

Intergovernmental Oceanographic Commission
Reports of Governing and Major Subsidiary Bodies



**IOC Sub-Commission
for the Caribbean and
Adjacent Regions (IOCARIBE)**

Tenth Session

Puerto La Cruz, Bolivarian Republic of Venezuela
22–25 October 2008

UNESCO

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1. OPENING

1 Mr Guillermo Garcia-Montero, Chairman of IOCARIBE, opened the 10th Session of the Intergovernmental IOC Sub-Commission for the Caribbean and Adjacent Regions at 09:30 hrs on Wednesday 22 October 2008, in the Hotel Maremares, Puerto La Cruz, Bolivarian Republic of Venezuela.

2 Dr Alba Castillo from the Ministry of Sciences and Technology of Venezuela welcomed the participants and delegates from Member States, countries and regional organizations to Venezuela. She referred to the environmental programme for habitats under execution in the Ministry of Science and Technology and its relation to the scientific work carried out by the Sub-Commission. She particularly highlighted the importance of agreements from this meeting for indigenous communities.

3 Captain Julian Reyna, IOC Vice-Chairman, addressed the session on behalf of the IOC Executive Secretary, Dr Patricio Bernal. He highlighted the importance of networking for disaster mitigation and the well-being of coastal populations. Addressing IOCARIBE's achievements, Capt. Reyna pointed to the progress of CLME in using science to prevent marine degradation, the improved Regional Alliances established by GOOS, and the successful completion of IOCARIBE workshops for capacity building and training. He stressed the regional importance of IOCARIBE, encouraging enhanced support from Member States and donors to ensure long-term sustainability. He mentioned the establishment by the Sub-Commission of the Intergovernmental Coordination Group for Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS) as an example of dynamism and continuity of the work of the Sub-Commission.

4 Anticipating that this session will deepen and reflect on IOCARIBE, Capt. Reyna encouraged the Sub-Commission to develop sound recommendations and then thanked the host country of Venezuela.

5 Capt. Julian Reyna then presented certificates of appreciation from the IOC, signed by Patricio Bernal, to Dr Guillermo García Montero and Dr Hernan Pérez Nieto for "Their remarkable contribution and tireless commitment to the fulfilment of IOC (UNESCO) and IOCARIBE's objectives in the Region since the initial establishment of the IOC (UNESCO) Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE)". Dr Alba Castillo and Dr Gustavo Malavé of the Venezuelan Ministry of Sciences and Technology were presented with an IOC Certificate of Appreciation and the IOCARIBE Award, a pre-Columbian winged fish of mythical significance because of its power over two elements: water and air" for hosting the session and continued support to the Sub-Commission and the goals of UNESCO-IOC in research and development of ocean sciences and services for the benefit of Member States in the Region.

6 The full text of Capt. Julian Reyna's remarks is included at Annex III.

2. ADMINISTRATIVE ARRANGEMENTS

2.1 ADOPTION OF THE AGENDA

7 The Chairman introduced this item.

8 **The Sub-Commission adopted** the agenda as Annex I to the report taking into account the need to accommodate the order of business of the session.

2.2 DESIGNATION OF THE RAPPORTEURS FOR THE SESSION

9 The Chairman invited nominations for two Rapporteurs for the present session to assist the Chairman and the IOC (UNESCO) Secretary for IOCARIBE in the preparation of the Draft Summary Report.

10 Venezuela proposed a member of its delegation, Gloria Romero, to act as the Spanish-language Rapporteur and the United States proposed one member of its delegation, Elizabeth Tirpak, to act as the English-language Rapporteur.

11 **The Sub-Commission accepted** the proposals and **welcomed** Ms Tirpak and Ms Romero as the Rapporteurs for the present session.

2.3 CONDUCT OF THE SESSION, TIMETABLE AND DOCUMENTATION

12 The IOC (UNESCO) Secretary for IOCARIBE introduced this item. He briefly reviewed the Revised List of Documents (IOC/SC-IOCARIBE-X/4 Rev. Prov.) and indicated that all working and information documents were available in paper whereas reference documentation is mainly available in electronic form on the IOCARIBE website.

13 Then the Chairman, on behalf of the IOCARIBE's Board of Officers, proposed the following changes to the Provisional Timetable (IOC/SC-IOCARIBE-X/1 add. Prov.):

- Item 3.3 (Programmed Activities for 2009–2011) to be discussed at a later time consecutively with Item 8.1 (Draft Programme and Budget, 2009–2011);
- To combine discussion of Item 3.1 (Statement of the Chairman) with that of item 3.2 (Report by the Secretary on Programme and Budget);
- Item 4.2 (Participation of the Sub-Commission to the 50th anniversary of the IOC) to be presented upon the arrival of the Chairman of the IOC, Lic. Javier Valladares;
- Under Item 4.4 (IOCARIBE Vision 2020). The Chairman proposed that an open discussion (think-tank) take place to facilitate development of a Recommendation regarding the future efforts of the Sub-Commission.

14 **The Sub-Commission agreed** to those changes and **adopted** the provisional timetable corrected along the proposals above.

15 The Chairman encouraged the session to work in Plenary as far as possible.

16 **The Sub-Commission decided** to constitute the following statutory and open-ended sessional committees. The Chairman invited Member States to indicate their wish to participate in those:

- (i) Nominations Committee (Agenda Item 8.3): under the Chairmanship of Mr Francisco Brizuela (Mexico). The composition of this committee was: USA, Mexico, Venezuela.
- (ii) Recommendations Committee (Agenda Item 9): under the chairmanship of Mr Arthur Paterson (USA). The composition of this committee was: Venezuela, Dominican Republic, USA.

17 **The Sub-Commission later constituted:**

- (i) an open-ended sessional drafting group on the Draft Programme and Budget, 2009–2011 (Item 8.1) under the chairmanship of Capt. Julian Reyna, IOC Vice-Chairman, with the following composition: Brazil, Mexico and USA. The Chairman reminded the Session that this group would draft a recommendation

on this respect taking into account all financial implications implied by decisions and draft Recommendations made during this session.

- (ii) an open-ended sessional drafting group on IOCARIBE Vision 2020 (Item 4.4).

18 The List of Documents is given in Annex IV, the List of Participants in Annex VI and the List of Acronyms in Annex VII.

3. REPORT OF THE IOCARIBE SECRETARY ON INTERSESSIONAL ACTIVITIES

3.1 STATEMENT OF THE CHAIRMAN

19 The Chairman introduced this item. He delivered his statement emphasizing that he would share his personal opinion on the principal failures and difficulties of the Sub-Commission while calling for a frank and open debate on activities or projects for the coming years.

20 Mr Garcia referred to a document he had written in 1995 (“IOCARIBE Programmes: A Personal Opinion”) stressing the need to: (i) address urgent, common national priorities; (ii) identify regional priorities with available resources; (iii) find ways to apply institutional and national activities to IOCARIBE initiatives; and (iv) continue building strong relationships with international bodies and mechanisms for funding or other opportunities.

21 The Chairman emphasized that the routine of scientific programme and activity formation, services and capacity building, must be broken in order to be able to adapt to the current realities shared by Member States and IOCARIBE. He then referred to several factors that continue to weaken the level of activity of the Sub-Commission: (i) increasing regional economic crisis; (ii) insufficient national capacity for regional coordination, capture of external financial support and establishment of systematic programme evaluation; (iii) poor integration with regional organizations; inconsistent national representation in intergovernmental meetings and activities; (iv) lack of regional leadership in programmes and interventions; (v) negligible national contributions to regional programmes.

22 The Chairman then outlined strategies to maintain and improve the work of the Sub-Commission. He stressed that the region lacks effective leadership and that potential leaders must be identified at the national-regional scale. Agreements between regional and international organizations and other mechanisms for funding must be created and sustained. Member States were called upon to designate their IOCARIBE National Focal Points and to play an active, catalytic role in promoting the Sub-Commission activities within their respective nations. As well, alternatives and actions for strengthening the regional IOCARIBE Sub-Commission must be identified in order to guarantee its continued existence within UNESCO and the IOC.

23 Finally, Mr Garcia addressed the UNESCO’s re-location of the IOCARIBE Secretary to a permanent post to the UNESCO Office in Kingston, Jamaica. He called on Member States to consider the impact on the Sub-Commission’s very important work based in Cartagena, Colombia.

24 The Chairman recommended further discussion on this issue under agenda item 3.2. (Secretary’s report on Programme and Budget.)

25 Mr Garcia’s statement is included at Annex III.

3.2 REPORT BY THE SECRETARY ON PROGRAMME AND BUDGET

26 The IOC (UNESCO) Secretary for IOCARIBE introduced this item. He informed the session on intersessional activities 2006–2008. He also referred to the developments and state

of implementation of the thirteen recommendations approved by the Sub-Commission and endorsed by the IOC Executive Council through Resolution EC-XXXVII.6 (Paris, 21–28 June 2006).

- 27 According to the recommendations SC-IOCARIBE-VIII.2 and SC-IOCARIBE-X.2 there was a focus on the Caribbean Large Marine Ecosystem CLME Project PDF-B. The implementing agency for the project was UNDP, while the executing agency was IOC through IOCARIBE. The project lasted 18 months with a technical secretariat located at the Centre for Resource Management and Environmental Studies (CERMES), University of the West Indies in Cave Hill Campus, Barbados. Funding for the project was issued by a number of collaborating agencies and organizations, including the Global Environmental Facility (GEF), 26 participating countries in the Wider Caribbean Region, IOC (UNESCO), and UNDP and amounted to a total of USD 900,000. An additional USD 1,250,000 was contributed by Member States and other partner organizations.
- 28 The PDF-B project terminated in September 2007 when the Full-Sized Project Proposal USD 7,080,000 was submitted to GEF and endorsed by 23 countries. Those Countries and partners will contribute an additional USD 48,300,000 in support of the activities proposed over a four-year period. With an approval of the proposal in April 2008 by GEF. The Selection Panel, composed of UNOPS, UNDP, IOC, undertook the contracting procedure and the selected candidate is expected to begin in January 2009. Preliminary works for the project will begin in November 2008.
- 29 The Sub-Commission approved the ICG Action Plan for the Establishment of the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions. This has enabled the development of the necessary infrastructure, experience and information using the human and financial resources.
- 30 The International Bathymetric Chart of the Caribbean Sea and Adjacent Regions (IBCCA) has published 14 of 16 Sheets, which are available in 1:250000 resolution. An English version of the CD-ROM for IBCCA data is currently available in digital form. The Secretary stressed the importance of bathymetry in order to work with numerical models for planning and forecasting purposes.
- 31 IOCARIBE-GOOS has established proposals for a sea level network pilot project for the Caribbean and is seeking financial support. The Steering Committee will be represented in the GRA Forum (Guayaquil, Ecuador, 25–27 November 2008).
- 32 Thanks to the support of Dalhousie University in Canada (CIDA), three JPOs have begun to work in the IOCARIBE office in September 2008. They have been supporting activities under GOOS, ICAM and Capacity Building.
- 33 The Secretary stressed the importance to create more initiatives for capacity development and urged Member States to provide continuous support. Leadership workshops were held in Kingston, Jamaica and Havana, Cuba. A bid-writing workshop is planned to be held in Cartagena, Colombia, 18–21 November 2008 (Project Development Workshop: Management of problems related to Coastal Erosion in Latinamerica).
- 34 The IOCARIBE contribution to the UNESCO-IOC Document on Programme and Budget (Document 34 C/5) was prepared and sent to IOC for inclusion.
- 35 All requested funds were obtained for the projects CLME, ODINCARSA and Capacity building. However, the Secretary pointed out that many projects, such as IOCARIBE-GOOS have not received the requested budget. Of the total requested budget, only 32.5 per cent was obtained. Thus the Sub-Commission should think of a new strategy to receive funds in a sustainable matter.

- 36 In order to remedy the administrative inefficiency of the regional operations of IOCARIBE resulting from the changes in UNESCO procedures, the Director-General of UNESCO has created one permanent post for the Head of IOCARIBE Secretariat, through the UNESCO Regional Office in Kingston, Jamaica, having additional responsibilities for UNESCO Natural Science matters for CARICOM countries.
- 37 The Secretary emphasized that continued financial support from the Member States will be necessary to achieve the mission of IOCARIBE.
- 38 The Sub-Commission commended the Secretary for exemplary work given minimal resources and voiced concerns with regard to moving the IOCARIBE Secretary from Cartagena, Colombia to the UNESCO Office in Kingston, Jamaica.
- 39 Barbados urged Member States to further support the important work of the Sub-Commission while reiterating their continued interest and support for achieving tangible results through IOCARIBE.
- 40 Mexico agreed with the IOCARIBE Chairman in particular with the importance of regional leadership and pledged continued support to the Sub-Commission.
- 41 Colombia reiterated support to IOCARIBE and ensured Colombia's willingness to continue hosting the IOC Regional Office in Cartagena.
- 42 Venezuela agreed with Colombia and the IOCARIBE Chairman in keeping the regional IOCARIBE Office in Cartagena and urged the Sub-Commission to prepare a Recommendation to that end.
- 43 Panama expressed concern over the future of IOCARIBE activities due to a change in location of the Secretary and urged Member States to let IOC know as soon as possible.
- 44 The Representative of CARICOM-RFM, Mr Milton Haughton, emphasized how these options need to augment capacities and not just maintain the status quo because of the long-term importance of ocean resources to the region.
- 45 The Chairman suggested that Member States present a Recommendation to the 181st Session of the UNESCO Executive Board (Paris, 14–30 April 2009) as well as at the 25th Session of the IOC Assembly in June 2009.
- 46 In response to a question from Venezuela, the Secretary clarified that minimum requirement for the Secretariat is an administrative unit composed of a UNESCO-staff Administration Officer (AO) and a locally-recruited staff accountant.
- 47 Responding to a question from the Dominican Republic, the Secretary informed the Sub-Commission that similar administrative arrangements and limitations exist for the IOC Sub-Commission for the Western Pacific (WESTPAC).
- 48 Mr Milton Haughton (CARICOM-RFM) noted that the dichotomy between the RP budget and the Extrabudgetary (EXB) funds seems ill-conceived for sustainability. He urged Member States to seek political interventions within UNESCO to this end.
- 49 The United States emphasized the need to deliver a strong message from the Session on these issues.
- 50 **The Sub-Commission adopted Recommendation SC/IOCARIBE-X.1.**

3.3 PROGRAMMED ACTIVITIES FOR 2009–2011

51 The IOC (UNESCO) Secretary for IOCARIBE introduced this item.

52 Captain Julian Augusto Reyna, IOC Vice-Chairman, presented a detailed chronogram of activities for 2009–2011 for approval by the Sub-Commission. The following programmes were selected to be the main focus of IOCARIBE activities for 2009–2011: GOOS/GLOSS, ICAM, Capacity Development, HAB-ANCA, CLME, ODINCARSA, CMA (IODE), IBCCA, and Tsunami and Coastal Hazards. It was noted that GOOS and GLOSS would be grouped together due to their similarities and that the main focus of ICAM will be the Project to “Demonstrate Approaches for Nutrient and Sediment Reduction at Selected Pilot Study Areas in the Wider Caribbean Region” (IOC/SC-IOCARIBE-X/Inf.4; item 5.1.5).

53 **The Sub-Commission approved** the programmed activities presented for 2009–2011 as they appear in Recommendation SC/IOCARIBE-X.4 adopted under item 8.1..

4. POLICY ISSUES

4.1 IOCARIBE STRATEGIC SCIENCE PLAN AND RELATED SERVICES FOR 2006–2016

54 The Chairman introduced this item. The IOCARIBE Medium-Term Strategic Science Plan 2006–2015 (Doc. IOC/SC-IOCARIBE-IX/6 Prov.) takes into consideration the document “Annotated Outline for the Scientific Plan” resulting from the first Workshop to formulate the Scientific Plan (Veracruz, Mexico, 1–3 December 1999); the document “Framework for the IOCARIBE Strategic Science Plan and Related Services 2001–2010” prepared during the IOCARIBE Ad-hoc Group of Experts Workshop to formulate the Strategic Science Plan 2001–2010 (Manzanillo, Colima, Mexico, 14–16 November, 2001); the document “IOC Ocean Sciences Section: Perspectives and Expected Results” (IOC/INF-1206, 2005) and recommendations adopted by Member States during the 6th, 7th, and 8th Sessions of the IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE) (San Jose, Costa Rica, 26–29 April 1999; Veracruz, Mexico, 25–28 February 2002; Recife, Brazil, 14–17 April 2004; and Cartagena, 19–22 April 2006).

55 The IOCARIBE Strategic Science Plan summarizes the implementation of scientific programmes of the Sub-Commission and its strategic methodology. The objectives of the IOCARIBE Strategic Science Plan are to: (i) support strategic planning of IOCARIBE Member States in relation to the development of its marine sciences, oceanic observations and associated services; (ii) facilitate a coherent management of regional programmes related to the marine-coastal environment and its resources; (iii) strengthen scientific basis for supporting IOC’s regional programmes. The plan identifies the following Main Lines of Action: Oceans and Climate; Ocean Ecosystem Science; Marine Science for Integrated Coastal Area Management; and Extreme and Dangerous Natural Events.

56 After the approval of the final draft by the Members of the Board of Officers and the IOCARIBE Sub-Commission, the “IOCARIBE Medium-Term Strategic Science Plan (2006–2015)” was finalized and is now available at the Sub-Commission website in both English and Spanish.

57 **The Sub-Commission reaffirmed** on the continued relevance of the IOCARIBE Medium-Term Strategic Science Plan 2006–2015 (IOC/SC-IOCARIBE-IX/6 Prov.).

4.2 SUB-COMMISSION'S PARTICIPATION ON THE 50TH ANNIVERSARY OF THE INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION

58 The IOC Chairman, Lic. Javier Valladares, introduced this item referring to the IOC Indicative Plan of Action contained in Resolution EC-XLI.2 from the 41st Session of the Executive Council.

59 The initiatives to commemorate the 50th anniversary of the IOC will start on 15 June 2009 and will last until 10 December 2011. The initiatives contribute to three types of expected benefits: (i) raising interest and commitments to IOC; (ii) recording the scientific and international context as well as the achievements and perhaps limiting factors and failures of the first 50 years; and (iii) widely promoting the current work of the IOC.

60 The IOC Chairman stressed that the primary goal of celebrating the 50th Anniversary is to use these initiatives to raise the profile of the IOC at all levels in order to increase fundraising opportunities. The initiatives will be at global, regional and national levels and can easily supplement activities already planned during this period. The IOC Chairman emphasized that the IOC is not in a position to provide funding from the Regular Programme Budget for 50th Anniversary initiatives.

61 The IOCARIBE Chairman referred to the major initiative proposed for the organization of a World Ocean Conference to synthesise a global consensual view of the importance and risks faced by the oceans, especially among youth. He referred to the upcoming ColacMarCuba 2009 conference in Havana, Cuba (26–30 October 2009) as a means to get youth involved. He particularly stressed the importance of 50th Anniversary initiatives to promote leaders from the next generation.

62 Several Member States expressed the wish that the 50th anniversary primarily create momentum to promote education in marine sciences.

63 Panama mentioned the need for programmes and scholarships for Central American youth to study physical oceanography.

64 Dominican Republic proposed that a 50th Anniversary initiative be linked to a high school programme focussed on beach observations. They proposed another initiative to be worked into a national coastal zone awareness programme scheduled for implementation at the beginning of 2010.

65 Brazil suggested that further consideration be given to establishing a regional scholarship fund as a way to pool resources.

66 Venezuela suggested that the IOC Anniversary be linked to the Anniversary of the Oceanographic Institute of the University of the Oriente (Instituto Oceanográfico de Venezuela Universidad de Oriente). Venezuela proposed to organize an oceanographic cruise in the Caribbean region for September/October 2009. Member States were encouraged to provide expertise through forming partnerships with various regional institutions (CPPS, Universidad del Oriente, and others). Venezuela also reminded the Session that five oceanographic vessels will shortly be available to service the array of moorings proposed for the ocean observation.

67 The IOC Chairman mentioned that Venezuela's offer provides an excellent opportunity to undertake regional research which has been an objective of IOCARIBE since the 1960s and mirrors the IOC Floating University Programme designed to complement education with scientific research. The IOCARIBE Chairman suggested that Venezuela present the cruise idea at the ColacMarCuba 2009 conference.

68 Mexico proposed that oceanographic vessels undertaking anniversary research cruises fly an IOC 50th Anniversary flag. Mexico will distribute a DVD to all oceanographic educational institutions, potentially reaching 25,000 students, and provide specific classes focused on IOC initiatives over the past 50 years.

69 Barbados recommended using the media to publicize the work of the IOC. In particular, an impactful DVD of the Commission's work could be developed.

70 Colombia mentioned that they are looking at the possibility of dispersing the CLME Project as part of the 50th Anniversary of the IOC. They suggest that the CLME could be used by all nations as something to rally behind for the IOC in the region.

71 The United States supported efforts to inaugurate the IOC 50th Anniversary and stressed the importance of using the initiatives to achieve the desired outcomes of integrated IOC objectives.

72 The IOC Chairman added that it would send a very strong message to the IOC from the Sub-Commission if a list of initiatives from IOCARIBE includes both titles for proposed initiatives as well as the specific IOC objective that is addressed.

73 **The Sub-Commission adopted Recommendation SC/IOCARIBE-X.2.**

4.3 IOC BIENNIAL STRATEGY 2008–2009

74 The IOCARIBE Chairman introduced this item. He presented to the Session the IOC Biennial Strategy 2008–2009 as adopted by the Assembly through Resolution XXIV-2 and the draft Biennial Strategy for 2010–2011 adopted by the Executive Council this year as Resolution EC-XLI.5.

75 **The Sub-Commission requested** Member States to take into account the IOC Medium-Term Strategy and the IOC Biennial Strategies 2008–2009 and 2010–2011 in developing their national plans and programmes for ocean sciences and ocean observations, as well as in planning their contribution to and participation in the programmes of the Commission in the Region.

76 The Secretary encouraged Member States to consider the Report on the Status of Subsidiary Bodies (Doc IOC/EC-XLI/2 Annex 5) as well as Section 3 of the Progress Report on Budget Execution during the April 2006 to October 2008 Intersessional Period (IOC/SC-IOCARIBE-X/2 Annex 2), ("Programme and Budget Cycle. Coordination with IOC and UNESCO Cycles and Strategies") when developing their national plans and programmes.

4.4 IOCARIBE VISION 2020

77 The Chairman introduced this Item. He referred to the IOCARIBE Medium-Term Strategic Science Plan for 2006–2015 (Doc. IOC/SC-IOCARIBE-IX/6 Prov.) and to the discussions under Agenda Item 4.1.2 of the 41st Session of the IOC Executive Council (Paris, France, 24 June–1 July, 2008).

78 The Chairman facilitated an interactive debate on the Sub-Commission's work and perspectives for science and coastal marine services to the year 2020 and consideration of the Sub-Commission's Strategic Science Plan. Particular attention was given to the identification of strategic guidelines for this period and development of projects funded by the Member States of the region.

79 The Sub-Commission discussed the urgency of addressing climate change impacts, particularly the rise of sea level as well as building capacity in the region, and of increasing the

visibility of IOCARIBE and its programmes. IOCARIBE will need to prioritize its programmes while acknowledging the diversity of cultures, politics and development that exist in the Caribbean Region.

80 A Drafting Group was formed to summarize the strategic ideas into a common proposal of IOCARIBE Vision for 2020.

81 The Sub-Commission reviewed the draft titled "IOCARIBE Vision 2020" and requested further revisions to be made and circulated to Member States by March 2009.

5. REGIONAL PROJECTS

5.1 OCEAN SCIENCES SECTION

6.1.1 Caribbean Large Marine Ecosystem (CLME)

82 Dr Clement Lewsey, IOCARIBE Vice-Chairman, introduced this item.

83 Ms Ydalia Acevedo (Dominican Republic) then presented the project's summary of activities in the place of Dr Robin Mahon (Barbados) who was unable to attend the Session.

84 The Caribbean Large Marine Ecosystem (CLME) Project (doc. IOCARIBE-CLME PDF-B) encompasses 25 GEF-eligible countries and 19 associated territories. The CLME is a USD 56.1 million project, including USD 7.1 million GEF support and co-financing by governments and other multilateral donor agencies of USD 48.3 million.

85 The overall objective of the project is the sustainable management of the shared living marine resources of the Caribbean and involves a multitude of regional and national-level stakeholders. The technical focus of the project is on transboundary living marine resources, both exploited and non-extractable, in an ecosystem context, and emphasis will be placed on living marine governance mechanisms. The CLME project aims to strengthen regional cooperation to reverse degradation of the shared living marine resources. Its regional scope provides a platform for governments and other stakeholders to collectively pursue the shared goals of economic and environmental sustainability.

86 The First Regional Steering Committee Meeting of the Sustainable Management of the Shared Living Marine Resources in the CLME and Adjacent Regions was held in Panama City, 2–3 August 2006. During the meeting the Terms of Reference for the Steering Committee were reviewed as well as roles and responsibilities of the national and intersectoral committees and task teams. The Steering Committee approved the Project Implementation Plan and Budget and Recommendations.

87 Following with the implementation of the CLME Project, TDA/SAP Workshop and Kick-Off Session was held in Bridgetown, Barbados from 23 October to 1 November 2006 and the CLME Project Concept/TDA Synthesis Technical Workshop was held in Kingston, Jamaica, 28 February–3 March 2007.

88 The Final Steering Committee Meeting of the CLME was held in Cartagena, Colombia, 6–8 June 2007. The meeting was attended by senior environmental and sustainable development officials from over 20 countries of the 25 involved States from North, Central and South America and the Caribbean and regional organizations. The Draft Final FSP/TDA Prodoc of the Project was approved by the Steering Committee for presentation to UNDP–GEF in July 2007.

89 The Steering Committee agreed that the project will be administered from a small Project Coordination Unit (PCU) to be located in the offices of the IOC Sub-Commission for the

Caribbean and Adjacent Regions (IOCARIBE) in Cartagena, Colombia. This Unit will be staffed by an internationally recruited Chief Technical Advisor (CTA), a scientific officer and two regionally recruited technical support staff. Administration support staff, including an office manager, secretary and accountant will be hired locally. The PCU will be provided with the basic equipment necessary for the functioning of the project, including computers, copy machines and other materials as needed and appropriate. A project management structure under the guidance of the United Nations Office for Project Services (UNOPS) will be established maintaining the IOC leadership.

90 It was also agreed that the project will implement two demonstration projects targeting specific priority fisheries with the aim of showcasing how the fisheries management policy cycle can be strengthened at the national and local levels and linked vertically to the sub-regional and regional levels. The demonstration fisheries will be: (i) Guianas-Brazil Shrimp and Groundfish; (ii) Eastern Caribbean Flying fish; (iii) Spiny lobster; and (iv) Reef fisheries and biodiversity.

91 Dr Lewsey, IOCARIBE Vice-Chairman, commented that he would like to see the CLME framework evolve to eventually incorporate ICAM issues. Similarly, Venezuela inquired as to the project's potential to incorporate the inevitable effects of climate change. In response it was stated that while the initial phases of the project have already been structured to focus on governance, the project's dynamic design should allow for the incorporation of other concerns as it naturally evolves through future phases.

92 Barbados applauded the work of the project, particularly that of Dr Bradford Brown, and stressed the value of this work to Small Island States, many of which do not have the resources to manage their own marine resources.

93 **The Sub-Commission expressed** its continuing support to the CLME Project.

6.1.2 Pacific Central American Large Marine Ecosystem Project

94 The IOC (UNESCO) Secretary for IOCARIBE, reminded the Session that the main objective of the project is the monitoring and assessment of the Pacific Coast of Central American LME and its resources.

95 The Secretary reported that the Pacific Central American Large Marine Ecosystem Project (PCA-LME) has faced significant delay and remains in its initial phase of progress due mainly to lack of resources.

96 **The Sub-Commission noted** the delay and **recommended** Member States to seek ways and means to support the PCA-LME Project.

6.1.3 Gulf of Mexico Large Marine Ecosystem Project

97 Dr Bonnie Ponwith (USA) introduced this item. She informed the Session that the Project PDF-B phase of the Gulf of Mexico LME has already been achieved and referred to the main objectives. Three pilot projects are proposed: (i) enhancing natural habitat conservation in the coastal and marine areas; (ii) enhancing shrimp protection through ecosystem-based management; (iii) joint assessment and monitoring of coastal condition. The document is currently under review and the Steering Committee has been in good communication over the summer with an upcoming meeting planned for November 2008. The next step will be to populate the oversight committee and the implementation teams for the pilot projects.

98 **The Sub-Commission expressed** its continuing support to the Gulf of Mexico LME Project.

6.1.4 Harmful Algal Blooms (HAB-ANCA)

- 99 Mr Francisco Brizuela (Mexico) presented the progress report on behalf of Mr Ernesto Mancera, Regional Project Coordinator (RPC) of the Working Group on Harmful Algae Blooms in the Caribbean and Adjacent Regions (HAB-ANCA).
- 100 Mr Brizuela presented a summary of events since its 3rd Session held at the Instituto Nacional de Investigaciones Agrícolas (INIA) (Cumaná, Venezuela, 16–18 July 2003).
- 101 The 4th Session of HAB-ANCA (San Andres Islas, Colombia, 22–24 May 2007) was held in conjunction with the development of a Regional HAB Portal Workshop (San Andres Islas, Colombia, 25–27 May 2007).
- 102 The aim of the workshop was to examine the advances of the Working Group, discuss and develop the terms of reference and to plan future activities. Though some of the expected results were not fully achieved, there was an agreement to integrate more countries in the Project and the Second Latin-American Symposium on HABS. Establishing and operating an IOC-SCOR International Programme Office for GEOHAB will also be on the agenda for the next meeting of HAB-ANCA (Antigua, Guatemala, February-March 2009).
- 103 He also referred to the creation and development of a “marketing document” to disseminate information about HAB programmes in the Caribbean region and the role of the HAB-ANCA.
- 104 Barbados noted that translation services would enhance the involvement of English-speaking States and offered to contribute to encourage more of the English-speaking Eastern Caribbean States to participate in future HAB workshops.
- 105 An Advanced Tropical Phycology workshop for graduate students and post-docs (Smithsonian Tropical Research Institute, Panama, 14 August–4 September 2009) was brought to the attention of the Session.
- 106 **The Sub-Commission was in agreement** for the continued support toward the project.

6.1.5 Integrated Coastal Area Management (ICAM): MIC-LAC Project

- 107 Dr Clement Lewsey, IOCARIBE Vice-Chairman, provided an overview on recent development of the Integrated Coastal Area Management (ICAM) in Latin America and the Caribbean (LAC) Project, and then invited input from the Session regarding this work in progress.
- 108 A Workshop for the Formulation of a Draft Project on Integrated Coastal Area Management (ICAM) in Latin America and the Caribbean (LAC), was convened in Cartagena in 2003 (IOC Workshop Report No. 189). Preliminary objectives of a regional project were defined with the purpose of improving existing ICAM capacities in Latin America and the Caribbean.
- 109 As a follow-up to this meeting, IOC and the Government of Flanders (Belgium) sponsored a workshop for the IOC-ICAM Pilot Project in Latin America (Cartagena, Colombia, 16–18 January 2007), (IOC Workshop Report No. 203). The main purpose of the meeting was the development and implementation of a 2-year regional project to support national ICAM mechanisms through the development of regional activities to improve capacity, knowledge and networking leading to an improved flow of information regarding the status of coastal resources and their management. During this pilot Project four Latin-American countries are participating: Chile, Colombia, Ecuador, and Peru.

- 110 Dr Lewsey, then presented the Draft Project Proposal to Demonstrate Approaches for Nutrient and Sediment Reduction at Selected Pilot Study Areas in the Wider Caribbean (IOC/SC-IOCARIBE-IX/Inf. 4) for review and consideration. The main objective of the project proposal is to demonstrate best management practices at the watershed level to control and reduce nitrogen, phosphorous and sediment loadings from non-point sources in the Caribbean region. The project proposes that paired watersheds would be selected for each pilot site. Based on a preliminary assessment, the report recommends that Dominica, the Dominican Republic, Grenada, and Trinidad & Tobago be included in the project.
- 111 Dr Lewsey emphasized the necessity for long-term research to account for seasonal variability. While the pilot project is designed to assess agricultural inputs of pollution, it could be adapted to analyze waste water issues that may be more pertinent to specific study sites.
- 112 Dr Lewsey explained that US NOAA is already working with the suggested demonstration sites within the framework of UNEP programmes, presenting an opportunity for this project to further ongoing initiatives. He later followed this up by pointing out that the pilot project is quite different from the initiatives of the GEF-sponsored Integrated Watershed and Coastal Areas Management in Caribbean SIDS (IWCAM), as the latter does not look specifically at the effects of sediments and nutrients, and the best management practices used to mitigate ensuing processes of marine degradation. The pilot project would thus broaden the spectrum of knowledge accumulated by IWCAM.
- 113 Venezuela enquired as to the application of the pilot project's results towards the efforts of local communities to take action in their area's decision making. In response, the proposed project's structure was elaborated upon, identifying its inclusion of two working groups incorporating the government in one and any interested parties in civil society and non-government organizations in the other.
- 114 Dr Lewsey stated that the marketing of the proposed pilot project is already underway, and is receiving good responses thus far. The starting budget is approx. USD 800,000.
- 115 Cuba firmly expressed its desire to continue ICAM support. The programme is strategic for the whole Caribbean Region, in particular to the Island States, which are economically dependant on the wise use of coastal resources in general.
- 116 The IOC (UNESCO) Secretary for IOCARIBE reported that a dedicated website on ICAM is established (<http://ioc3.unesco.org/icam-lac>) to provide in Spanish and English national and regional information on existing initiatives as well as information resources on capacity building, science and technology, and governance issues. The Session was reminded of the upcoming IOCARIBE capacity-building workshop in Colombia (Cartagena, 18–21 November 2008) which will focus on the common problem of coastal erosion and ideas for organizing solutions into a regional scale initiative. Invited Member States are requested to prepare objectives for integration. In regards to previously described funding challenges, the United States expressed their hope that Member States support ongoing Colombian initiatives for capacity building.
- 117 **The Sub-Commission endorsed** the proposed Pilot Project (IOC/SC-IOCARIBE-X/INF.5).

5.2 OCEAN OBSERVATION AND SERVICES

6.2.1 Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions. IOC Intergovernmental Coordination Group

- 118 Dr Gustavo Malavé, Vice-Chairman of the IOC Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS) introduced this item.

- 119 The Second Session of the ICG/CARIBE EWS (Cumana, Venezuela, 12–14 March 2007). The ICG adopted revised Terms of Reference for its four Working Groups: (1) Monitoring and Detection Systems, Warning Guidance; (2) Hazard Assessment; (3) Warning, Dissemination and Communication; and, (4) Preparedness, Readiness and Resilience and requested Member States to nominate their Tsunami Warning Focal Points (TWFP) and Tsunami National Contact (TNC).
- 120 The Third ICG/CARIBE EWS (Panama City, Panama, 12–14 March 2008) agreed to establish an initial core system for detecting and verifying tsunamis by the end of 2008 and a Caribbean Tsunami Warning Centre in the region at least by 2010. The ICG is currently developing standards for oceanographic network equipment. The ICG attended the OAS Inter-American Defense Board, during which significant discussion regarding the role of the defense community in the effective response to tsunami was held.
- 121 Dr Malavé mentioned the importance of capacity building in order for countries to have the technical background to produce their own models as well as to be prepared for emergency situations. The ICG decided to hold two regional workshops for Tsunami Warning Focal Points (TWFP). One took place in conjunction with ICG/CARIBE EWS-III and the second was a Symposium on Tsunamis which took place two days before the present IOCARIBE Session.
- 122 The United States commented on the importance of the warning system in the Caribbean Region at a time of increasing population growth. The United States makes use of the existing satellite systems to provide all NOAA warnings of tsunamis and other natural disasters as efficiently as possible, 24 hours a day. However, the system can be improved, and such important aspects need to be highlighted in the “IOCARIBE Vision for 2020” (Item 4.4).
- 123 Barbados stressed that despite their access to GTS, many SIDS communities often do not have the capabilities to use them because of lack of capacity.
- 124 Dr Gustavo Malavé closed the discussion with his comment on how local systems in each country need to be strengthened in order to achieve a reliable regional system.
- 125 **The Sub-Commission took note** of the progress of the ICG/CARIBE EWS and **stressed** the importance of developing needed capacity of the countries in the Region.

6.2.1.1 IOCARIBE Tsunami Ad-Hoc Group of Experts

- 126 Mr Hernán Pérez-Nieto, IOCARIBE Vice-Chairman, introduced this item. He informed the Session of the request to dissolve the IOCARIBE Tsunami Ad Hoc Group of Experts considering the establishment of the Intergovernmental Coordination Group for Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS) and its four Working Groups.
- 127 **The Sub-Commission approved** the dissolution of the IOCARIBE Ad Hoc Group of Experts and **encouraged** involvement of its former members in the work of the Working Groups of the ICG/CARIBE EWS.

6.2.2 Oceanographic Data and Information Exchange (IODE)/Ocean Data and Information Network for the Caribbean and South America (ODINCARSA)

- 128 Ms Angelique Brathwaite (Barbados) introduced this item: Established in 2001, ODINCARSA is one of the major programmes IOCARIBE created to develop a network for the management and exchange of oceanographic data and information for IOCARIBE and South America Regions..

- 129 Ms Brathwaite provided a detailed presentation of the Caribbean Marine Atlas Pilot Project (www.caribbeanmarineatlas.net/). This project is a joint initiative of nine countries in the Caribbean region (Barbados, Cuba, Dominica, Grenada, Guyana, Jamaica, Saint Lucia, Trinidad and Tobago, Turks and Caicos Islands) which will identify, collect and organize available geo-spatial data sets into an atlas of environmental themes for the Caribbean region, in support of sustainable development and integrated management of marine and coastal areas in the region. The Pilot Project has a scheduled duration of 14 months (October 2007–December 2008).
- 130 Progress of the Caribbean Marine Atlas has proven to be most successful. The IODE-ICAM Stakeholders Meeting for the Development of a Caribbean Marine Atlas was held in Barbados (Bridgetown, 8–10 October 2007). Barbados and Trinidad and Tobago have been combining their efforts at the regional scale of the project and have almost completed a prototype for the mapping application. The presented prototype exemplified the project's accomplishments to date, generating expectation for a sophisticated product which should soon be available for involved parties. Future efforts will entail programming for online availability and expansion to the national/local scale. Progress of the latter effort will largely depend on the success of National Focal Points which have been given this responsibility. In this regard, increased training and capacity building in technical expertise will continue to play an important role in IODE's efforts in the Caribbean.
- 131 The Secretary reported on the inter-sessional activities of ODINCARSA. He reminded the session that the IOC Strategic Plan for Oceanographic Data and Information Management (2008–2011) was adopted by the IOC Assembly at its 24th Session (Paris, 19–28 June 2007) through Resolution XXIV-9 and that an IOC Data and Information Management Advisory Group provides the governance required to implement the strategy.
- 132 ODINCARSA is activating a cooperative regional network including more than 60 National Institutions from 12 Latin-American countries (Argentina, Barbados, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Panama, Peru, Venezuela, Uruguay), international organizations (CPPS, IAMSLIC, EPCOR-AIA), and 237 experts from different sectors related to Ocean and Marine activities. Objectives for ODINCARSA's upcoming work in 2008–2009 include the pursuit of establishing a Regional Data and Information Center in the Caribbean Region, contributing with GRAs on the development of data and information products and services, contributing to the implementation of the SPIN-CAM Project, and implementing the first phase of Ocean Docs Latin America Project.
- 133 **The Sub-Commission urged** national authorities to continue supporting the enhancement of the ODINCARSA network and to assist activities of the IOC Data and Information Management Advisory Group in the Region. **The Sub-Commission agreed** to continue its support for the Caribbean Marine Atlas Pilot Project.

6.2.3 International Bathymetric Chart for the Caribbean and the Gulf of Mexico (IBCCA)

- 134 The IOC (UNESCO) Secretary for IOCARIBE, introduced this item. He presented a review on main activities developed for collecting the data and producing the corresponding bathymetric charts.
- 135 The 9th Session of the Editorial Board of the International Bathymetric Chart for the Caribbean and Adjacent Regions (IBCCA-IX) took place at the IOCARIBE Secretariat in Cartagena, Colombia, 24–26 May 2006. The Tenth Session of the Editorial Board was postponed and will be held in the first quarter of 2009.
- 136 The IBCCA Project has been successfully accomplishing its editorial work and 14 of 16 sheets have been completed thanks to the joint action of hydrographic services in various

Member States. At IBCCA-IX, Colombia, USA, and Mexico volunteered to finish the remaining work by end of 2008.

137 The Representative of CARICOM expressed concerns about the dissemination of the project's results and inquired as to its upcoming phases.

138 The Secretary clarified that products are provided via the IBCCA website and an English version of the CD-Rom for IBCCA assembled with all data currently available for 13 of the 16 sheets is ready and available.

139 While stressing the project's importance to Small Island States, Barbados expressed its hope that future phases will increase the dataset's resolution. The Secretary confirmed this intention as well as the incorporation of geological and geophysical information.

140 Trinidad and Tobago enquired as to the integration and standardization of data from different periods. The Secretary explained that IBCCA, as one of the GEBCO initiatives, data were duly processed following international hydrographic standards, as per the International Hydrographic Organization requirements.

141 Regarding dissemination of the project's data, Venezuela, the Dominican Republic, and the Representative of CARICOM all requested clarification as to the data's availability for other IOCARIBE projects and public hydrographic services. The Chairman and the Secretary both assured that the data is available for complementary projects and that ongoing digitization and resolution enhancement will increase the interoperability of the project's results. Such cooperation across projects will dually address the Sub-Commission's budgetary concerns by optimizing its resources.

142 **The Sub-Commission took note** of the report and **agreed** to continue its support for IBCCA.

6.2.4 Global Ocean Observing System (GOOS): IOCARIBE-GOOS

143 Mr Guillermo Garcia, IOCARIBE-GOOS Co-Chairman, introduced this item.

144 IOCARIBE-GOOS is a basic source of information, services and products to support sustainable social and economic development, welfare, and safety, through systematic observations and associated research on coasts and seas in the IOCARIBE Region.

145 He informed the Session about new plans of the IOCARIBE-GOOS Steering Committee (SC), which are focussed on the implementation plan in four areas: (i) Initial Observing System and Pilot Projects; (ii) Assessment; (iii) Capacity Building; (iv) Programme Development and Coordination.

146 The IOCARIBE-GOOS was encouraged to collaborate with the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS) to rehabilitate the Sea Level Observing system in the Caribbean Region.

147 The IOCARIBE-GOOS Co-Chairman reported to the Session on the assessment of the existing Sea Level network resources in the IOCARIBE Region and prioritised components of a Caribbean Sea Level Network for tsunami warning purposes.

148 Although the Steering Committee has developed a Strategic Plan and has met to discuss implementation activities, there remains no IOCARIBE-GOOS Implementation Plan, nor the resources to develop and execute such a plan.

- 149 The IOCARIBE-GOOS Co-chairman also presented an overview on main activities and advantages of the GOOS Regional Alliances (GRAs). Following the GOOS strategies and principles, the GRAs are composed of national agencies and organizations committed to the regional implementation of global observation networks. For achieving these goals it is important to build the capacity of the Member States to contribute and benefit from GOOS.
- 150 IOCARIBE-GOOS held a workshop “Sea Level Observation Network for the Caribbean” (San Juan, Puerto Rico, 27–28 November 2006) jointly with the CARIBE-EWS Working Group 1. The outcome was to design and recommend a pilot sea-level observation network for the Wider Caribbean. Its design included tsunami observation requirements and it should serve as a part of the multi-hazards observing system (Ref. to IOC Resolution XXIII-13). Also, IOCARIBE-GOOS held a preparatory meeting in Havana, Cuba, December 2006, where it was decided to hold a “Hands-on” Modelling Workshop to implement, with the collaboration of the Norwegian Meteorological Institute, open-source numerical models for waves and storm surge. Additional tools such as a free graphical presentation software, were also part of modelling workshops.
- 151 Using a grant received by the Steering Committee Chairman, Douglas Wilson, through US White-Water-to-Blue-Water Program, IOCARIBE-GOOS conducted a status report of Caribbean Sea-Level stations. The report showed no functional real-time delivery sea-level stations other than those operated by US NOAA in US territories and Commonwealth.
- 152 Other activities involving IOCARIBE-GOOS: The 3rd Forum of GOOS Regional Alliances (Cape Town, South Africa, 14–17 November 2006); GRASP Meeting of GOOS Regional Alliances for the Atlantic and the Caribbean (Guayaquil, Ecuador, 10–11 October 2006).
- 153 An IOCARIBE-GOOS Steering Committee Meeting is planned for February 2009 with the kind offer of Mexico to:
- (i) Consider ways and means for a practical implementation of an initial observing system
 - (ii) Renew regional and Member State commitments and re-evaluate IOCARIBE-GOOS goals and objectives in the view of the new regional observing system landscape that will be better defined following GRA-4 in November 2008
 - (iii) Determine concrete in-place services that could be proposed to support the existing CLME and Tsunamis projects
 - (iv) Identify national activities that could be considered and contributed by Member States and institutions to the initial observing system
 - (v) Consider ideas on project proposals to be presented to the existing funding mechanisms
 - (vi) Adopt a short-term Action Plan that could be adjusted to the real possibilities of Member States and to the funding available
 - (vii) Consider alternatives for better governing and implementation mechanisms, including and updating of the membership of the Steering Committee and its Board.
- 154 The United States stressed the importance for IOCARIBE-GOOS to move forward and consider revitalization strategies in the upcoming GRA-IV Forum (Guayaquil, Ecuador, 25–27 November 2008). They also mentioned that despite the difficulties, some advances can be highlighted with the project. The World Bank, through the [Caribbean Community Climate Change Centre](#) (CCCCC), sponsored tide gauges to the Caribbean Region and there are many other potential donors that can be approached.

155 Mr Mario Palacios, CPPS Director for Scientific Affairs, informed the session on a summary of CPPS activities and presented some proposals to the Sub-Commission. In particular, CPPS is the Technical Secretariat of the GOOS Regional Alliance for South-East Pacific (GRASP). They are finishing the draft Strategic Action Plan and announced that the Memorandum of Understanding between IOCARIBE-GOOS and GRASP be signed during the IOCARIBE-X Session and the text be annexed to this report (Annex 5). Mr Palacios also invited Member States to the Ministerial Meeting on Climate Change and Its Impact on Marine and Coastal Ecosystems coming up on 28 November 2008 in Guayaquil, Ecuador.

156 Barbados gives its full support to and commends the work of IOCARIBE-GOOS.

157 Venezuela mentioned their plans of installing new buoys in the region. Technological advancements could result in less expensive equipment in greater quantities. This would enable the maintenance of the necessary equipment over a long term in a cost effective manner.

158 Dominican Republic added that they will be installing a tide gauge with help of the tsunami project and US NOAA. There are also plans to purchase another one in January 2004, with contribution of the EU. The tide gauges, although planned to assist in the warning system can also be of service for IOCARIBE-GOOS.

159 **The Sub-Commission expressed** its continuing support to the project of IOCARIBE-GOOS with its pilot Sea-Level Observation Network and gave a special appreciation to all the efforts undertaken by Co-Chairman Douglas Wilson.

160 **The Sub-Commission decided** to convene the IOCARIBE-GOOS Steering Committee in 2009, and **agreed** that the implementation of IOCARIBE-GOOS remains a high priority.

6.2.5 Global Sea Level Observing System (GLOSS)

161 Mr Guillermo Garcia Montero, IOCARIBE-GOOS Co-Chairman, introduced this item. He reiterated information provided during IOCARIBE-IX regarding the tide stations in the IOCARIBE Region for inclusion in GLOSS. Of the 21 stations, seven are operating and reporting in real time. GLOSS data is essential for the Tsunamis and other Coastal Hazards Warning System. He urged IOCARIBE Member States to increase support to their national stations, including the necessary regular maintenance of stations.

162 During the debate, some Member States mentioned the particular conditions of their stations, including some already in operation and reporting to the global database and others that are in operation.

163 **The Sub-Commission agreed** on the need to update the inventory of the regional network.

6. CAPACITY BUILDING IN MARINE SCIENCES, SERVICES AND OBSERVATIONS: DEVELOPMENT OF A MAJOR ASSISTANCE PROGRAMME

6.1 CAPACITY BUILDING PROGRAMMED ACTIVITIES

164 The IOC (UNESCO) Secretary for IOCARIBE introduced this item on behalf of Mr Ehrlich Desa, Head of IOC Capacity-Building Section.

165 Several training courses were scheduled in the Caribbean region during the intersessional period in response to Recommendation SC-IOCARIBE-VI.10 which stressed the need for an evaluation and upgrading of the scientific research and training component in the regional projects and IOC Resolutions XXIII-10 and XXIII-11.

- 166 The Secretary provided also a chronogram of activities and their links to the strengthening of the Member States capacity in marine sciences. He also reminded the Sub-Commission of the upcoming bid-writing workshop for Heads of Marine Sciences Institutes in the IOCARIBE Region (Cartagena, Colombia, 18–21 November 2008) focussed on obtaining funding for a regional coastal erosion project.
- 167 Though the Secretary noted low uptake on IOC Capacity-building initiatives in the Region and low self-financing of travel to attend workshops, the Secretary invited Member States to send experts for a 6 months/1 year period to the IOCARIBE Secretariat in Cartagena to help develop capacity-building programmes and projects within IOCARIBE.
- 168 Barbados mentioned that they are very interested in Capacity-Building Workshops, and are exploring the possibilities of hosting such a workshop. Low attendance from Barbados at previous workshops was due in part to the most appropriate person not being contacted..
- 169 Venezuela stressed the need to increase education at the municipality level and to provide not just scholarships for students but to complement them with support to academic institutions. Venezuela plans on submitting a proposal to present to Member States for the implementation of a floating university. Venezuela urged Member States to commit to the project by providing expertise. Venezuela also made reference to a national programme focussed on providing incentives for the repatriation of Venezuelan oceanography professionals who have moved abroad.
- 170 Mexico suggested that Member States need to ensure that students receive IOC scholarships only if the proposed research addresses established national priorities in order to allocate resources effectively. Mexico also stressed that the capacity-building workshops need to target institute Directors with decision-making capabilities. Mexico commented that education is crucial and informed the Sub-Commission that a national programme is in implementation providing education in marine science to primary schools.
- 171 The Representative of CARICOM-RPF commented that he had attended the Leadership Workshop for Heads of Marine Sciences Institutes of the IOCARIBE Region (Kingston, Jamaica, 12–15 September 2006) and that CARICOM-RPF will be replicating a workshop involving 18 countries in the coming year. He reminded the Sub-Commission that it takes time to see results from capacity-building initiatives.
- 172 The Secretary recognized the point made by the CARICOM-RPF and requested Member States and institutions to keep IOCARIBE informed with regards to planning local and regional capacity development workshops.
- 173 The Secretary stressed the need to harness the potential in the region in order to make up for the differences in national capacities. He emphasized the dual importance of regional scholarships from the IOC to students and the need to increase capacities nationally. Mention was made of a proposal to develop an inter-institutional scheme for development of national capacities using external seed funding that leads to local ownership citing the example of Colombia obtaining start-up funding from Germany to establish a marine science research centre.
- 174 **The Sub-Commission expressed** support to all IOC Capacity-building activities in the region, in particular the continuation of the capacity-building workshops, the awarding of regional scholarships, the planning for a Venezuela's research cruise for celebrating IOC's 50th Anniversary research cruise and the proposal for using an inter-institutional scheme to foster national capacities.

7. INSTITUTIONAL AND LEGAL FRAMEWORK

7.1 STATUS OF COOPERATION WITH OTHER ORGANIZATIONS

- 175 The IOC (UNESCO) Secretary for IOCARIBE gave an overview of the efforts made to other regional organizations and programmes. The Sub-Commission in close coordination with IOC continues to actively enhance and strengthen links with other United Nations Programmes and Organizations.
- 176 The Secretary stressed the importance of cooperation for: (i) optimizing resources; and (ii) regional integration that allows for greater political visibility to IOC. He also stressed the need to cooperate with leading non-governmental organizations in the region.
- 177 The IOCARIBE Chairman mentioned "The Know-Why Network" established through cooperation between UNEP/CAR/RCU and IOCARIBE with support from the Swedish International Development Agency (SIDA) and Regional Activity Centres: CIMAB (Cuba), IMA (Trinidad and Tobago), INVEMAR (Colombia) and Universidad del Oriente (Venezuela). The overall objective of the network is to enhance the capacity of the countries of the Wider Caribbean Region to implement the Protocol concerning Land-based Sources of Pollution (LBS Protocol) and to improve the knowledge about the status and quality of the marine environment and its resources.
- 178 The IOC Chairman mentioned that current "Delivery as One" policy of the UN encourages countries to use one UN National Focal Point for all UN matters instead of a focal point for each UN Agency. He recommended that the Sub-Commission keep this in mind as this development could be very sensitive to the role of the IOCARIBE Secretariat when presenting documentation to UNESCO.
- 179 The Secretary added that Uruguay has been chosen to serve as a pilot country for this policy. He mentioned efforts for further integration with other programmes in UNESCO. The Secretary also mentioned the importance of the WMO, UNEP/RCU, UWI, CERMES, CRFM, CDERA, CEPREDENAC, CPPS, and FAO/WECAF for overall regional cooperation and integration. He added that there have also been conversations between IOCARIBE and UNEP to collaborate on coastal erosion and marine debris initiatives.
- 180 Mr Mario Palacios, CPPS Director for Scientific Affairs, informed the session on a summary of CPPS activities and presented some proposals to the Sub-Commission. In particular, CPPS is the Technical Secretariat of the GOOS Regional Alliance for South-East Pacific (GRASP). They are finishing the draft GRASP Strategic Action Plan. A Memorandum of Understanding between IOCARIBE-GOOS and GRASP was signed during the IOCARIBE-X Session. Mr Palacios also invited Member States to the Ministerial Meeting on Climate Change and its Impact on Marine and Coastal Ecosystems coming up on 28 November 2008 in Guayaquil, Ecuador.
- 181 Venezuela thanked the CPPS for the opportunity of Venezuelan scientists to attend the oceanographic cruises organized by the CPPS.
- 182 The Director of CARICOM-RFM informed the Sub-Commission on the activities of the CRFM and the process of developing a Memorandum of Cooperation with IOCARIBE. Barbados informed the Sub-Commission, on behalf of Dr Lorna Inniss, IOCARIBE Vice-Chairperson, that the Memorandum of Cooperation with CARICOM and the MoU with the marine Environment Protection Committee (MEPC) are expected to be finalized within the next six months. The memorandum of Understanding with the Marine Environmental Protection Committee is with their legal division awaiting confirmation.

183 **The Sub-Commission took note** of: (i) the information received; (ii) the need for further integration; and (iii) the rapid signing of Memorandums of Cooperation to increase existing cooperation regionally. **The Sub-Commission welcomed** the signature of the Memorandum of Understanding between CRFM and IOCARIBE.

8. **ADMINISTRATION AND MANAGEMENT**

8.1 DRAFT PROGRAMME AND BUDGET 2009–2011

184 The Chairman introduced this Item. He presented to the Session Document SC-IOCARIBE-X/2 Annex 2, “Progress Report on Budget Execution”.

185 Captain Julian Augusto Reyna, Chairman of the sessional Drafting Group on the Draft Programme and Budget for 2009–2011, then reported on the present budgetary situation of the Sub-Commission and the planned budget for IOCARIBE programmes for the period of 2009–2011. It was noted that the budget for IOCARIBE activities is expected to increase for 2010–2011.

186 The IOC (UNESCO) Secretary for IOCARIBE presented the new administrative scheme of the Sub-Commission and the current staffing situation, noting that additional funding was also being provided by Colombia for the IOCARIBE Office in Cartagena. He requested that Member States ensure the inclusion of the Sub-Commission support into their national budgets. This could be done through direct funding contributions or through contributions in-kind such as staff support. Recognizing the Canadian International Development Agency’s contribution of three internships at the office of IOCARIBE, The Secretary encouraged Member States to seek similar opportunities through their respective national institutions.

187 The Sub-Commission was then invited to consider and analyze available administrative capacities of the Sub-Commission, to review the proposals presented to the Session, and to introduce new mechanisms to explore additional funding for scientific programmes.

188 The United States noted that Member States financial support is often targeted on science and project implementation. Thus given the apparent limitations in IOCARIBE’s administrative budget, perhaps the Sub-Commission should encourage greater visibility for this issue to mobilize the necessary political will to secure the administrative support for this valuable position.

189 Colombia agreed, expressing their continued willingness to support the Secretariat in Cartagena, though stating that it would appreciate the contribution from IOC to reflect that of the increased support coming from the region.

190 Cuba was concerned and called for suggestions on approaching the IOC to put forth the proper recognition to the region.

191 The IOC Chairman reminded the Session that IOCARIBE is a body within a larger organization which has a fixed and limited budget, and though the region exhibits excellent progress through the Sub-Commission, it would be complicated to increase the budget for this particular region as other regions could then increase their levels of activity expecting the same. Recognizing the importance of oceanography, science, observation and warning systems, he encouraged Member States to promote these programmes to their respective national institutions as a means to strengthen the support for IOCARIBE.

192 Cuba and the Dominican Republic insisted that the region’s exceptional contributions towards the Commission’s progress should rightly be responded with greater contributions, contending that every administration has the option to change. The Chairman presented an

alternative solution for maintaining the administrative budget, noting the possibility for Member States to voice the need for administrative support directly to their Permanent Delegations to UNESCO.

193 Keeping in mind discussion under item 3.3 (Programmed Activities 2009–2011), **the Sub-Commission approved** the draft budget for 2009–2011 and **adopted** Recommendation SC/IOCARIBE-X.4.

8.2 IOCARIBE MANUAL

194 The Chairman introduced this Item. He presented to the Session the draft “IOCARIBE Manual” (Doc. IOC/SC-IOCARIBE-X/Inf. 3).

195 The IOCARIBE Manual establishes basic guidelines for the function of the Secretariat. It is a compilation of valid regulations and of permanent decisions adopted by the IOC Governing Bodies.

196 He reported to the Session that as a follow-up of Recommendation SC-IOCARIBE-IX.12 the IOCARIBE Manual was redrafted, taking account of the new administrative scheme and staffing situation. The draft was distributed to the IOCARIBE Board of Officers for initial approval.

197 The United States kindly proposed to the Secretariat to help with the final draft of the IOCARIBE manual.

198 **The Sub-Commission agreed** to review the Draft IOCARIBE Manual and submit comments to the IOCARIBE Secretariat by 30 November 2008.

8.3 ELECTIONS OF THE BOARD OF OFFICERS OF THE SUB-COMMISSION

199 Mr Francisco Brizuela (Mexico), Chairman of the Nominations Committee introduced this item. The Committee worked in conformity with the technical arrangements for the elections of the Officers of the Sub-Commission as laid down in Appendix I of the Rules of Procedure. The list of nominations received was distributed.

200 The members of the IOCARIBE Board of Officers will promote effective working relationships with active intergovernmental organizations interested in marine science affairs and will guide and co-ordinate work of the Sub-Commission.

8.3.1 Election of the Chairperson of the Sub-Commission

201 **The Sub-Commission noted** that there was only one candidate for the position of Chairperson. Mr Guillermo Garcia Montero (Cuba) was **elected** by acclamation for his second mandate.

8.3.2 Election of the Vice-Chairpersons of the Sub-Commission

202 **The Sub-Commission noted** that there was only one candidate for each of the three positions of Vice-chairperson. Noting that the candidates provide an equitable sub-regional representation, the following were **elected** by acclamation:

Mr Clement D. Lewsey (United States of America) (Second mandate)

Mr Anthony McKenzie (Jamaica)

Dr Gustavo Malavé Buccé (Bolivarian Republic of Venezuela)

203 The IOC Chairman and the Secretary congratulated the newly elected officials.

8.4 DATES AND PLACE OF THE ELEVENTH SESSION OF THE SUB-COMMISSION

204 The Dominican Republic kindly offered to host the eleventh Session of the Sub-Commission conditional on further approval by the Government of the Dominican Republic. The Session will take place during the last quarter of 2010 (October–November).

205 **The Sub-Commission acknowledged** this offer with appreciation and **accepted** the invitation of the Dominican Republic.

8.5 THEME OF THE NEXT SCIENTIFIC SYMPOSIUM

206 The Chairperson of the Sub-Commission introduced this agenda item.

207 The Sub-Commission was invited to propose themes for the next Scientific Symposium to be held prior the Eleventh Session of the Sub-Commission during the last quarter of 2010.

208 The Chairman suggested as a next target to give strength to the programme IOCARIBE-GOOS by building an observatory system in the IOCARIBE region. This would support efforts undertaken so far by the Tsunami and Coastal Hazard Warning System group.

209 The United States supported the proposition by the Chairman but included the importance of strengthening coastal zone management and aspects of pollution as these have a profound impact on economic aspects such as tourism and the quality and maintenance of fish stocks. They further proposed considering the theme of science and its role in public policy and natural resource management. Supporting science for public outreach as well as encouraging the work of the next generation of ocean science should play vital roles in the Sub-Commissions future efforts.

9. ADOPTION OF THE DRAFT SUMMARY REPORT AND RECOMMENDATIONS

210 The Sub-Commission adopted the summary report and four (4) recommendations from the Tenth Session, as reviewed during this agenda item.

211 Complete text of approved recommendations is included in Annex II.

10. CLOSURE

212 The IOCARIBE Chairman, on behalf of the Sub-commission and of the delegations, thanked the Government of the Bolivarian Republic of Venezuela and the Ministry of Science and Technology for hosting the meeting. Mr. Guillermo Garcia-Montero gave his warmest appreciation to the Local Organizing Committee headed by Mr Gustavo Malavé Buccé for the excellent facilities provided for the organization of the Session as well as for the preceding Tsunami Seminar held in Puerto La Cruz. The Chairman extended his remarks to the attending delegations and the Sub-Commission staff.

213 The Tenth Intergovernmental Session of the IOC (UNESCO) Sub-Commission for the Caribbean and Adjacent Regions IOCARIBE X was closed at 15:00 hrs on Saturday 26 October 2008.

ANNEX I

AGENDA

1. **OPENING**
2. **ADMINISTRATIVE ARRANGEMENTS**
 - 2.1 ADOPTION OF THE AGENDA
 - 2.2 DESIGNATION OF THE RAPPORTEURS
 - 2.3 CONDUCT OF THE SESSION, TIMETABLE AND DOCUMENTATION
3. **REPORT OF THE IOCARIBE SECRETARY ON INTERSESSIONAL ACTIVITIES**
 - 3.1 STATEMENT OF THE CHAIRMAN
 - 3.2 REPORT BY THE SECRETARY ON PROGRAMME AND BUDGET
[Rule of Procedure No. 8.1 (b,c); Rule of Procedure 49.3; Rec. SCIOCARIBE-IX.13]
 - 3.3 PROGRAMMED ACTIVITIES FOR 2009–2011
[Rule of Procedure No. 8.1 (b,c); Rule of Procedure 49.3]
4. **POLICY ISSUES**
 - 4.1 IOCARIBE STRATEGIC SCIENCE PLAN AND RELATED SERVICES FOR 2006–2016 [Rec. XXI-14; Rec. SC-IOCARIBE-VIII.1, Rec. SC-IOCARIBE-IX.1]
 - 4.2 SUBCOMMISSION'S PARTICIPATION ON THE 50TH ANNIVERSARY OF THE INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION OF UNESCO 1960–2010 [Resolution XXIV-4]
 - 4.3 IOC BIENNIAL STRATEGY 2008–2009
[Resolution XXIV-2; Resolution EC-XLI.5]
 - 4.4 IOCARIBE VISION 2020
5. **REGIONAL PROJECTS**
 - 5.1 OCEAN SCIENCES SECTION
 - 5.1.1 **Caribbean Large Marine Ecosystem (CLME)**
[Rec. SC-IOCARIBE-VI.5; Rec. SC-IOCARIBE-VIII.2; Rec SC-IOCARIBE-IX.2; Rec. SC-IOCARIBE-IX.3]
 - 5.1.2 **Oceanographic Data and Information Exchange (IODE)/Ocean Data and Information Network for the Caribbean and South America (ODINCARSA)**
[Res. EC-XXXV.6; Rep. SC-IOCARIBE-VII, Item 6.3.1.2 para. 143,144]
 - 5.1.3 **International Bathymetric Chart for the Caribbean and the Gulf of Mexico (IBCCA)**
[Rep. SC-IOCARIBE-VII Item 6.3.2.1, para. 154, 156, 158; Rec. SC-IOCARIBE-VI.9]
 - 5.1.4 **Global Ocean Observing System (GOOS): IOCARIBE-GOOS**
 - 5.1.5 **Global Sea Level Observing System (GLOSS)**
 - 5.2 OCEAN OBSERVATION AND SERVICES

5.2.1 Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions. IOC Intergovernmental Coordination Group
[Res. EC-XXXV.5; Rec. SC-IOCARIBE-VII.2 Rec. SC-IOCARIBEVIII.8; Res. IOC-XXIII.13; Rec. SC-IOCARIBE-IX.6]

5.2.1.1 IOCARIBE Tsunami Ad-Hoc Group of Experts

5.2.2 Oceanographic Data and Information Exchange (IODE)/Ocean Data and Information Network for the Caribbean and South America (ODINCARSA)
[Res. EC-XXXV.6; Rep. SC-IOCARIBE-VII, Item 6.3.1.2, para. 143,144; Rec. SC-IOCARIBE-IX.7]

5.2.3 International Bathymetric Chart for the Caribbean and the Gulf of Mexico (IBCCA)
[Rep. SC-IOCARIBE-VII Item 6.3.2.1, para. 154,156,158; Rec. SC-IOCARIBE-VI.9; Rec. SC-IOCARIBE-IX.8]

5.2.4 Global Ocean Observing System (GOOS): IOCARIBE-GOOS
[Res. EC-XXXV.5; Rec. SC-IOCARIBE-IX.9]

5.2.5 Global Sea Level Observing System GLOSS
[Rec. SC-IOCARIBE-V.5, Part C; Rec. SC-IOCARIBE-VI.6]

6. CAPACITY BUILDING IN MARINE SCIENCES, SERVICES AND OBSERVATIONS: DEVELOPMENT OF A MAJOR ASSISTANCE PROGRAMME

6.1 CAPACITY BUILDING PROGRAMMED ACTIVITIES

7. INSTITUTIONAL AND LEGAL FRAMEWORK

7.1 STATUS OF COOPERATION WITH OTHER ORGANIZATIONS

8. ADMINISTRATION AND MANAGEMENT

8.1 DRAFT PROGRAMME AND BUDGET 2009–2011

8.2 IOCARIBE MANUAL
[Rec. SC-IOCARIBE-IX.12]

8.3 ELECTIONS OF THE BOARD OF OFFICERS OF THE SUB-COMMISSION
[Rules of Procedure No. 25(3) and Appendix]

8.3.1 Election of the Chairperson of the Sub-Commission

8.3.1 Election of Vice-Chairpersons of the Sub-Commission

9. DATES AND PLACE OF THE ELEVENTH SESSION OF THE SUB-COMMISSION

10. THEME OF THE NEXT SCIENTIFIC SYMPOSIUM

11. ADOPTION OF THE DRAFT SUMMARY REPORT AND RECOMMENDATIONS

12. CLOSURE

ANNEX II

RECOMMENDATIONS

Recommendation SC-IOCARIBE-X.1

ADMINISTRATIVE ARRANGEMENTS FOR THE IOCARIBE SECRETARIAT

The IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE),

Noting with concern the reduction in the budget allocation from IOC (UNESCO) to IOCARIBE that has considerably affected the development of their activities,

Acknowledging the social and economic importance of the coastal and marine resources to the countries of the region,

Recognizing that the Sub-Commission has contributed significantly to the development of marine science in countries of the region,

Recognizing also the IOC Executive Secretary's efforts to provide administrative and operational support to the IOCARIBE Secretariat,

Considering that Member State contributions have been instrumental for the success of IOCARIBE programmes and that the intergovernmental coordination of their efforts requires a permanent post with appropriate administrative support,

Considering also that the recent UNESCO decision to relocate and redefine the responsibilities of the IOCARIBE Secretary will diminish the effectiveness of the IOCARIBE Secretary in achieving the IOCARIBE mission,

Welcoming the commitment of the Government of Colombia to host the Office of the IOCARIBE Secretariat,

Calls on the IOC and UNESCO to re-establish a full-time, permanent post for the IOCARIBE Secretary funded by the UNESCO staff allocation;

Instructs the IOCARIBE Chairman to transmit this Recommendation to the UNESCO Permanent Delegation of each IOCARIBE Member State, the IOC Executive Secretary and to the IOC Board of Officers as soon as possible, to secure the necessary support for IOCARIBE's effective functioning through the appropriate UNESCO bodies;

Urges Member States to further support the IOCARIBE Secretariat.

Recommendation SC-IOCARIBE-X.2

**PARTICIPATION OF THE IOCARIBE SUBCOMMISSION
IN THE FIFTIETH ANNIVERSARY OF THE IOC**

The IOC Sub-commission for the Caribbean and Adjacent Regions (IOCARIBE),

Bearing in mind the significance of the 50th anniversary of the Intergovernmental Oceanographic Commission of UNESCO as an opportunity to increase awareness of the importance of the seas and oceans and of the advances in marine sciences, in the region,

Reaffirming the role played by the IOC Regional Sub-commission for the Caribbean and Adjacent regions in facilitating international cooperation and coordinating programmes in research, services and capacity-building at a regional level for the benefit of its Member States,

Acknowledging the IOC plan of action for the commemoration of the 50th anniversary of the IOC annexed to Resolution EC-XLI.2,

Encouraging Member States to take IOC plan of Action into account as they develop their national initiatives for the commemoration of the 50th anniversary of the IOC as a framework,

Urges the Sub-Commission's Member States, regional non-governmental organizations, local communities, educational institutions, National Oceanographic Committees, National Commissions of UNESCO and other appropriate bodies, to contribute to the commemoration of the 50th anniversary of the IOC by undertaking initiatives to further promote marine sciences and the Sub-Commission;

Calls on Member States to promote the commemoration through planned activities at regional and national levels and inform all national IOCARIBE Focal Points of these activities;

Requests the IOC Secretary to seek ways and means to support regional activities in particular by contributing to:

- the "Regional Research Cruise" on board the R/V *Guaiqueri II* proposed by Venezuela with the participation of other Caribbean Member States, in coordination with CPPS regional cruise during September and/or October 2009
- the XIIIth Latin-American Congress on Marine Sciences to be held in Havana, Cuba from 26 to 30 October 2009
- the establishment of a "50th IOC Anniversary" fellowship programme, with the support of national universities, research centres, etc. as appropriate;

Requests also the IOCARIBE Secretary to:

- (i) take the appropriate steps to implement these activities in the region and cooperate with other regional organizations
- (ii) ensure that all 50th Anniversary activities and national plans be featured on their web pages,

Invites Member States and other donors to consider making contributions to Commemoration activities.

Recommendation SC-IOCARIBE-X.3

NUTRIENT AND SEDIMENT REDUCTION IN THE WIDER CARIBBEAN REGION

The IOC Sub-commission for the Caribbean and Adjacent Regions (IOCARIBE),

Noting that the World Resource Institute's report on *Reefs at Risk in the Caribbean* concluded that 20 percent of coral reefs are at high threat and about 15 percent at medium threat from damage caused by increased sediment and pollution, including the high islands of the Eastern Caribbean,

Concerned that land-based sources of the marine pollution, in particular nutrient enrichment and sediment caused by human activities such as deforestation, urbanization, inadequate agricultural practices, is having serious direct and indirect effects on fishery resources, local coastal economies, and human health,

Recognizing that small islands environments and populations are especially vulnerable to the effects of poor land use management, and are under increasing development pressure for scarce available land resources which will exacerbate the transport of sediment and nutrients to the marine environment,

Recognizing also that IOCARIBE's collaboration with UNEP, IWCAM, the White Water to Blue Water Initiative, and other programmes addressing land-based sources of marine pollution enables a strategic and coordinated focus on nutrient and sediment transport, impacts, and management practices,

Recommends continued cooperation with UNEP, IWCAM, the White Water to Blue Water Initiative, and other programmes addressing land-based sources of marine pollution;

Decides to approve as proposal the project "Demonstrate Approaches for Nutrient and Sediment Reduction at Selected Pilot Study Areas in the Wider Caribbean Region" presented in document IOC/SC-IOCARIBE-X/Inf.4 to develop a decision support modelling system applicable for the targeted watersheds and demonstrate the effectiveness of best management practices to reduce loading of sediment into the near-shore marine environment;

Calls on Member States to collaborate with IOCARIBE in the development of pilot sites in small islands, consistent with the project's implementation plan; and

Encourages Member States to collaborate in mobilizing human and financial resources to implement the project.

Recommendation SC-IOCARIBE-X.4

PROGRAMME AND BUDGET FOR 2009–2011

The IOC Sub-commission for the Caribbean and Adjacent Regions (IOCARIBE),

Having considered the report of the IOC Secretary for IOCARIBE on Programme and Budget 2009–2011,

Recognizing with satisfaction the effective work done by the IOCARIBE Secretariat in developing regional programmes and activities under present financial restrictions,

Recognizing also with appreciation the continuous support of the Government of Colombia to the IOCARIBE Regional Office in Cartagena, since its creation in 1986,

Approves the Draft Biennial 2009–2011 IOCARIBE Programme and Budget, as annexed to this Recommendation;

Instructs the IOC Secretary for IOCARIBE to submit to the IOC Executive Secretary the approved biennial 2009–2011 IOCARIBE Programme and Budget, and to distribute it to all IOCARIBE Member States after approval by the Assembly at its 25th Session in June 2009.

Annex to Recommendation SC-IOCARIBE-X.4

**Draft Budget for IOCARIBE Activities Execution 2009–2011
as Recommended by IOCARIBE X (in US dollars)**

Programme / Activity	2009		2010		2011	
	RP	EXB	RP	EXB	RP	EXB
GOOS/GLOSS	25,000 ¹	300,000	25,000	450,000	25,000	450,000
ICAM	20,000 ²	30,000	20,000	100,000	20,000	200,000
CAPACITY DEVELOPMENT	25,000 ³	20,000	25,000	300,000	25,000	300,000
ANCA	10,000 ⁴	10,000	10,000	20,000	10,000	20,000
CLME		1,770,000		2,478,000		1,416,000
ODINCARSA	8,500 ⁵	37,000	40,000			40,000
CMA (IODE)	5,000 ⁵	80,000	10,000	70,000	10,000	70,000
IBCCA	12,000 ⁵	10,000	12,000	10,000	12,000	40,000
TSUNAMI & COASTAL HAZARDS	65,000 ⁵	1,030,000	250,000	1,200,000	250,000	1,100,000
CONFERENCE			12,000	20,000		
IOCARIBE XI			25,000	100,000		
TOTAL 1	170,500	3,287,000	429,000	4,748,000	342,000	3,636,000
IOCARIBE SECRETARIAT						
Human resources IOC	175,000		180,000		180,000	
Human resources EXB		15000		15,000		15,000
Missions	5,000	5,000	5,000	5,000	5,000	5000
Board Meetings	3,000	2000	3,000	2,000	3,000	2000
Running costs	20,000	20000	20,000	20,000	20,000	20000
TOTAL 2	203,000	42,000	208,000	42,000	208,000	42,000
TOTAL	373,500	3,329,000	637,000	4,790,000	550,000	3,678,000

¹ To convene the Steering Committee meeting and implement decisions and out comes.

² To support further developments of the project “Nutrients and sediment reduction at selected pilot sites study areas in the Wider Caribbean” and research overview of coastal erosion in the region.

³ To review options in developing a regional scholarship programme.
To support CD activities identified in the November 2008 Workshop.

⁴ To support a Workshop to enhance regional cooperation on HABs.

⁵ ODINCARSA / CMA/and others- It is anticipated that these high priorities will be supported by IOC Global Programmes.

ANNEX III

STATEMENTS AND ADDRESSES

**Palabras de Apertura a la Décima Reunión Intergubernamental de la Subcomisión de la COI (UNESCO) para el Caribe y Regiones Adyacentes IOCARIBE.
Puerto La Cruz, Venezuela, 22-25 Octubre, 2008.**

**Por el Señor Capitán de Navío Julián Augusto Reyna Moreno
Vicepresidente de la Región Electoral III de la Comisión Oceanográfica
Intergubernamental-COI**

Señor Presidente de IOCARIBE, Dr Guillermo García Montero, señora Representante del Ministerio del Poder Popular para la Ciencia y la Tecnología del Gobierno de la República Bolivariana de Venezuela, Dra. Alba Castillo, distinguidos miembros de la mesa directiva, distinguidos representantes de los Estados miembros, señores delegados de las organizaciones regionales, señor Secretario Ejecutivo de IOCARIBE, Dr. Cesar Toro, damas y caballeros.

IOCARIBE como la Subcomisión de COI para el Caribe y Regiones Adyacentes se encuentra hoy realizando su Décima Reunión Intergubernamental en este bellissimo paraje del CARIBE. Es importante destacar el dinamismo y la visibilidad de IOCARIBE en la Región, que se debe al arduo trabajo que la Subcomisión ha desempeñado por las cuestiones marinas y el aprovechamiento sostenible de los mares.

Un ejemplo de esto, es el trabajo realizado por el Grupo Intergubernamental de la COI del Sistema de Alerta Temprana de Tsunamis y otras Amenazas Costeras para el Caribe y las Regiones Adyacentes, con la realización de reuniones, simposios y talleres regionales que ayudan y preparan a las instituciones regionales para actuar en caso de emergencias y ayudando a la conformación de redes que operan en casos de desastres naturales.

Otro punto por destacar es el esfuerzo que viene realizando la Subcomisión a través de proyectos relacionados con el manejo integrado de las zonas costeras, con el fin de crear redes que contribuyan con el intercambio de experiencias entre los Estados de la región y el flujo de conocimiento sobre el estado de los recursos costeros para mejorar las capacidades existentes en Latinoamérica y el Caribe y, de este modo, garantizar la seguridad y bienestar de nuestras poblaciones costeras.

Igualmente, resulta importante el proyecto del Gran Ecosistema Marino del Caribe (CLME) que fortalece la cooperación regional con miras a revertir la degradación de los recursos marinos vivos compartidos para alcanzar colectivamente el desarrollo ambiental sustentable, y el trabajo que viene adelantando la Red de Información y Datos Oceanográficos para el Caribe y Regiones adyacentes ODINCARSA establecido en el 2001.

Este es uno de los programas más importantes para la Región que ha permitido el mejoramiento de las capacidades de los Centros Nacionales de Datos Oceanográficos, Bibliotecas Marinas y Centros de Información. Al mismo tiempo, ha impulsado la consolidación de las Alianzas Regionales de GOOS, como IOCARIBE GOOS, anunciando su memorando de entendimiento con la Alianza Regional del Pacífico Sudeste GRASp.

Todo esto sin olvidar el importante papel que desempeña IOCARIBE-GOOS en la generación de información sobre el estado del medio marino y costero, los ecosistemas, la diversidad biológica del mar y sobre la meteorología y variabilidad del clima respaldando el desarrollo social y económico sostenible para la Región. Así mismo, se reconoce el impulso que se le ha

dado al aumento de las capacidades en ciencias marinas, servicios de observación del océano para los Estados de la Región a través de los esfuerzos por obtener cooperación internacional y de la búsqueda de relaciones con otros organismos y Programas de las Naciones Unidas.

Entre los mecanismos utilizados para crear o reforzar las capacidades en los Estados encontramos los talleres liderados en la Región con el apoyo de los institutos regionales. Talleres como los de Kingston en Jamaica y la Habana en Cuba, en el 2006, Cananea en Brasil en el 2007 y el que se realizará en noviembre del 2008 en Cartagena, Colombia, son una muestra del trabajo realizado y del esfuerzo en formación del recurso humano en cuestiones científicas marinas de la Región.

Sin embargo el desafío aun es grande y el trabajo cada vez es mayor. Pese a las limitaciones financieras que nos afectan, es necesario garantizar la sostenibilidad a largo plazo de la Subcomisión. Los programas requieren continuidad, los recursos son cada vez más escasos y las necesidades mayores, para esto el respaldo de los Estados miembros se hace indispensable.

La capacidad colectiva de la Región se debe fortalecer, el dinamismo y la visibilidad de IOCARIBE deben ser cada vez mayor. Hay que mantener los programas vivos y al servicio de la región y esto es un reto para todos y cada uno de los Estados.

Los tiempos actuales son difíciles. La comunidad mundial se enfrenta a crecientes desafíos derivados de la variabilidad y el cambio climático, la degradación del medio ambiente marino y la contaminación, pérdidas de diversidad biológica, y los peligros naturales. El mandato actual de la COI define claramente su vocación en la prestación de los conocimientos científicos, observaciones y servicios que son necesarios para proporcionar una eficaz gestión de los océanos a nivel mundial y por esto es que debemos trabajar. Es por esto que se hace necesario pensar en el futuro de la COI y apoyar el trabajo iniciado por ella respecto a éste, reconociendo los desafíos a los que se enfrenta, teniendo en cuenta el grave desajuste entre las demandas de la COI y su capacidad para planificar y ejecutar, y así proponer soluciones para el fortalecimiento de la misma.

La X reunión de la Subcomisión IOCARIBE debe ser el tiempo y el espacio adecuado para profundizar y reflexionar acerca de esto, generar ideas innovadoras sobre el futuro de IOCARIBE que permitan garantizar a largo plazo los compromisos de los Estados Miembros.

Por esto, deseamos que esta reunión sea exitosa y concluya con la definición para enmarcar el trabajo de la Subcomisión dentro de los objetivos de la Comisión Oceanográfica Intergubernamental y de la UNESCO, lo que sin duda debe ir acompañado por expresiones de apoyo a la labor de la Secretaría Ejecutiva de IOCARIBE con el trabajo de especialistas, pero también de soporte financiero para obtener los mejores resultados. Igualmente espero que se propongan las mejores recomendaciones en todos los temas de la agenda propuesta, para beneficio de los todos los Estados y para el fortalecimiento de las relaciones y los vínculos entre los mismos y todos aquellos organismos que se ocupan de temas de océanos y costas en la Región.

Finalmente, deseo de manera muy sincera agradecer el apoyo del honorable Gobierno de la República Bolivariana de Venezuela, por hospedar esta reunión y abrirnos las puertas de tan magnifico país.

Muchas gracias.

**Discurso del Presidente de la Subcomisión de la COI para el Caribe y Regiones
Adyacentes (IOCARIBE) con motivo de su X Reunión.
22 de octubre de 2008**

Distinguidos delegados:

Estimados amigos de años lejanos y otros, de años más recientes:

Es para mí un honor cumplir con uno de los deberes del Presidente en ejercicios: hacer el discurso inicial de los trabajos de la sesión Ordinaria de la Subcomisión. Debo aclarar que esta intervención no pretende ser guía, ni verdad única. Mi intención es mover el pensamiento y provocar el debate franco y abierto, la polémica sobre nuestros principales fracasos y dificultades.

Soy un convencido de que el debate franco y abierto puede más que cualquier cantidad de dinero de que podamos disponer, pues este puede ser totalmente estéril si no se complementa con una priorización efectiva y sabia de nuestras actividades y una administración eficiente.

Estimados Colegas:

En agosto de 1995, escribí un pequeño documento que se suponía sería incluido en una publicación periódica que emitía la Secretaría de la Subcomisión. Por razones que en ese momento nadie pudo explicarme, y que aun hoy desconozco el escrito nunca fue publicado. El escrito lo titulé “Los Programas de IOCARIBE: una opinión personal” y decía entre otras cosas, y cito párrafos seleccionados:

“...En numerosas ocasiones y documentos se ha reconocido la urgente necesidad de llevar adelante un serio y definitivo programa regional de investigaciones y servicios oceánicos que posibilite enfrentar los desafíos de una nueva Época en la preservación del medio ambiente, y que al mismo tiempo dé respuesta a las más apremiantes necesidades de los Estados miembros de la Subcomisión.

...Es preciso señalar que la influencia sobre el medio marino y costero de unos países puede tener un efecto potencial, indeseable o no, sobre sus correspondientes vecinos. Además, en muchos casos la investigación científica marina actual rebasa las posibilidades humanas y materiales de la mayoría, por no decir todos, los estados individualmente. Estos hechos son particularmente válidos para los estados en vías de desarrollo, y entre ellos para los Pequeños Estados Insulares y otros estados de Centro America.

... En mi opinión, el logro del objetivo común del desarrollo de la Subcomisión sólo puede alcanzarse sí: (y señalaba factores de los cuales selecciono los siguientes...) repito solo puede alcanzarse si:

- (i) otorgamos la atención requerida a las verdaderas prioridades nacionales comunes, dejando a un lado los intereses institucionales o personales,*
- (ii) asumimos responsablemente la imperiosa necesidad de definir prioridades a nivel regional acordes con los recursos disponibles,*
- (iii) encontramos vías para que las actividades institucionales y nacionales puedan convertirse en formas de contribución a la organización,*
- (iv) continuamos incrementando y mejoramos nuestras relaciones y la coordinación con los organismos y mecanismos internacionales de financiamiento u otros afines,*

... En este sentido, el Programa Regional debe compatibilizar los intereses globales y nacionales, asegurando simultáneamente no solo la participación de los estados en los programas globales, sino también haciendo más visible la influencia de la COI (es decir IOCARIBE) en la solución de las necesidades nacionales.

... En otras palabras, la solución de las necesidades más urgentes de los estados miembros de IOCARIBE en materia de ciencias y servicios costeros y oceánicos, podría contar con una influencia más evidente de la Subcomisión si esta define y desarrolla programas que puedan responder a corto, mediano y largo plazo a las reales necesidades de los estados... y subrayo, reales necesidades de los estados.

... Es muy seguro que esta forma de acción generará un mayor flujo de contribuciones de los estados miembros y de las organizaciones y mecanismos internacionales de financiamiento.

... Debe tenerse en cuenta que la “creación de capacidades” también toca de cerca a la propia Subcomisión. Federico Mayor, ex-Director General de la UNESCO, decía: “Una institución internacional sólida y eficaz conducirá inevitablemente al fortalecimiento de las instituciones nacionales...” para ello... tenemos que eliminar la rutina en la formulación de los programas y actividades científicas, de servicios, y de creación de capacidades...

... Por ello valdría la pena implementar algunas medidas y otros conceptos más a tono con las realidades del mundo de hoy. Hay que abandonar la rutina de lo que un día pasado nos permitió obtener éxitos y hoy ya puede ser caduco. Hay que evitar la excesiva regionalización de lo global, o la nacionalización automática de lo regional. Es preciso invertir el proceso en la medida que sea necesario, y posible, a fin de estimular a un mayor número de países a participar activamente en IOCARIBE.”

Hasta aquí los párrafos seleccionados del escrito que les mencioné. Han pasado 13 años y aun no salimos del asombro y la lamentación de no tener suficientes recursos para hacer todo o la mayor parte de lo que queremos o necesitamos. Y somos los estados miembros los responsables de ello.

Es mi opinión que la Secretaría Regional ha realizado una labor encomiable. Prácticamente sin nada, en ocasiones incluso con retrasos en el traspaso de fondos desde la “casa matriz”, incluyendo los salarios, nuestros entrañables amigos de la Secretaría con Cesar al frente han desarrollado un trabajo difícil de igualar. Para orgullo del equipo, y para el nuestro también, IOCARIBE es el órgano subsidiario de la COI que mejor relación costo-beneficio alcanza. Esto es muy importante, pero aun así, ni siquiera los oficiales electos de la Subcomisión pudieron sostener su reunión ordinaria inter-sesional, como está establecida en nuestros documentos rectores.

Vale reconocer que, a pesar de los avances de los últimos años y de todo lo positivo que he mencionado, nada lograremos mas allá de lo alcanzado si no reconocemos que aun están presentes los factores de años pasados, causantes del debilitamiento del nivel de actividad de la Subcomisión.

Un análisis de estos años indica que los factores aun presentes son, entre otros:

- Agravamiento de la crisis económica de la región.
- Insuficiente capacidad para captar fuentes de financiamiento externas.
- Pobre integración real con otros organismos y/o mecanismos afines de la Región.
- Insuficientes representaciones nacionales en reuniones y otras actividades intergubernamentales.
- Insuficiente capacidad del órgano u organismo de coordinación regional.

- Ausencia de un reconocimiento real y efectivo del liderazgo institucional (colectivo) y personal (individual) en todas las acciones y programas.
- Escasas o casi nulas contribuciones nacionales a los programas regionales.
- Incapacidad para establecer y aplicar, un riguroso proceso de seguimiento y evaluación sistemática de los programas.

Como se señala, el “dinero” seguirá constituyendo un factor importante para lograr una acertada visión de futuro. Pero el “dinero” no lo es todo. Otras importantes alternativas podrían contribuir a aliviar, e incluso mejorar el estado actual del trabajo global de la Subcomisión. Estas son:

- Promover la elaboración y apoyo a escalas nacionales de proyectos de ciencias y servicios marinos y costeros de alcance regional, en el marco del Fondo Global del Medio Ambiente (GEF)
- Fortalecer o crear asociaciones con otros mecanismos internacionales de financiamiento para el desarrollo (CIDA, PNUMA, ONUDI, Unión Europea, SIDA / SAREC, entre otros)
- Insistir con los estados miembros de la Subcomisión, para que designen a sus puntos focales nacionales y que estos desempeñen un papel real, actuando como catalizadores del empeño común regional a escala nacional.
- Lograr una verdadera representación nacional por parte de los puntos focales, en reuniones y otras actividades.
- Elaborar un proyecto de prioridades conciliadas a escala regional.
- Establecer un sistema o mecanismo de evaluación independiente y sistemática para todos los programas en curso.
- Identificar las alternativas y acciones que los estados miembros deberíamos desarrollar en el seno de la UNESCO y de la COI para el fortalecimiento indispensable de la oficina regional.
- Identificar líderes potenciales a escala nacional-regional.

Estimados Colegas,

Durante el periodo entre reuniones de la Subcomisión, la COI desarrolló los estudios encargados al Grupo de Trabajo sobre el Futuro de la COI. Tuve el privilegio y honor de ser elegido como uno de los diez miembros de este Grupo de Estudio y de participar en la reunión resumen sobre el “futuro”. Ello fue para mí una experiencia provechosa y al mismo tiempo reveladora de que la “rutina” que antes mencioné no nos ha abandonado.

Siento mucho decirles que las conclusiones de los estudios sobre el Futuro de la COI y de la reunión que desarrolló el Grupo, con la participación de mas de veinte estados miembros en calidad de observadores, poco o nada aportó, y una nueva búsqueda de soluciones alternativas se prorrogó hasta el año 2010.

Pero eso, lejos de sentirnos amilanados por la “montaña” de dificultades que casi nos aplasta, debemos adquirir conciencia de que nuestra “casa matriz” está en situación similar o peor, pero a diferencia de ésta, nuestros resultados son mejores en términos de costo-beneficio y constituyen una magnífica carta de presentación.

Como ya conocen, el Secretario se mueve a Jamaica a desempeñar otras funciones que debe simultanear con la actual. Una historia de casi 30 años está por ser barrida sino logramos mantener con vida nuestra Subcomisión. Deberíamos por tanto lograr que esta reunión emita una fuerte recomendación a los órganos de gobierno de la COI, e incluso a los de la propia UNESCO, a fin de que se restituya y mantenga nuestro nivel de trabajo vital. Pero ello no lo

lograremos solo con el documento que aquí se podría aprobar. Hace falta que todos nosotros influyamos de manera clara en las posiciones de nuestra delegaciones en la UNESCO.

Para concluir, permítanme decirles que se que este tipo de discursos no son usuales para un “presidente” en la COI, pero soy totalmente transparente con aquello que me inquieta. MI compromiso es con los estados miembros.

Muchas gracias.

ANNEX IV

LIST OF DOCUMENTS

WORKING DOCUMENTS

Document code	Title	Item	Language
IOC/SC-IOCARIBE-X/1 Prov. Rev.	Provisional Agenda	2.1	E, S
IOC/SC-IOCARIBE-X/1 Add. Prov.	Provisional Timetable	2.3	E/S
IOC/SC-IOCARIBE-X/2	Action Paper	2.3	E,S
IOC/SC-IOCARIBE-X/2 Annex 1	Report by the IOCARIBE-UNESCO Secretary on Programme Implementation	3. 3.2	E
IOC/SC-IOCARIBE-X/2 Annex 2	Progress Report on Budget Execution	3.1 8.1	E
IOC/SC-IOCARIBE-X/3 Prov.	Summary Report (to be prepared during the Session)	9.	E, S
IOC/SC-IOCARIBE-X/4 Prov.	Provisional List of Documents (this document)	2.3	E
IOC/SC-IOCARIBE-X/5 Prov.	Provisional List of Participants (to be prepared during the Session)	2.3	E/S
IOC/SC-IOCARIBE-IX/6 Prov.	IOCARIBE Medium Term Strategic Science Plan (2006–2015)	4.1	E, S
Resolution IOC XXIV-2	IOC Biennial Strategy 2008–2009	4.3.	E, S
Resolution IOC/EC-XLI.5	IOC Draft Biennial Strategy for 2010– 2011	4.3	E,S
IOC/EC-XLI/2 Annex 5	Report by the IOC Executive Secretary on the Status of IOC Subsidiary Bodies	4.3	E,S
IOC/SC-IOCARIBE-X/Inf.3	Draft IOCARIBE Manual	8.2	E/S
IOC/SC-IOCARIBE-IX/3	Ninth Session of the IOC Sub- Commission for the Caribbean and Adjacent Regions (Cartagena de Indias, Colombia, 19-22 April 2006)	3.2	E,S,F,R

INFORMATION DOCUMENTS

Document code	Title	Item	Language
IOC/SC-IOCARIBE-X/Inf.1	Information and Guidelines to participants	2.3	E, S
IOC/SC-IOCARIBE-X/Inf.2	List of IOCARIBE National Focal Points	--	E/S

Document code	Title	Item	Language
IOC/SC-IOCARIBE-X/Inf.4	Draft Project Proposal “Demonstrate Approaches for Nutrient and Sediment Reduction at Selected Pilot Study Areas in the Wider Caribbean”	5.1.5	E
IOC/INF-1148	IOC Statutes	2.3	E/F/R/S
IOC/INF-1166	IOC Rules of Procedure	2.3	E/F/R/S

OTHER REFERENCE DOCUMENTS

Document code	Title	Agenda Item	Language
IOC-XXIV/3	Summary Report of the 24 th Session of the IOC Assembly (Paris, France 19–28 June 2007)	--	E, S
IOC-XXIV/2 Annex 2	The Future of IOC: a proposal by the Officers to the Members States, June 2007	4.2.	E,S
IOC/Future-I/3	First Session of the IOC Working Group on the Future of IOC (Paris, France, 19–20 February 2008)	4.2	E
IOC/EC-XLI/2 Annex 3	Fiftieth Anniversary of IOC. Preliminary Plan and Schedule of Initiatives	4.2	E,S
IOC/EC-XLI/3 Prov.	41 st Session of the IOC Executive Council (Paris, France, 24 June–1 July 2008)	All	E,S
IOCARIBE/CLME PDF-B	Sustainable Management of the Shared Living Marine Resources of the Caribbean Large Marine Ecosystem (CLME) and Adjacent Regions PDF-B Proposal	5.1.1	E
IOC Workshop Report No. 189	Workshop for the Formulation of a Draft Project on Integrated Coastal Management (ICM) in Latin America and the Caribbean (Cartagena, 23–25 October 2003)	5.1.5	E
IOC Workshop Report No. 203	IOC-Flanders Planning workshop for the Formulation of an IOC/ICAM Regional Pilot Project in Latin America (Cartagena, Colombia, 16–18 January 2007)	5.1.5	E
IOC/ANCA-IOCARIBE-III/3s	IOC IV Regional Science Planning Workshop on Harmful Algal Blooms in IOCARIBE (San Andres Islas, Colombia, 22–24 May 2007) ANCA FANSA Portal Workshop (San Andres Islas, Colombia, 25–27 May 2007)	5.2.3.	E
IOC XXIII Resolution 13 Annex I and II	Terms of Reference for the IOC Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions	5.2.1	E

Document code	Title	Item	Language
IOC/ICG-CARIBE-EWS-II/3	Second Session of the IOC Intergovernmental Coordination Group for Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (Cumana, Venezuela, 12–14 March 2007)	5.2.1	E,S
IOC/ICG-CARIBE-EWS-III/3	Third Session of the IOC Intergovernmental Coordination Group for Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (Panama City, Panama, 12–14 March 2008)	5.2.1	E,S
IOC/IODE-XVII/35	IOC Strategic Plan for Oceanographic Data and Information Management	5.2.2	E
IOC/IOCARIBE/INF-5 ODINCARSA	Roadmap for the establishment of National Oceanographic Data Centres in the Caribbean Sub region of ODINCARSA	5.2.2	E
IOC/EB-IBCCA-IX/3	Ninth Session of the IBCCA Editorial Committee for the International Bathymetric Chart of the Caribbean Sea and the Gulf of Mexico (IBCCA-IX) (Cartagena de Indias, Colombia, 24–26 May, 2006)	5.2.3	S,E
IOC/INF-1170	The Strategic Plan for IOCARIBE-GOOS	5.2.4	E,S
IOC/INF-1211 TEMA Report No.1	IOC Principles and Strategy for Capacity Building	6.1	E
IOC/INF-1212 TEMA Report No.2	Implementation Plan for the IOC strategy for Capacity-Building	6.1	E
IOC Leadership_Kingston 2006/3	First IOC Leadership Workshop for Heads of Marine Sciences Institutes of the Caribbean and Adjacent Regions (Kingston, Jamaica, 12–15 September 2006)	6.1	E
IOC Leadership_Cuba 2006/3	UNESCO/IOC Capacity Development Advanced Leadership Workshop (La Habana, Cuba, 30 November–4 December 2006)	6.1	E
IOC/INF-1203	IOC Criteria and Guidelines on the Transfer of Marine Technology	6.1	E/F
UNEP (DEPI) 12 April 2006	Regional Network in Marine Science and Technology for the Caribbean: The “Know-why Network”	7.1	E
IODE Document	IODE Caribbean Marine Atlas	5.2	E

ANNEX V

MEMORANDUM OF UNDERSTANDING BETWEEN IOCARIBE-GOOS AND GRASP
(in Spanish)

MEMORANDO DE ENTENDIMIENTO

ENTRE

LA ALIANZA REGIONAL DEL SISTEMA MUNDIAL DE OBSERVACIÓN DEL OCÉANO (GOOS) PARA EL PACÍFICO SUDESTE (GRASP), con sede en la Comisión Permanente del Pacífico Sur – CPPS en la ciudad de Guayaquil (Ecuador), a través de la Presidencia de la GRASP, con representación en el Señor Mario Proaño Silva, y la Secretaría Técnica, ejercida por la Comisión Permanente del Pacífico Sur – CPPS, a través de su Secretario General el Señor Gonzalo Pereira,

Y

LA ALIANZA REGIONAL IOCARIBE GOOS con sede en Cartagena de Indias (Colombia), a través de la Presidencia de la IOCARIBEGOOS, con representación de los señores Doug Wilson, CoPresidente, y Guillermo García Montero, CoPresidente, y la Secretaría Técnica, ejercida por la IOCARIBE, a través del doctor Cesar Toro.

1. OBJETIVO

Este Memorando de Entendimiento (MdE) establece las bases del acuerdo de cooperación entre la GRASP y la IOCARIBEGOOS. Se entiende que el presente MdE establece un marco de trabajo para alcanzar proyectos de cooperación de interés mutuo y de mejora conjunta para desarrollo de las dos (2) Alianzas y de los productos que ofrecen al sector marítimo. El Presidente y el Secretario Técnico de cada una de las Alianzas tienen la responsabilidad de dar las Políticas, Pautas y Directrices para implementar el presente MdE. Asimismo, los Estados, sus Instituciones y entidades miembros de cada Alianza deben desarrollar los trabajos, proyectos y acciones necesarios para desarrollar, entregar y poner a disposición de los Usuarios, sectores, instituciones, estamentos y ciudadanía en general los productos, resultados de la labor conjunta de las alianzas y divulgarlos.

Cualquier intercambio de fondos u otros recursos tangibles, que tenga como propósito incrementar los objetivos del presente MdE, requiere la elaboración de un instrumento legal o instrumento escrito adicional, de acuerdo con las leyes aplicables para las Partes.

Las Partes acuerdan que el presente MdE reconoce la autonomía de cada Parte, al igual que su mutuo interés de trabajo e intereses comunes, sin existir sujeción o supeditación de una a la otra.

Desarrollar los temas, estudios, investigaciones y productos relacionados en los Anexos I y II.

2. ÁREAS DE INTERÉS

2.1. Trabajar en conjunto las dos (2) Alianzas para incrementar el alcance, efectividad, calidad y nivel de los productos y resultados de sus esfuerzos en temas centrales del GOOS como:

2.2. Desarrollar el intercambio de tecnologías, Know-How e información sobre estándares de diseño y producción de información oceanográfica y meteorológica, para construir eficientes productos operacionales que ayuden a la seguridad de las actividades marítimas, costeras y portuarias y su proyección hacia todo el territorio de los Estados integrantes de las Alianzas,

contribuyendo así al eficiente desarrollo de las actividades humanas en prevención de desastres, maricultura, acuicultura, pesca y todas las actividades marítimas en general, transporte marítimo y actividades portuarias, ambientales, alimentarias.

2.3. Elaboración y construcción de proyectos y actividades que promuevan el desarrollo.

2.4. Cooperación con instituciones gubernamentales e iniciativas privadas en la ejecución de programas, proyectos y actividades que lleven al logro de los Objetivos Prioritarios (Anexo II).

2.5. Desarrollo de capital humano, incluyendo capacitación técnica y superación del personal para alcanzar el desempeño óptimo en los estudios e investigaciones así como aplicación práctica (métodos y procesos gerenciales de uso y manejo) de los temas contemplados en los Objetivos Prioritarios (Anexo II) y de otros estudios, investigaciones o Manejo Integrado de Zona Costera o Sistemas de Ordenamiento Territorial Marítimo y Costero, Teledetección o Sensores Remotos de aplicación a los trabajos en el GOOS.

2.6. Divulgación de la información y productos elaborados por las Alianzas para que se logren beneficios de diversos sectores para los cuales es útil. Proyectando que esta información sea una herramienta de uso común para la ciudadanía, instituciones públicas y privadas y sectores productivos en lo económico o encargados del bienestar general de la población, permitiendo la prevención en todos los riesgos que tienen impacto sobre personas, medios de producción, mercancías o vehículos de transporte marítimo, fluvial, terrestre o aéreo (en que se puedan aplicar los productos del GOOS), y/o que ayudan a evitar daños en personas, animales, medio ambiente o economía, al hacer un buen uso de la data que producen las Alianzas. En el anexo I se relacionan Estudios de Interés.

2.7. Gestionar y asegurar los fondos estatales, intergubernamentales o de origen privado o mutual necesarios para implementar los programas y obtener la infraestructura apropiada para el cumplimiento de los Planes Estratégicos y Planes de Operación de las Alianzas en el marco del GOOS.

2.8. Temas de calidad medio-ambiental, cambio climático, operación y uso de productos operacionales meteorológicos y oceanográficos del GOOS para prevenir, evaluar, analizar o anunciar impactos por cambios en el medio marino y atmósfera marina costera, gestionando los fondos necesarios para implementar programas para su estudio y obtener la infraestructura apropiada.

2.9. Desarrollar los temas, estudios, investigaciones y productos relacionados en los Anexos I y II.

2.10. La dos (2) Alianzas que firman acuerdan que la habilidad de alcanzar sus objetivos, tanto individuales como comunes, crece y se mejora grandemente por medio del enfoque de colaboración detallado en el presente MdE.

3. ÁREAS DE COOPERACIÓN CONJUNTA

Se acuerda que, a fin de fortalecer la cooperación entre las dos (2) Alianzas e incrementar su efectividad representando los intereses del sector marítimo en general, y de los estudios oceanográficos- meteorológicos en particular, cooperarán en las siguientes áreas, reconociendo asimismo la individualidad de las entidades, expectativas de sus miembros, resultados logrados, marcos legales internacionales en que funcionan y tradiciones.

Colaboración Internacional: Coordinación de esfuerzos en relación a temas internacionales de interés común. (e.g., Todo el marco de GOOS, IODE, TEMA, PNUMA y sus programas, OMM y JCOMM y sus programas, OMI con sus programas relevantes, Rede Operativas de Cooperación Regional y Memorandos de Entendimiento relacionados, etc.).

Cooperación Técnica:

1. Establecer relaciones de trabajo conjunto y/o cooperativo entre Comités Técnicos, Grupos de Trabajo, Grupos Especializados con intereses comunes, utilizando la representación mutua correspondiente.

2.Desarrollar los temas, estudios, investigaciones y productos relacionados en los Anexos I y II.

3.Beneficiarse de trabajar en conjunto en Comités, Grupos de Trabajo y Grupos Especializados, para comenzar o continuar estudios mundiales innovadores, encuestas globales, monitoreos, intercalibración y homologación de datos que puedan asistir a los ciudadanos de los países miembros de las Alianzas o sus ciudadanos, usuarios de la información o población, para mejorar sus actividades productivas, económicas, formas y lugares en que se vive, comerciales o de prevención y atención de desastres.

Cooperación en Eventos:

1.Identificar oportunidades y buscar financiación para que las instituciones y entidades partes de las Alianzas participen en Conferencias, Seminarios, Capacitaciones, Comités Técnicos, etc., promoviendo siempre una mejor comprensión e implementación de los principios y objetivos comunes expresados en el presente MdE y en el marco conceptual y objetivos del GOOS.

2.Coordinar la programación de eventos, promoviendo y estimulando la mayor participación posible por parte de los miembros de las dos (2) Alianzas, a la vez que explorar oportunidades, fuentes de financiación, y escenarios posibles para desarrollar programas conjuntos.

3.Intercambiar y publicar conjuntamente (en páginas Web, medios de comunicación y medios académicos) los anuncios sobre los eventos individuales, eventos colectivos, productos operacionales nuevos, o productos operacionales que se mejoren creando adicionalmente enlaces en los portales de cada Alianza.

4.Proporcionar la posibilidad en cada Alianza para que la otra promueva sus programas, proyectos y productos a través de, e.g., presentaciones, folletos, espacios para afiches, videos, teleconferencias, páginas Web, informes, publicaciones, programas de televisión, de radio o en prensa a los que tenga acceso la Alianza.

Intercambio de Puntos de Vista, Información y Otros:

1.Permitir la participación de uno (1), dos (2) o mas observadores (Presidente/Secretario Técnico/ Miembros) de Cada Alianza en los eventos científicos, administrativos, educativos, de capacitación o de investigación que tenga la otra Alianza. Con este propósito, por lo menos las Presidencias y Secretarías Técnicas de cada Alianza participarán en las reuniones y eventos de la otra Alianza, aportando los trabajos, proyectos y políticas planificados o desarrollados por la respectiva Alianza, e informándose del estado de desarrollo de los proyectos y trabajos de la Alianza a cuyas reuniones asiste, procediendo a divulgarlos prontamente a los miembros de su Alianza tratando de optimizar su aplicación en el marco del GOOS.

2.Compartir resultados de investigaciones, estudios y publicaciones para fortalecer el intercambio de información.

3:Promover el intercambio de profesionales e investigadores en “Pasantías Profesionales” que les permitan adquirir conocimientos teóricos y/o prácticos que faciliten los progresos o desarrollos del GOOS.

Iniciar o continuar el desarrollo de otras áreas y programas de cooperación conjunta, de acuerdo al sentido del presente MdE.

4. NOTIFICACIONES

Los órganos de las Alianzas responsables de desarrollar y coordinar el intercambio de comunicaciones y las notificaciones para oficializar cualquier intercambio, proyecto o acción en torno al presente MdE son las Secretarías Técnicas. En consecuencia toda comunicación o notificación en relación al presente MdE debe enviarse a:

GRASP:

Gonzalo Pereira Puchy

Secretario General

Comisión Permanente del pacífico Sur – CPPS

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IOCARIBE GOOS

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5. MODIFICACIONES – TERMINACIÓN

5.1 Toda alteración, cambio, modificación, extensión o exención de los acuerdos del presente “Memorando de Entendimiento” será válida únicamente cuando hayan sido pasadas por escrito, debidamente aprobadas y firmadas por las autoridades representantes de ambas Partes y anexo al original del presente MdE.

5.2 Ambas Partes acuerdan que este MdE puede ser terminado por cualquiera de las Partes mediante notificación escrita a la Contraparte de dicha intención, como mínimo con sesenta (60) días de anterioridad a la entrada en efecto de dicha terminación.

6. SIGNATARIOS

Mario Proaño Silva
Presidente, GRASP

Fecha

Gonzalo Pereira Puchy
Secretaría Técnica, GRASP
Secretario General, CPPS

Fecha

Doug Wilson, CoPresidente IOCARIBEGOOS

Fecha

Guillermo García Montero, CoPresidente IOCARIBEGOOS

Fecha

Cesar Toro
Secretaría Técnica, IOCARIBE GOOS
Secretario, IOCARIBE

Fecha

ANEXO I

TEMAS Y ESTUDIOS DE INTERÉS

- Observación de los Recursos vivos, y determinación de variables y modelos de observación y de análisis.
- Elaboración de modelos y análisis de las variables marinas y oceánicas de apoyo operacional.
- Monitorear, entender y predecir el tiempo y el clima.
- Describir y pronosticar el estado del mar, incluyendo los recursos vivos.
- Mejorar la gestión de ecosistemas marinos y costeros y sus recursos.
- Mitigar los daños de los riesgos naturales y la contaminación.
- Proteger la vida y la propiedad en las costas y en el mar.
- Habilitar la investigación científica.
- Diseñar programas, planes y proyectos para incrementar la cooperación internacional sostenida para la observación de los océanos.
- Generación de productos y servicios oceanográficos.
- Implementación y adecuación de mecanismos para generar o mejorar la interacción entre la investigación, funcionamiento y las comunidades de usuarios.
- Generación e Implementación de canales directos y expeditos para una interacción entre la investigación en observación del océano, funcionamiento de instituciones de investigación marina en la producción de información operacional de observación del océano, y los productos operacionales de las observaciones océano-atmosféricas que se entregan al público y usuarios en general (incluidos los potenciales).

ANEXO II

OBJETIVOS PRIORITARIOS

- Coordinar armónicamente y optimizar regionalmente el uso adecuado de los recursos.
- Estudiar el sistema de corrientes de cada Alianza de manera integrada y desde una perspectiva regional y mundial.
- El intercambio de datos oceanográficos, meteorológicos, biológicos, químicos y ambientales del océano en el ámbito de cada Alianza, e intercambiarlos disponiendo la apropiada disponibilidad de los mismos para los diversos usuarios.
- Ejecutar la oceanografía operacional como se está haciendo con la meteorología operacional.
- Tener un mejor acceso y participación en los proyectos de investigación internacional (e.g. ARGO).
- Facilitar el acceso a la investigación de los mares costeros de las regiones de GRASP E IOCARIBE, y de ser necesario recomendar regulaciones para este acceso.
- Estudiar la variabilidad del océano operando a escalas de 20 – 40 días.
- Mejorar el Monitoreo sostenido del océano y la atmósfera integrando las prioridades nacionales, regionales de cada Alianza e integradas de las dos (2) Alianzas.

ANNEX VI

LIST OF PARTICIPANTS

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ANNEX VII

LIST OF ACRONYMS

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CARICOM	Caribbean Community
CARICOM RFM	CARICOM Regional Fisheries Mechanism
CDERA	Caribbean Disaster Emergency Response Agency
CEPREDENAC	Centro de Coordinación para la Prevención de los Desastres Naturales en América Central (Guatemala)
CERMES	Centre for Resource Management and Environmental Studies
CIDA	Canadian International Development Agency
CIMAB	Centro de Ingeniería y Manejo Ambiental de Bahías y Costas (Cuba)
CLME	Caribbean Large Marine Ecosystem
CMA	Caribbean Marine Atlas
CPPS	Comision Permanente del Pacifico Sur
CRFM	Caribbean Regional Fisheries Mechanism
CTA	Chief Technical Advisor
EPCOR-IAI	Eastern Pacific Consortium for Oceanographic Research
EXB	Extrabudgetary funds
FAO	Food and Agricultural Organization of UN
FUNVISIS	Fundación Venezolana de Investigación Sismológica
GEBCO	General Bathymetric Chart of the Oceans
GEF	Global Environmental Facility
GLOSS	Global Sea Level Observing System
GOOS	Global Ocean Observing System
GRAs	GOOS Regional Alliances
GRASP	GOOS Regional Alliance for the Southeast Pacific
HAB-ANCA	Harmful Algal Blooms
IAMSLIC	International Association of Aquatic and Marine Science Libraries and Information Centers
IBCCA	International Bathymetric Chart for the Caribbean and the Gulf of Mexico
ICAM	Integrated Coastal Area Management
ICG/CARIBE EWS	Intergovernmental Coordination Group for Tsunami and other Coastal Hazards Warning System
INIA	Instituto Nacional de Investigaciones Agrícolas (Venezuela)
INVEMAR	Instituto de Investigaciones Marinas y Costeras (Colombia)

IOC	Intergovernmental Oceanographic Commission
IOCARIBE	IOC Sub-Commission for the Caribbean and Adjacent Regions
IODE	Oceanographic Data and Information Exchange
IWCAM	Watershed and Coastal Areas Management in the Caribbean
LAC	Latin America and the Caribbean
LBS	Protocol for the Protection of the Marine Environment from Land-Based Sources
MEPC	Marine Environment Protection Committee
NOAA	National Oceanic and Atmospheric Administration (USA)
OAS	Organization of American States
ODINCARSA	Ocean Data and Information Network for the IOCARIBE and South America Regions
PCA-LME	Pacific Central American Large Marine Ecosystem Project
PCU	Project Coordination Unit
RPC	Regional Project Coordinator
SIDA	Swedish International Development Agency
SIDS	Small Island Developing States
SPINCAM	Southeast Pacific Data and Information Network in support to Integrated Coastal Area Management
TNC	Tsunami National Contact
TWFP	Tsunami Warning Focal Points
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEP/RCU	United Nations Environment Programme Regional Coordinating Unit
UNOPS	United Nations Office for Project Services
UWI	University of West Indies
WECAFC	Western Central Atlantic Fishery Commission
WESTPAC	IOC Sub-Commission for the Western Pacific
WMO	World Meteorological Organization

Reports of Governing and Major Subsidiary Bodies, which was initiated at the beginning of 1984, the reports of the following meetings have already been issued:

- | | | |
|-----|---|----------------|
| 1. | Eleventh Session of the Working Committee on international Oceanographic Data Exchange | E, F, S, R |
| 2. | Seventeenth Session of the Executive Council | E, F, S, R, Ar |
| 3. | Fourth Session of the Working Committee for Training, Education and Mutual Assistance | E, F, S, R |
| 4. | Fifth Session of the Working Committee for the Global Investigation of Pollution in the Marine Environment | E, F, S, R |
| 5. | First Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions | E, F, S |
| 6. | Third Session of the <i>ad hoc</i> Task team to Study the Implications, for the Commission, of the UN Convention on the Law of the Sea and the New Ocean Regime | E, F, S, R |
| 7. | First Session of the Programme Group on Ocean Processes and Climate | E, F, S, R |
| 8. | Eighteenth Session of the Executive Council | E, F, S, R, Ar |
| 9. | Thirteenth Session of the Assembly | E, F, S, R, Ar |
| 10. | Tenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific | |
| 11. | Nineteenth Session of the Executive Council, Paris, 1986 | E, F, S, R, Ar |
| 12. | Sixth Session of the IOC Scientific Committee for the Global Investigation of Pollution in the Marine Environment | E, F, S |
| 13. | Twelfth Session of the IOC Working Committee on International Oceanographic Data Exchange | E, F, S, R |
| 14. | Second Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions, Havana, 1986 | E, F, S |
| 15. | First Session of the IOC Regional Committee for the Central Eastern Atlantic, Praia, 1987 | E, F, S |
| 16. | Second Session of the IOC Programme Group on Ocean Processes and Climate | E, F, S |
| 17. | Twentieth Session of the Executive Council, Paris, 1987 | E, F, S, R, Ar |
| 18. | Fourteenth Session of the Assembly, Paris, 1987 | E, F, S, R, Ar |
| 19. | Fifth Session of the IOC Regional Committee for the Southern Ocean | E, F, S, R |
| 20. | Eleventh Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific, Beijing, 1987 | E, F, S, R |
| 21. | Second Session of the IOC Regional Committee for the Co-operative Investigation in the North and Central Western Indian Ocean, Arusha, 1987 | E, F |
| 22. | Fourth Session of the IOC Regional Committee for the Western Pacific, Bangkok, 1987 | E only |
| 23. | Twenty-first Session of the Executive Council, Paris, 1988 | E, F, S, R |
| 24. | Twenty-second Session of the Executive Council, Paris, 1989 | E, F, S, R |
| 25. | Fifteenth Session of the Assembly, Paris, 1989 | E, F, S, R |
| 26. | Third Session of the IOC Committee on Ocean Processes and Climate, Paris, 1989 | E, F, S, R |
| 27. | Twelfth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific, Novosibirski, 1989 | E, F, S, R |
| 28. | Third Session of the Sub-Commission for the Caribbean and Adjacent Regions, Caracas, 1989 | E, S |
| 29. | First Session of the IOC Sub-Commission for the Western Pacific, Hangzhou, 1990 | E only |
| 30. | Fifth Session of the IOC Regional Committee for the Western Pacific, Hangzhou, 1990 | E only |
| 31. | Twenty-third Session of the Executive Council, Paris, 1990 | E, F, S, R |
| 32. | Thirteenth Session of the IOC Committee on International Oceanographic Data and Information Exchange, New York, 1990 | E only |
| 33. | Seventh Session of the IOC Committee for the Global Investigation of Pollution in the Marine Environment, Paris, 1991 | E, F, S, R |
| 34. | Fifth Session of the IOC Committee for Training, Education and Mutual Assistance in Marine Sciences, Paris, 1991 | E, F, S, R |
| 35. | Fourth Session of the IOC Committee on Ocean Processes and Climate, Paris, 1991 | E, F, S, R |
| 36. | Twenty-fourth Session of the Executive Council, Paris, 1991 | E, F, S, R |
| 37. | Sixteenth Session of the Assembly, Paris, 1991 | E, F, S, R, Ar |
| 38. | Thirteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific, Baja California, 1991 | E, F, S, R |
| 39. | Second Session of the IOC-WMO Intergovernmental WOCE Panel, Paris, 1992 | E only |
| 40. | Twenty-fifth Session of the Executive Council, Paris, 1992 | E, F, S, R |
| 41. | Fifth Session of the IOC Committee on Ocean Processes and Climate, Paris, 1992 | E, F, S, R |
| 42. | Second Session of the IOC Regional Committee for the Central Eastern Atlantic, Lagos, 1990 | E, F |
| 43. | First Session of the Joint IOC-UNEP Intergovernmental Panel for the Global Investigation of Pollution in the Marine Environment, Paris, 1992 | E, F, S, R |
| 44. | First Session of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms, Paris, 1992 | E, F, S |
| 45. | Fourteenth Session of the IOC Committee on International Oceanographic Data and Information Exchange, Paris, 1992 | E, F, S, R |
| 46. | Third Session of the IOC Regional Committee for the Co-operative Investigation in the North and Central Western Indian Ocean, Vascoas, 1992 | E, F |
| 47. | Second Session of the IOC Sub-Commission for the Western Pacific, Bangkok, 1993 | E only |
| 48. | Fourth Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions, Veracruz, 1992 | E, S |
| 49. | Third Session of the IOC Regional Committee for the Central Eastern Atlantic, Dakar, 1993 | E, F |
| 50. | First Session of the IOC Committee for the Global Ocean Observing System, Paris, 1993 | E, F, S, R |
| 51. | Twenty-sixth Session of the Executive Council, Paris, 1993 | E, F, S, R |
| 52. | Seventeenth Session of the Assembly, Paris, 1993 | E, F, S, R |
| 53. | Fourteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific, Tokyo, 1993 | E, F, S, R |
| 54. | Second Session of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms, Paris, 1993 | E, F, S |
| 55. | Twenty-seventh Session of the Executive Council, Paris, 1994 | E, F, S, R |
| 56. | First Planning Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Melbourne, 1994 | E, F, S, R |
| 57. | Eighth Session of the IOC-UNEP-IMO Committee for the Global Investigation of Pollution in the Marine Environment, San José, Costa Rica, 1994 | E, F, S |
| 58. | Twenty-eighth Session of the Executive Council, Paris, 1995 | E, F, S, R |
| 59. | Eighteenth Session of the Assembly, Paris, 1995 | E, F, S, R |
| 60. | Second Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Paris, 1995 | E, F, S, R |

61.	Third Session of the IOC-WMO Intergovernmental WOCE Panel, Paris, 1995	E only
62.	Fifteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific, Papete, 1995	E, F, S, R
63.	Third Session of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms, Paris, 1995	E, F, S
64.	Fifteenth Session of the IOC Committee on International Oceanographic Data and Information Exchange	E, F, S, R
65.	Second Planning Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Paris, 1995	E only
66.	Third Session of the IOC Sub-Commission for the Western Pacific, Tokyo, 1996	E only
67.	Fifth Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions, Christ Church, 1995	E, S
68.	Intergovernmental Meeting on the IOC Black Sea Regional Programme in Marine Sciences and Services	E, R
69.	Fourth Session of the IOC Regional Committee for the Central Eastern Atlantic, Las Palmas, 1995	E, F, S
70.	Twenty-ninth Session of the Executive Council, Paris, 1996	E, F, S, R
71.	Sixth Session for the IOC Regional Committee for the Southern Ocean and the First Southern Ocean Forum, Bremerhaven, 1996	E, F, S,
72.	IOC Black Sea Regional Committee, First Session, Varna, 1996	E, R
73.	IOC Regional Committee for the Co-operative Investigation in the North and Central Western Indian Ocean, Fourth Session, Mombasa, 1997	E, F
74.	Nineteenth Session of the Assembly, Paris, 1997	E, F, S, R
75.	Third Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Paris, 1997	E, F, S, R
76.	Thirtieth Session of the Executive Council, Paris, 1997	E, F, S, R
77.	Second Session of the IOC Regional Committee for the Central Indian Ocean, Goa, 1996	E only
78.	Sixteenth Session of the International Co-ordination Group for the Tsunami Warning System in the Pacific, Lima, 1997	E, F, S, R
79.	Thirty-first Session of the Executive Council, Paris, 1998	E, F, S, R
80.	Thirty-second Session of the Executive Council, Paris, 1999	E, F, S, R
81.	Second Session of the IOC Black Sea Regional Committee, Istanbul, 1999	E only
82.	Twentieth Session of the Assembly, Paris, 1999	E, F, S, R
83.	Fourth Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Paris, 1999	E, F, S, R
84.	Seventeenth Session of the International Coordination Group for the Tsunami Warning System in the Pacific, Seoul, 1999	E, F, S, R
85.	Fourth Session of the IOC Sub-Commission for the Western Pacific, Seoul, 1999	E only
86.	Thirty-third Session of the Executive Council, Paris, 2000	E, F, S, R
87.	Thirty-fourth Session of the Executive Council, Paris, 2001	E, F, S, R
88.	Extraordinary Session of the Executive Council, Paris, 2001	E, F, S, R
89.	Sixth Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions, San José, 1999	E only
90.	Twenty-first Session of the Assembly, Paris, 2001	E, F, S, R
91.	Thirty-fifth Session of the Executive Council, Paris, 2002	E, F, S, R
92.	Sixteenth Session of the IOC Committee on International Oceanographic Data and Information Exchange, Lisbon, 2000	E, F, S, R
93.	Eighteenth Session of the International Coordination Group for the Tsunami Warning System in the Pacific, Cartagena, 2001	E, F, S, R
94.	Fifth Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Paris, 2001	E, F, S, R
95.	Seventh Session of the IOC Sub-commission for the Caribbean and Adjacent Regions (IOCARIBE), Mexico, 2002	E, S
96.	Fifth Session of the IOC Sub-Commission for the Western Pacific, Australia, 2002	E only
97.	Thirty-sixth Session of the Executive Council, Paris, 2003	E, F, S, R
98.	Twenty-second Session of the Assembly, Paris, 2003	E, F, S, R
99.	Fifth Session of the IOC Regional Committee for the Co-operative Investigation in the North and Central Western Indian Ocean, Kenya, 2002 (* Executive Summary available separately in E, F, S & R)	E*
100.	Sixth Session of the IOC Intergovernmental Panel on Harmful Algal Blooms, St. Petersburg (USA), 2002 (* Executive Summary available separately in E, F, S & R)	E*
101.	Seventeenth Session of the IOC Committee on International Oceanographic Data and Information Exchange, Paris, 2003 (* Executive Summary available separately in E, F, S & R)	E*
102.	Sixth Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Paris, 2003 (* Executive Summary available separately in E, F, S & R)	E*
103.	Nineteenth Session of the International Coordination Group for the Tsunami Warning System in the Pacific, Wellington, New Zealand, 2003 (* Executive Summary available separately in E, F, S & R)	E*
104.	Third Session of the IOC Regional Committee for the Central Indian Ocean, Tehran, Islamic Republic of Iran, 21-23 February 2000	E only
105.	Thirty-seventh Session of the Executive Council, Paris, 2004	E, F, S, R
106.	Seventh Session of the IOC-WMO-UNEP Committee for the Global Ocean Observing System, Paris, 2005 (* Executive Summary available separately in E, F, S & R); and Extraordinary Session, Paris, 20 June 2005	E*
107.	First Session of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), Perth, Australia, 3-5 August 2005	E only
108.	Twentieth Session of the Intergovernmental Coordination Group for the Tsunami Warning System in the Pacific, Viña del Mar, Chile, 3-7 October 2005 (* Executive Summary available separately in E, F, S & R)	E*
109.	Twenty-Third Session of the Assembly, Paris, 21-30 June 2005	E, F, S, R
110.	First Session of the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North Eastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS), Rome, Italy, 21-22 November 2005	E only
111.	Eighth Session of the IOC Sub-commission for the Caribbean and Adjacent Regions (IOCARIBE), Recife, Brazil, 14-17 April 2004 (* Executive Summary available separately in E, F, S & R)	E*
112.	First Session of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean Sea and Adjacent Regions (ICG/CARIBE-EWS), Bridgetown, Barbados, 10-12 January 2006	E only
113.	Ninth Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE), Cartagena de Indias, Colombia, 19-22 April 2006 (* Executive Summary available separately in E, F, S & R)	E S*

114.	Second Session of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), Hyderabad, India, 14–16 December 2005	E only
115.	Second Session of the WMO-IOC Joint Technical Commission for Oceanography and Marine Meteorology, Halifax, Canada, 19–27 September 2005 (Abridged final report with resolutions and recommendations)	E, F, R, S
116.	Sixth Session of the IOC Regional Committee for the Western Indian Ocean (IOCWIO), Maputo, Mozambique, 2–4 November 2005 (* Executive Summary available separately in E, F, S & R)	E*
117.	Fourth Session of the IOC Regional Committee for the Central Indian Ocean, Colombo, Sri Lanka 8–10 December 2005 (* Executive Summary available separately in E, F, S & R)	E*
118.	Thirty-eighth Session of the Executive Council, Paris, 20 June 2005 (Electronic copy only)	E, F, R, S
119.	Thirty-ninth Session of the Executive Council, Paris, 21–28 June 2006	E, F, R, S
120.	Third Session of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), Bali, Indonesia, 31 July–2 August 2006 (*Executive Summary available separately in E,F,S & R)	E*
121.	Second Session of the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North Eastern Atlantic, the Mediterranean and Connected Seas (ICG/NEAMTWS), Nice, France, 22–24 May 2006	E only
122.	Seventh Session of the IOC Intergovernmental Panel on Harmful Algal Blooms, Paris, France, 16–18 March 2005 (* Executive Summary available separately in E, F, S & R)	E*
123.	Fourth Session of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS-IV), Mombasa, Kenya, 30 February-2 March 2007 (* Executive Summary available separately in E, F, S & R)	E*
124.	Nineteenth Session of the IOC Committee on International Oceanographic Data and Information Exchange, Trieste, Italy, 12–16 March 2007 (* Executive Summary available separately in E, F, S & R)	E*
125.	Third Session of the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North Eastern Atlantic, the Mediterranean and Connected Seas, Bonn, Germany, 7–9 February 2007 (* Executive Summary available separately in E, F, S & R)	E*
126.	Second Session of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean Sea and Adjacent Regions, Cumaná, Venezuela, 15–19 January 2007 (* Executive Summary available separately in E, F, S & R)	E*
127.	Twenty-first Session of the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System, Melbourne, Australia, 3–5 May 2006 (* Executive Summary available separately in E, F, S & R)	E*
128.	Twenty-fourth Session of the Assembly, Paris, 19–28 June 2007	E, F, S, R
129.	Fourth Session of the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North Eastern Atlantic, the Mediterranean and Connected Seas, Lisbon, Portugal, 21–23 November 2007 (* Executive Summary available separately in E, F, S & R)	E*
130.	Twenty-second Session of the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System, Guayaquil, Ecuador, 17–21 September 2007 (* Executive Summary available in E, F, S & R included)	E*
131.	Forty-first Session of the Executive Council, Paris, 24 June–1 July 2008	E, F, R, S
132.	Third Session of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean Sea and Adjacent Regions, Panama City, Panama, 12–14 March 2008 (* Executive Summary available separately in E, F, S & R)	E*
133.	Eighth Session of the IOC Intergovernmental Panel on Harmful Algal Blooms, Paris, France, 17–20 April 2007 (* Executive Summary available separately in E, F, S & R)	E*
134.	Twenty-third Session of the Intergovernmental Coordination Group for the Pacific Tsunami Warning and Mitigation System, Apia, Samoa, 16–18 February 2009 (*Executive Summary available separately in E, F, S & R)	E*
135.	Twentieth Session of the IOC Committee on International Oceanographic Data and Information Exchange, Beijing, China, 4–8 May 2009 (*Executive Summary available separately in E, F, S & R)	E*
136.	Tenth Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE), Puerto La Cruz, Bolivarian Republic of Venezuela, 22–25 October 2008 (*Executive Summary available separately in E, F, S & R)	E, S*