use of these and other available funds within the general programme direction set by the Assembly;
4. Instructs the Executive Secretary IOC and the elected officers of the IOC to vigorously continue exploring opportunities for funding and joint programmes with developmental and other regional, intergovernmental and non-governmental organizations.

Budgetary Responsibility and Administrative Efficiency

5. Instructs the Executive Secretary IOC to provide to Member States the estimated resource cost for each programme activity. These together with the proposed draft programme and budget to be sent sufficiently in advance of the Assembly to provide adequate time for their careful consideration;
6. Decides that an open-ended sessional working group shall be formed at each Assembly to consider the IOC Programme and Budget and make a recommendation to the Assembly.

Objective Methodology for Regular Evaluation of the IOC programmes, Structure and Procedures

7. Instructs the Executive Secretary IOC to review structures and procedures of the IOC and the IOC Secretariat the review to be examined initially by the IOC officers and thereafter reported to the IOC Assembly;
8. Instructs the Executive Secretary IOC to draw up a proforma document on the basis of existing ones, for the purposes of monitoring implementation and performance of a programme/activity. The proforma document should be completed at least annually by those responsible for implementing the programme and provided to the IOC Secretariat for inclusion in the reports to the IOC Governing Bodies;
9. Decides to determine a schedule for evaluation of programme activities.

Frequency of Meetings of IOC Governing Bodies

10. Notes that, based on current UNESCO meeting schedules, the IOC Executive Council should meet in September of the year preceding the General Conference, and the Assembly should meet in June/July of the same year as the General Conference, subject to availability of facilities.

The Role of the Elected Officers of IOC, and the Need for a Bureau

11. Directs the ad hoc Study Group, in its consideration of the Statutes and Rules of Procedure, to incorporate changes to:
 - (i) increase the number of vice-chairmen to five, and specify that there will be one vice-chairman for each geographic region;
 - (ii) abolish the hierarchical order of vice-chairmen;
 - (iii) specify election procedures to reflect the above;
12. Requests the officers of IOC to meet immediately after the election to determine, and announce to the Assembly:

- (i) the prime subject areas of responsibility for each vice-chairman;
- (ii) the order in which they will replace the Chairman when he or she is unavailable.

Evaluation and Advice on Staffing Matters

- 13. Instructs the Executive Secretary IOC to re-examine the organizational structure of the Secretariat bearing in mind the need to have core staff leading programmes and provide an analysis, including an organigramme, of the outcome with particular regard to any problems of staff resources;
- 14. Encourages Member States to provide operational funding when providing seconded staff to the IOC Secretariat;
- 15. Encourages Member States to provide home-based secondees to the IOC Secretariat and to sponsor trainee positions.

Options for Mobilization of Support

- 16. Encourages all Member States to assist the Executive Secretary IOC and officers to identify opportunities offered by marine programmes of multilateral and regional agencies and to mobilise additional resources through co-financing;
- 17. Decides that "programme support-raising conferences" shall be organized periodically to bring together Member States and potential donors with the aim of securing additional funds for the IOC.

PART II - Further Study

The Assembly requests the *ad hoc* Study Group to continue its studies of unresolved tasks in its Terms of Reference, including:

- 1. The Statutes and Rules of Procedure of the IOC.
- 2. All aspects having a bearing on geographic distribution.
- 3. Options for mobilization of support.
- 4. The proposals presented in Annex 5 of Document IOC-XIX/2 for achieving a consistent and harmonized evaluation procedure.

Resolution XIX-16

SUPPORT FOR THE GLOBAL PROGRAMME OF ACTION FOR PROTECTION OF THE MARINE ENVIRONMENT FROM LAND-BASED ACTIVITIES

The Intergovernmental Oceanographic Commission,

Recalling the relevant provisions of Agenda 21¹, in particular chapters 17, 33, 34, 38 and other

¹Report of the United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June, 1992, Vol. 1; Resolutions adopted by the Conference, Res. 1, Annex II.

related chapters, and the Rio Declaration on Environment and Development²

Noting the successful conclusion of the Intergovernmental Conference to Adopt a Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA LBA) (Washington, DC, 23 October -3 November 1995),

Also noting the United Nations General Assembly Resolution A/51/189 of 16 December 1996 on Institutional Arrangements for the Implementation of the GPA LBA,

Having considered the Washington Declaration on Protection of the Marine Environment from Land-based Activities³ and the GPA LBA ; as well as the proposal of the United Nations Environment Programme on Institutional Arrangements and Implementation of the Global Programme of Action and relevant recommendations of the Commission on Sustainable Development, including the proposal to establish a clearing-house mechanism,

Stressing the need for international co-operation, as outlined in sections IV. A and B of the Global Programme of Action, in capacity-building, technology transfer and co-operation, and the mobilization of financial resources, including support for developing countries, especially the least developed countries, countries with economies in transition and small island developing States,

Recognizing that The Netherlands has offered to host the UNEP-GPA LBA at its Coastal Zone Management Center,

Urges Member States to take the necessary measures for the implementation of the Global Programme of Action (GPA) at national and, as appropriate, regional and international levels;

Calls upon bilateral donors and international, regional and sub-regional financial institutions and mechanisms, including the Global Environment Facility, and other competent development and financial institutions to:

- (i) give appropriate priority to funding country-driven projects aimed at the implementation of the Global Programme of Action;
- (ii) assist with capacity-building in the preparation and implementation of national programmes, and in identifying ways and means of funding them (bilaterally and internationally);
- (iii) improve their co-ordination so as to enhance the delivery of financial and other support;

Invites other organizations and major groups to initiate and strengthen their actions to facilitate and support the effective implementation of the Global Programme of Action;

Endorses the IOC active participation in the implementation of the GPA LBA and the UN General Assembly Resolution A/51/189;

Instructs the Executive Secretary of the Intergovernmental Oceanographic Commission to prepare, for the consideration of the Twenty-first Session of the UNEP Governing Council and the Thirtieth Session of the IOC Executive Council:

- (i) a progress report on IOC's programmatic contribution to the GPA, particularly the clearing-house mechanism, and

²1 bid Annex 1.

³A/51/116, Annex I, Appendix II,

⁴1 bid Annex II.

- (ii) specific proposals for strengthening IOC's role in the implementation of the GPA.

Resolution XIX-17

SYNTHESIS - ASSESSMENT OF OCEAN SCIENCE

The Intergovernmental Oceanographic Commission,

Recalling its Resolution XVII-17, "1998 - The International Year of the Ocean",

Recognizing that the ocean plays a decisive role in shaping the life of this planet,

Recalling that the economic value of the ocean is enormous and that it is a significant source of food, energy, minerals and many uses of vital importance to individual Member States and to the world community,

Noting that the majority of the world population is located in the coastal area resulting in increasing heavy impact and pressure on marine resources and the quality of the marine environment,

Noting further that integral management of the multiple uses and resources of the marine environment critically depends upon access to scientific information and observations and interpretation of these,

Mindful of the uniqueness of the IOC as the only intergovernmental body wholly devoted to the study and observation of the ocean, related training, education and mutual assistance;

Recognizing the responsibility of the IOC to ensure that scientific results, information and data from its programmes are properly assessed and transmitted to users and decision makers,

Decides to undertake the preparation of an assessment and analysis of the state of marine science, in particular regarding our scientific capability to understand ocean processes and to use such understanding for the sustainable development of Member States;

Commits itself to support this effort through the existing IOC mechanisms and bodies;

Decides to foster co-operation with other on-going international efforts, particularly Global International Water Assessment (GIWA) of UNEP/GEF, and invites the relevant bodies to participate in the IOC assessment;

Invites ICSU, including SCOPE and SCOR, to contribute to this assessment in their respective fields of competence and to establish with IOC a joint advisory group of up to six members to assist the assessment and analysis;

Instructs the Executive Secretary IOC to present an evaluation and substantial outline to the Executive Council in 1998, and a preliminary report to the Assembly in 1999;

Decides to establish for this purpose a steering committee consisting of the IOC Officers and the Chairs of the regional subsidiary bodies with Chairman IOC as Chair and the Executive Secretary as *Ex-Officio* Member and Secretary.

Financial implication during coming biennium: US\$ 150,000.

Resolution XIX-18

1998 INTERNATIONAL YEAR OF THE OCEAN

The Intergovernmental Oceanographic Commission,

Recalling its Resolution XVIII-3, "UN Year of the Ocean 1998", and discussions held at the Twenty-ninth Session of the Executive Council relevant to the subject,

Noting with satisfaction the progress achieved by the IOC Member States and the IOC Secretariat in planning activities dedicated to the objectives of the 1998 International Year of the Ocean (IYO),

Having considered the proposals to be associated with the IYO as presented in Document IOC-XIX/2 Annex 3 and its Appendices,

Realizing that to accomplish the leading role of the IOC in the further planning and the implementation of the activities associated with the IYO, there is a need for financial and staff resources,

Decides:

- (i) to endorse actions taken by the IOC Secretariat in the planning of IYO;
- (ii) to accept the theme of the IYO as "Our Common Heritage";
- (iii) to invite the UNESCO programmes concerned, jointly with the IOC Secretariat, to facilitate co-ordination and increase support in meeting the IYO objectives;

Also decides:

- (i) to support the IYO-dedicated national activities by encouraging Member States to make funds available through the IOC Trust Fund arrangements;
- (ii) to encourage Member States to focus attention in the coming months before 1998 on the public information activities as presented in Document IOC-XIX/2 Annex 3;
- (iii) to instruct the Executive Secretary to adjust the resources of the IOC Secretariat so as to ensure proper and stable implementation of preparatory activities;
- (iv) to invite Member States to make arrangements for the signature of the Ocean Charter and use it as a good opportunity for increasing awareness of the importance of the World Ocean;

Instructs the Executive Secretary IOC to undertake efforts in implementing the co-ordination of the planned national, regional and international activities and to strengthen links of co-operation with UNESCO programmes and international organizations in the venture by using appropriate co-ordination mechanism such as ICSPRO and ACC Sub-Committee on Oceans and Coastal Areas;

Invites Member States and the Director-General of UNESCO to provide necessary resources for implementing the co-ordination of the IOC programme activities dedicated to the IYO objectives."

• Financial implication: estimated at US\$150,000.

Resolution XIX-19

IOC AND UNCLOS

The Intergovernmental Oceanographic Commission,

Having examined the Summary Report of the First Session of the open-ended Intercessional Working Group on IOC's Possible Role in Relation to the United Nations Convention on the Law of the Sea (IOC-LOS), endorsed by the 29th Executive Council,

Endorses the above-mentioned Summary Report;

Recognizes the value of having an advisory mechanism on the possible implementation of the recommendations and proposals included in the above-mentioned Summary Report;

Decides therefore to establish an open-ended Advisory Body of Experts on the Law of the Sea (ABE-LOS), to work in accordance with the terms of reference contained in the Annex to this Resolution;

Invites interested Member States to designate a maximum of two experts to the ABE-LOS, taking into account the need for an adequate balance in the membership of the ABE-LOS between experts with training in the Law of the Sea and experts with training in marine sciences, preferably familiar with IOC activities and programmes.

Annex to Resolution XIX-19

**Terms of Reference for the
Advisory Body of Experts on the Law of the Sea
(ABE-LOS)**

1. The ABE-LOS shall provide advice upon request to the IOC Assembly, Executive Council and/or Executive Secretary IOC on the possible implementation of the proposals and recommendations included in the Summary Report of the First Session of the open-ended Intercessional Working Group on IOC's Possible Role in Relation to the United Nations Convention on the Law of the Sea (IOC-LOS) (Document IOC/INF-1035).
2. The ABE-LOS shall take into account
 - (i) The purpose and functions established by the IOC Statutes and Rules of Procedure;
 - (ii) The rights and duties of the coastal States as stipulated in UNCLOS;
 - (iii) Other applicable provisions of UNCLOS related to marine scientific research;
 - (iv) The role of the bodies established under UNCLOS;
 - (v) The need to co-ordinate efforts with other relevant bodies in the United Nations system and/or other relevant international organizations.
3. The bulk of the Advisory Body's work shall be done by correspondence, co-ordinated by the Executive Secretary IOC.

Financial implications:

Work by correspondence mainly; if any meeting, participation at national expense; service of potential meeting, including relevant interpretations if required, at IOC expense.

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Resolution 20

PROGRAMME AND BUDGET 1998-1999

The Intergovernmental Oceanographic Commission,

Having considered the Proposal on the Draft Programme and Budget 1998-1999 as contained in Document IOC-XIX/2 Annex 4,

Recalling the advice provided by IOC ad hoc study groups and ensuing decisions of IOC Governing bodies, notably through IOC Resolution XVII-20, in regard to the formulation of the programme and budget as well as in regard to the evolution of the IOC within UNESCO and its role within UNESCO as an intergovernmental body with functional autonomy,

Expressing its appreciation to UNESCO which, through decision made at the 28th General Conference, decided that the funding provided by UNESCO to the IOC in support of its programme, as well as the associated staff funding, would be considered as an 'incompressible' budget,

Being of the view that this has led to greater dependability in regard to IOC funding and greatly facilitates the basic functioning of the Commission,

Noting that substantial supplementary support has been mobilized by Member States, notably through contributions to the IOC Trust Fund,

Reiterating the need to obtain longer-term and more advance commitments from Member States that intend to support the work of IOC through both in-kind and direct support in order to provide a more reliable forecast of anticipated income and its impact on programme implementation,

Recognizing the leading role of UNESCO and its IOC in relation to the 1998 International Year of the Ocean and the potential offered by this event to increase public awareness and stimulate governmental recognition of the importance of the ocean to the planetary ecosystem,

Approves, as a basis for future planning, the IOC Draft Programme and Budget 1998-1999 of \$12,650,000, made up of: \$6,469,000 from the UNESCO Regular Programme, of which \$3,110,000 for programme implementation and UNESCO staff costs of \$3,359,000 for 22 staff positions; and an estimated \$6,181,000 in extra-budgetary funding, of which \$3,400,000 for programme implementation and \$2,781,000 for seconded staff (direct or in-kind); in addition **the Assembly requests** an increase of 3 additional professional posts from UNESCO;

Authorizes the IOC Executive Council at its Thirty-first Session to approve any adjustments to the Programme and Budget that maybe required in the light of resources and expenditures;

A

In regard to UNESCO,

Having taken note of the IOC entry contained in paras 02056-02062 of the Draft UNESCO Programme and Budget 1998-1999 (Draft 29 C/5),

Having been informed that the Members of the UNESCO Executive Board at its 152nd session will finalize their recommendations on the Draft 29 C/5 under cover of the 29 C/6, by which the Draft UNESCO Programme and Budget 1998-1999 will be transmitted to the 29th UNESCO General Conference,

Expresses its appreciation to the Director-General for the continued initiatives taken to clarify the role of the IOC within UNESCO and to create favorable conditions within which the IOC can

respond properly to its mandate;

Recognizes, with appreciation, the essential support provided by UNESCO to the work of the IOC and that this has been greatly enhanced by the principle of an 'incompressible budget as decided upon by the 28th General Conference;

Calls attention, however, to the increasing gap between the responsibilities being assumed by IOC and the number of professional staff posts provided by UNESCO;

Considers that the basic functioning of the IOC needs to be ensured by a minimum of 25 UNESCO staff posts⁵, rather than the 22 presently forecast in the Draft 29 C/5;

Invites the Director-General to transmit to the 152nd Session of the UNESCO Executive Board and the 29th UNESCO General Conference the views of the IOC as reflected in this resolution and its attachment;

Further invites the Director-General to give full consideration and maximum approval to requests related to ocean and coastal area concerns that are submitted under the UNESCO Participation Programme;

B

In regard to IOC Member States

Recognizing that the resources made available to the Commission through voluntary contributions of Member States to the IOC Trust Fund, secondment of staff and in-kind support are an essential element for effective implementation of IOC programmes,

Noting that more realistic planning and implementation of activities, together with evaluation and reporting aspects, are dependent upon firm and longer-term commitments that identify the source, amount and time-period envisaged by Member States within their national policy regarding their support to the IOC,

Emphasizing the vital role played by IOC national contacts in developing concerted action within Member States in regard to ocean and coastal areas within the UN System and especially through UNESCO as IOC's parent body,

Recalling the opportunities offered by the UNESCO Participation Programme to support national and regional activities and to provide assistance to Member States,

Encourages Member States to present proposals under the UNESCO Participation Programme in subject areas of relevance to the IOC programmes;

Invites Member States to provide a listing of their contributions to the IOC, both financial and in-kind, on a regular basis as recommended by the Nineteenth Session of the IOC Executive Council (Doc. IOC/EC-XIX/3, paras. 166-172);

Urges Member States to continue and increase their support to the IOC and, whenever possible in doing so, to make longer-term and firm commitments;

Calls upon Member States to take energetic action through appropriate national channels so as to

⁵ ADG/Executive Secretary, Deputy Executive Secretary, two posts for each of the four IOC major programme objectives, one post for programme management, one for the IOCARIBE Regional Sub-commission and 13 general service posts (\$651 ,000 for three additional professional posts).

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ensure that the Commission's views are taken into account during debate at the UNESCO Executive Board and General Conference.

Annex to Resolution IOC-XIX-20

Proposed General Conference Resolution

THE INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

The General Conference,

Recalling that, by amendment of the Statutes of the intergovernmental Oceanographic Commission (IOC) in 1987, the 24th General Conference confirmed that the IOC is established as a body with functional autonomy within UNESCO,

Having taken note of the report on the activities of the IOC during the biennium 1995-1996 and matters brought to its attention by the Nineteenth Session of the IOC Assembly,

1. **Requests** the IOC, in accordance with its statutes, to pursue the programme of work for 1998-1999, as approved by the IOC Assembly at its Nineteenth Session, and in particular:
 - (a) Objective 1 Assess and reduce scientific uncertainties on oceans and coastal areas;
 - (b) Objective 2 Strengthen ocean services and GOOS implementation;
 - (c) Objective 3 Capacity building in developing countries for marine science and observations;
 - (d) Objective 4 Stimulate regional and international co-operation and commitments;
2. **Authorizes** the Director-General to support the IOC by an incompressible financial provision in the amount of \$6,469,000 under the regular programme, Major Programme II, of which \$3,110,000 would be attributed to programme implementation and \$3,359,000 to staff costs.
3. **Further authorizes the** Director-General to strengthen support to the IOC by placing at its disposition three additional UNESCO professional posts, the Costs of which are \$651,000.
4. Expresses its appreciation to the Member States and organizations that have supported the IOC programmes through voluntary and in-kind contributions, including staff, and invites them to continue their support for the 1998-1999 biennium;
5. **Further requests** the IOC, in accordance with Article 2(i) of its Statutes, to make recommendations and provide technical guidance to other UNESCO sectors on the interdisciplinary aspects on oceans and coastal areas of relevance to UNCED follow-up, including implementation of the 1998 International Year of the Ocean and the formulation and execution of the marine science aspects of the project on environment and development of coastal regions and small islands.