



unesco

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION
(of UNESCO)

**Seventeenth Session of the UNESCO IOC Sub-Commission for the Caribbean and
Adjacent Regions (IOCARIBE)**

(9–11 May 2023)

EXECUTIVE SUMMARY

In accordance with Rule of Procedure 48.3 ([IOC/INF-1166](#)), IOCARIBE, as a primary Subsidiary Body of IOC, is required to report to an IOC Governing Body on its sessions.

The documentation for the session and more information are available [online](#).

The IOC Assembly at its 32nd Session (Paris, France, 21–30 June 2023) will be invited to consider the Executive Summary as presented in the Action Paper (IOC/A-32/AP Prov.) and by the Chairperson of the Sub-commission in plenary as well as the recommendations contained in this document.

¹ The Executive Summary is available in Spanish

Introduction

1. The Seventeenth Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions (SC-IOCARIBE-XVII) was held in Bogotá, Colombia from 9 to 11 May 2023. The session was attended by 93 participants from 19 countries of the Caribbean Region, 1 country from outside the Sub-Commission (El Salvador), representatives from 2 UN agencies and 10 regional organizations. At this session, IOCARIBE reviewed progress made during the Intersessional period 2021–2023 and adopted 10 recommendations.

Main outcomes of the session

2. The Sub-Commission thanked the government of Colombia for their continuous support and for hosting the Seventeenth Session of the IOC Sub-Commission.

3. The Sub-Commission acknowledged the support it received from the Government of Colombia for hosting the IOCARIBE Secretariat in the city of Cartagena since its initial establishment in 1986.

4. The Sub-Commission acknowledged and thanked Dr. César Toro, who retired last year, for his work, and welcomed Dr. Lorna Inniss, who joined the Secretariat in January 2023 as Head of the IOCARIBE Secretariat.

5. Member States acknowledged the progress of the work of the Sub-Commission and IOC in the region in the marine environment and biodiversity.

IOCARIBE SECRETARY'S REPORT ON THE WORK ACCOMPLISHED SINCE SIXTEENTH SESSION AND BUDGET IMPLEMENTATION

6. The Sub-Commission took note of the Secretary's report. The biennium began in January 2022, and Dr. Toro retired from the Secretariat one month later. UNESCO Science Officer with the Cluster Office in Jamaica, Mr Jean Paul Ngome Abiaga, became Interim Secretary, along with his own workload. Ms. Inniss arrived at the Secretariat in January 2023. The report presented was mostly taken from Dr. Toro's exit report to UNESCO-IOC, which covers activities from the previous biennium, ended in December 2021.

7. The Sub-Commission recognized the importance of working on (i) the Ocean Decade, (ii) an integrated ocean observation network, (iii) the need to communicate more effectively the work of the Secretariat and (iv) engagement and co-design and co-implementation of programs with young people of the region.

8. The Sub-Commission requested the IOCARIBE Secretary to focus on priorities and needs created by major ocean-related threats on the region, such as, but not limited to: sargassum proliferation and its management, sensitivity, and coastal risks due to the actions of extreme weather events, changes in sea level and its effects in coastal areas of the Small Island Developing States.

9. The Sub-Commission requested the IOCARIBE Secretary to strengthen IOC and IOCARIBE's vision to support a sustainable ocean economy and maximize the benefit from ocean science, through the effective involvement of the various sectors that use ocean resources.

10. The Sub-Commission took note that the Third UN Ocean Conference, chaired jointly by the governments of France and Costa Rica, will take place in Nice in June 2025, and will be preceded by a high level international meeting in Costa Rica in June 2024. Member States were encouraged to participate.

IOC MEDIUM TERM STRATEGY 2022–2029

11. The Sub-Commission acknowledged the IOC Medium Term Strategy 2022-2029, which includes activities to (i) assist the continental coastal Latin-American and the Caribbean SIDS Member States to achieve sustainable use of the ocean and coastal resources, (ii) focus on climate change, such as hurricanes, severe storms, coastal inundation, coastal erosion, and Sargassum beaching, occur on the background of generally low resilience of island countries, (iii) strengthening Member States' capacity of managing the ocean, in national and transboundary context, through an ecosystem-based management approach, (iv) formulating national and regional policies and plans to develop ocean science and technology as well as exchange mechanism, and (v) providing a Regional hub for cooperation between organizations of the UN system, IGOs, NGOs, and the scientific community.

REVISED IOC CAPACITY DEVELOPMENT STRATEGY

12. The Sub-Commission acknowledged the key updates made in the draft IOC Capacity Development Strategy for 2023-2030 to be presented to the IOC Assembly. The revised strategy incorporated an increased recognition that the ocean plays in political, commercial, science and society and the importance of capacity development in the delivery of the Decade of Ocean Science. It also highlighted IOC's critical role in fostering international cooperation while using the strategy as the motivation to develop an implementation plan, such that IOC CD activities are clearly articulated with ocean issues and that the benefits are more readily identified.

13. The Sub-Commission requested the IOCARIBE Secretary to assess needs and tailor capacity development activities to regional requirements including via the UN Ocean Decade Capacity Development Facility and the Ocean Teacher Global Academy (OTGA).

DRAFT UNESCO ROLLING OPERATIONAL STRATEGY/Framework FOR SMALL ISLAND DEVELOPING STATES 2022–2029

14. The Sub-Commission acknowledged the strategic priorities for the SIDS identified in the Draft UNESCO Strategy, which includes: (i) supporting SIDS in benefitting from new generation of Early Warning System including Tsunami early warning systems, (ii) SIDS capacity development in the field of marine science and technology (iii) supporting in advancing ocean observation and data management through the Global Ocean Observing System (GOOS) and IOC Ocean Data and Information System (ODIS) (iv) reinforcement of cooperation to address the specific challenges posed by sea-level rise, ocean pollution and acidification, loss of marine biodiversity, and coastal erosion (v) building resilience of vulnerable communities to climate change, and the regeneration of biodiversity stocks and (vi) foster strategic partnerships to mobilize funding opportunities from all sources.

DRAFT REVISED IOC OCEANOGRAPHIC DATA EXCHANGE POLICY

15. The Sub-Commission took note of the final draft of the IWG-DATAPOLICY, which will be submitted to the IOC Assembly at its 32nd session for adoption. The IODE-XXVII Committee strongly recommended that IOCARIBE member states support the Data Policy at the IOC Assembly and adopt the Policy as a new global commitment to "Data & Information we need for the future of Ocean we want".

DEVELOPMENT OF A NEW IOC-WIDE STRATEGY ON SUSTAINABLE OCEAN PLANNING AND MANAGEMENT

16. The Sub-Commission was informed about the process for the development of an IOC-wide Strategy on Sustainable Ocean Planning & Management, which would guide the contribution of the Commission across its programmes in ocean sciences, observation and data, early warning services and assessments, through the development of new services, ecosystem-based

management tools, assessment and related information products, as well as capacity development in support to sustainable ocean management. Such process will be presented and further discussed at the IOC Assembly in June 2023.

17. The Sub-Commission took note of the process for developing the IOC-wide Strategy on Sustainable Ocean Planning Management (2024–2030), as well as the consultation process foreseen to collect inputs from Member States, IOC programmes and technical bodies as well as relevant stakeholders engaged in ocean management, prior to its presentation to the IOC Council at its 57th session in 2024.

DRAFT UPDATED IOCARIBE MEDIUM TERM STRATEGIC SCIENCE PLAN

18. The Sub-Commission acknowledged the key updates made to the IOCARIBE Medium Term Strategic Science Plan (2023-2029).

19. The Sub-Commission requested the IOCARIBE Secretary to establish an open-ended intersessional committee to examine and revise the second draft of the IOCARIBE Medium Term Strategic Science Plan and ensure appropriate consultation with Member States. A revised strategy shall be presented to the IOCARIBE board, prior to approval by Member States before the end of 2023. An IOCARIBE Board Officer will be invited to chair the committee.

20. The Sub-Commission requested the IOCARIBE Secretary to perform a periodic evaluation of Strategic Science plan progress and activities every two years.

UN OCEAN DECADE: GLOBAL UPDATE

21. The Sub-Commission acknowledged the progress made in operationalizing the Ocean Decade Implementation Plan. To date, four Calls for Decade Actions have been concluded and have resulted in the endorsement of 47 Decade programmes, 235 Decade projects and 79 Decade contributions. The fifth Call for Decade Actions is currently open until 31 August 2023. While the portfolio of Decade Actions exhibits strong thematic diversity, there are still important gaps in leadership from partners in SIDS and LDCs.

22. The Sub-Commission acknowledged that the priorities for the Ocean Decade over the next 12 to 18 months will include increased focus on engagement of African countries and SIDS, including exploration of mechanisms for dedicated streams of funding for Decade Actions led by partners in these countries. The Ocean Decade Capacity Development Facility that will be operationalised in the coming months would focus on delivering demand-driven capacity development to Decade partners, with a focus on LDCs, SIDS and Early Career Ocean Professionals.

23. The Sub-Commission was reminded that the 2024 Ocean Decade Conference will be generously hosted by Spain in Barcelona from 10-12 April 2024 and will be a critical moment in the implementation of the Decade. This Conference will provide an opportunity to take stock of achievements of the Decade to date, and to set a collective vision for the way forward and strong engagement of partners from the region will be important.

24. The Sub-Commission invited Member States to engage in the Ocean Decade Implementation Plan through different opportunities, such as (i) supporting the establishment and operation of an IOCARIBE Ocean Decade Coordination Office e.g. via secondments or financial support, (ii) engagement in regional Ocean Decade Taskforce, (iii) supporting the establishment and empowerment of National Decade Committees, (iv) development of national ocean science action plans that align with regional Ocean Decade priorities, (v) alignment of national resource allocation to regional Ocean Decade priorities, (vi) supporting the national capacity development needs assessments and partnership in Ocean Decade Capacity Development Facility, (vii)

engagement in 2024 Ocean Decade Conference and (viii) manifesting interest to join the Ocean Decade Alliance.

UN OCEAN DECADE: STATUS OF PROJECTS AND TAC WORKING GROUPS, AND PREPARATION OF NEW PROJECT SUBMISSIONS FOR DECADE ENDORSEMENT

25. The Sub-Commission acknowledged the progress achieved during the intersessional period by the Ocean Decade Actions and the work on the proposals for Decade endorsed projects and for engagement to advance a co-design process. Working groups were formed, workshops were held, and the Regional Planning Group met regularly. With the retirement of the previous IOCARIBE Secretary, some momentum was lost, although it is envisaged that there will be significant progress during 2023 and beyond.

26. The Sub-Commission acknowledged the progress made by the endorsed Project No 138.2. Integrating Coastal Hazard Warning Systems for TAC. This project is included in the Ocean Decade Endorsed programme CoastPredict, and it enhances the work of the ICG Caribe EWS. The work is beginning, with the confirmation of several partners already identified, and the ongoing review of a survey completed by UN DRR office in Barbados, focused on gaps and needs for early warning systems.

27. The Sub-Commission requested IOCARIBE Secretary to align all threats that IOCARIBE is working on under a multi hazard framework, utilizing the Integrating Coastal Hazard Early Warning Systems for the Tropical Americas and Caribbean (iCHEWS) UN Ocean Decade endorsed project.

28. The Sub-Commission acknowledged the progress made by the endorsed project No. 133.2 - Gain knowledge to respond to multiple stressors, and encouraged its partner, the Gulf and Caribbean Fisheries Institute (GCFI) to continue plans for a TAC Ocean Decade Session at their annual meeting.

29. The Sub-Commission acknowledged the progress made by the endorsed project No. 135.2 - TAC Ocean Observing and Forecasting System for the TAC Region.

30. The Sub-Commission acknowledged the progress made by the endorsed project No. 134.2 Pollutants Observatory. The TAC Pollutants Observatory project will focus on addressing key gaps in knowledge related to understanding the fate of pollutants in the region. The key and essential action toward success of this project is the integration of diverse ocean actors in the TAC region related to marine pollution and different stressors, to increase and use of ocean knowledge through cooperation and partnership.

31. The Sub-Commission acknowledged the progress on the endorsed project No. 140.2 MACHC-IOCARIBE Seabed 2030 Project and its goals to contribute Existing Non-Public Bathymetric Data to the IHO DCDB and GEBCO Grid, increase Data Coverage and Build Capacity for mapping contributions.

32. The Sub-Commission recognized the work of the TAC Regional Planning Group and Working Groups.

ESTABLISHMENT OF UN OCEAN DECADE COORDINATION OFFICE FOR THE TROPICAL AMERICAS AND THE CARIBBEAN

33. The Sub-Commission acknowledged the need of the region to have a dedicated regional coordination structure to support stakeholders to fully engage in the Decade and to ensure that the specific characteristics of the region are addressed.

34. The Sub-Commission invited Member States to review the Terms of Reference (ToR) for the establishment of a Decade Coordination Office (DCO) within the IOCARIBE Secretariat before September 2023, and support the establishment of the DCO according to the approved ToR.

35. The Sub-Commission invited Member States and partners to provide in-kind and financial resources for the operations of the DCO, including through the provision of secondments, internships, Junior Professional Officers, the loaning of personnel and the hosting of regional and international UN Ocean Decade events.

36. The Sub-Commission encouraged Member States to establish National Decade Committees with the technical support and guidance of IOC and participate in outreach and engagement activities in regional and international fora.

PROPOSED AMENDMENTS TO THE TERMS OF REFERENCE OF THE TAC REGIONAL PLANNING GROUP TO ADVANCE AND COORDINATE STRATEGIC PARTNERSHIPS AND ACTIONS FOR WTA ENGAGEMENT IN THE UN DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT (2021–2030)

37. The Sub-Commission requested the IOCARIBE Secretary to establish the TAC Regional Task Force according to the ToRs as presented. The Decade TAC Task Force would be established as a technical advisory body that will provide strategic advice to the Secretariat and Governing Bodies of the Sub-commission.

38. The Sub-Commission requested the IOCARIBE Secretary to invite international and regional intergovernmental organizations and funding partners to act as observers at meetings of the TAC Regional Task Force.

39. The Sub-Commission requested the IOCARIBE Secretary to develop a framework that aligns IOCARIBE programs with the UN Ocean Decade in consultation with the Board of Officers and the TAC Regional Task Force.

ENHANCED COMMUNICATION AND ENGAGEMENT STRATEGY TO RAISE AWARENESS OF OCEAN DECADE ACTIVITIES, AND NATIONAL DECADE COMMITTEES

40. The Sub-Commission requested the IOCARIBE Secretary to: (i) maintain and update the IOCARIBE Member States' points of contact, through appropriate and agreed upon channels, and encourage them to regularly identify and update the points of contacts for their corresponding programs, and projects in the framework of IOCARIBE, (ii) communicate the process of how the Member States can be engaged in the IOCARIBE programs and projects to enable them to work together, (iii) develop a communications plan based on the IOC communications strategy and develop best practices to ensure that the IOCARIBE Member States are aware of knowledge, applications, services, tools and products being generated to aid in decision making; and (iv) invite the Sub-Commission to draft a template and develop a process and timeline for biennial national reporting by Member States.

OCEAN RESEARCH

Harmful Algal Bloom (HAB) Programme

41. The Sub-Commission acknowledged the progress made by the IOCARIBE-ANCA working group, during the 2021-2023 intersessional period. The working group achieved the goals proposed in March 2021 during the VIII ANCA-virtual workshop: i) increased visibility among the different social stakeholders in the Caribbean region; ii) identify and characterize the microalgae responsible for the intoxications (PSP, DSP, ASP, NSP, Ciguatera), as well as the toxins vector species in the Caribbean and adjacent areas; strengthening of research on epiphytic toxic dinoflagellates; iii) progress in initiatives on HAB early warning systems.

OBSERVATIONS, SERVICES, DATA AND INFORMATION, AND EARLY WARNING SYSTEMS

IOCARIBE GOOS Report from Science Conference

42. The Sub-Commission invited Member States to support the re-establishment of a sustained regional ocean observing and forecasting system and nominate experts to the working group of IOCARIBE GOOS through a Circular Letter.

43. The Sub-Commission requested the IOCARIBE Secretary to (i) identify and inventory priority observational needs including communication, social science and ocean literacy within the region while considering available resources and avoiding the duplication of previous work, and develop a regional strategy for ocean observing and forecasting, including ways to collectively facilitate domestic marine scientific research clearances for instrument deployments, (ii) establish a sustainable governance structure that includes ECOPs, and develop ToRs for IOCARIBE-GOOS that, *inter alia*, provides mechanisms for sharing experiences and activities among Member States; (iii) seek active representation and participation from each of the Member States in IOCARIBE GOOS; (iv) leverage ongoing regional and international activities and partnerships, including Caribbean Institute for Meteorology & Hydrology (CIMH) and Caribbean Coastal Ocean Observing System (CARICOOS); and (v) report metadata and other relevant information to OceanOPS.

Oceanographic Data and Information Exchange (IODE)

44. The Sub-Commission acknowledged that there are a number of IODE National Oceanographic Data Centers (NODC), Associate Data Units, and Associate Information Units in Latin America including in the IOCARIBE (underlined) region: Argentina x 2, Barbados (restarting) , Brazil x 2, Colombia x 3, Ecuador x 3, France, Jamaica (ISA), Mexico x 2, Netherlands, Panama, Peru, UK, USA. There were more but several became inactive in recent years. Out of the 32 IOCARIBE member states only 10 host a data centre.

45. The Sub-Commission requested the IOCARIBE Secretary to assess, prioritize and address the data, information and knowledge needs within the framework of IOCARIBE programs and projects.

46. The Sub-Commission encouraged Member States to strengthen existing and/or establish new National Oceanographic Data Centers, Associate Data Units, and Associate Information Units with the technical guidance of IODE and assist to develop FAIR and CARE best practices to ensure that collected data are appropriately deposited in recognized data repositories consistent with the IOC Oceanographic Data Exchange Policy.

IOC Ocean Info Hub and LAC Ocean Info Hub

47. The Sub-Commission acknowledged the progress made with the IOC Ocean Data and Information System, the Ocean InfoHub and the work done by INVEMAR for the development of a pilot regional hub of the Ocean InfoHub, which is the repository for geospatial data and information for the region.

48. The Sub-Commission requested IODE to provide technical guidance to IOCARIBE in the establishment of new Ocean Biodiversity Information System (OBIS) nodes and Ocean InfoHub (OIH) Ocean Data and Information System (ODIS) nodes in the region.

49. The Sub-Commission requested the IOCARIBE Secretary to support and benefit from the Colombian Marine and Coastal Research Institute's (INVEMAR) capacities, such as, OIH, OTGA, and other efforts in the Latin American and Caribbean region.

50. The Sub-Commission invited Member States to report on IOCARIBE needs and gaps, and respond to future surveys to help IOC understand needs and priorities.

ICG CARIBE EWS XV 2023 Report

51. The Sub-Commission acknowledged the progress on ICG CARIBE EWS and the work done by the working groups and task teams, which were reorganized and aligned with the Tsunami Decade Programme.

CAPACITY DEVELOPMENT

Ocean Teacher Global Academy (OTGA)

52. The Sub-Commission acknowledged the work done by the Ocean Teacher Global Academy (OTGA). The OTGA fully contributes to the implementation of the IOC Capacity Development Strategy, addressing key outputs identified in the strategy through increased support in the training activities of all IOC programmes. This support includes the Tsunami Unit, Ocean Literacy, Harmful Algal Bloom programme, IODE, Ocean Sciences and the Ocean Decade, amongst others. OTGA supports IOCARIBE to ensure the capacity development needs of the region are being met by supporting the OTGA Regional and Specialized Training Centres. Since 2020 OTGA has delivered more than 30 online training courses in the IOCARIBE region through its network of Regional and Specialized Training Centres. The result of this training will be increased national and regional capacity to effectively address the priority areas of the Ocean Decade, the 2030 Agenda and its SDGs.

Ocean Literacy

53. The Sub-Commission acknowledged the progress on the IOC Ocean Literacy Plan of Action, and requested the IOCARIBE Secretary to support Member States in the implementation of ocean literacy activities including via the use of A New Blue Curriculum: A toolkit for policymakers and the development of a feasibility study for a new regional blue schools network.

ASSESSMENT INFORMATION FOR POLICY AND SUSTAINABLE MANAGEMENT AND GOVERNANCE

Marine Spatial Planning and Sustainable Ocean Economy

54. The Sub-Commission took note of the status of Marine Spatial Planning around the world and in the Wider Caribbean. In the region, countries and territories with advanced MSP processes are: Dominica, Grenada, Mexico, St Kitts and Nevis, St Lucia, St Vincent and the Grenadines.

55. The Sub-Commission acknowledged the opportunities for the region through: (i) MSProadmap / Regional MSPforum for Latin America and the Caribbean: Mobilize resources and regional collaborations to co-organize 2nd edition as an inperson event; (ii) MSPglobal 2.0: Opportunities for regional experts and stakeholders to engage in the global activities of the project such as strategic workshops to develop new knowledge and tools for MSP as well as the 6th International MSPforum (2024) and Online training based on the MSPglobal Guide; and (iii) MSP Challenge/MSPglobal training network: IOCARIBE is a member of the training network and received a Spanish version of the MSP Challenge board game for capacity development activities.

56. The Sub-Commission welcomed the organization of the 1st Marine Spatial Planning (MSP) Regional Forum for Latin America and Caribbean held virtually in December 2022, supported through the Government of Sweden, and explore the organization of future MSP fora on a regular basis through in-person meetings, bringing together MSP practitioners.

57. The Sub-Commission called on IOCARIBE Member States to establish MSP processes and contribute to the implementation of the Joint MSP Roadmap (2022-2027) through the engagement of IOCARIBE regional experts and stakeholders in the activities of the MSP Global initiative.

Caribbean Large Marine Ecosystem (CLME+) And PROCARIBE+

58. The Sub-commission took note of the progress for the operationalization of the PROCARIBE+ Project and requested the IOCARIBE Secretary to integrate the relevant PROCARIBE+ project activities into the work program of the IOCARIBE Sub-Commission.

Sargassum and Oil Spill Monitoring

59. The Sub-commission took note of the work done by NOAA/AOML on the Satellite monitoring, tracking and research of pelagic sargassum. The products and services can support research, resource management, and decision-making on topics such as understanding, managing and protecting ocean and coastal resources and for assessing impacts of environmental change in ecosystems, weather, and climate.

60. The Sub-Commission requested the IOCARIBE Secretary to capitalize on existing regional and international efforts to raise awareness of impacts and benefits for stakeholders, (ii) develop ways to include stakeholders to improve and use applications, services, tools and products in the region; and (iii) increase visibility and accessibility of Sargassum reports produced for the region and enhance communication between IOCARIBE Member States and stakeholders on efforts to experimentally monitor and track Sargassum.

61. The Sub-Commission requested the IOCARIBE Secretary to develop more robust regional tracking tools for Sargassum within the IOCARIBE Member States including local innovative solutions to monitor sargassum impact and understand the local environmental conditions which lead to Sargassum onshore landing.

62. The Sub-Commission requested the IOCARIBE Secretary to enhance the governance of Harmful Algae Blooms in the Caribbean and Adjacent Regions (HAB-ANCA) by considering close collaboration with the Sargassum programme, to explore ways to build synergies given their close alignment and ensure sharing of practices and data.

COSTA: Tracking Marine Oil Spill using satellites in the Americas

63. The Sub-commission took note of the work done by the Collaboration for Oil Satellite Tracking in the Americas (COSTA). COSTA is an international effort to enable nations in the Americas to stand up satellite oil monitoring and analysis capabilities in the Gulf of Mexico, Caribbean and adjacent oceans. With the availability of high resolution, publicly available satellite imagery, routine oil spill monitoring can provide the first warning of a spill or intentional vessel oil discharge, help inform and direct spill response resources during major spills, and help countries find and target chronic leak sources.

64. The Sub-Commission encouraged countries and territories to engage and participate in expanding a long term oil spill monitoring program in collaboration with the Collaboration for Oil Satellite Tracking in the Americas (COSTA), and support and benefit from the Trinidad and Tobago Institute of Marine Affairs oil spill monitoring effort in the Eastern and Southern Caribbean region or other sources of monitoring.

STATUS OF COOPERATION WITH OTHER ORGANIZATIONS

65. The Sub-Commission took note of the work done by AtlantOS, its approach to advancing ocean observing in the Atlantic through codesign and how it will enhance IOCARIBE GOOS to develop a partnership.

66. The Sub-Commission took note of the work done by the Local 2030 Islands Network and the benefits of partnership for the implementation of the Draft Rolling Operational Strategy for SIDS in the region. The Local2030 Islands Network is an innovative platform, which fosters strong international cooperation of islands across the world, to develop solutions to interconnected global challenges, many of which relate to the oceans that surround them.

67. The Sub-Commission took note of the work of Island Innovation Ambassador Program 2023 and its benefits for the region and potential to enhance the work of the Sub-Commission.

68. The Sub-Commission took note of the work of the Caribbean Youth Environmental Network (CYEN) and the importance to incorporate young people into the work of the IOC Sub-Commission, recognizing that they are the ocean governance leaders of tomorrow, and will inherit the successes and failures of the present generation of leaders.

69. The Sub-Commission requested IOCARIBE Secretary to: (i) define youth in the context of IOCARIBE, (ii) leverage mechanisms such as the UN Ocean Decade ECOP program, the OTGA, and the CYEN to enhance youth engagement, (iii) work with the UN Ocean Decade ECOP program in identifying ECOPs in the region and encourage participation in the ECOP program at all levels; and (iv) encourage ECOP participation in mentoring programs including but not limited to the Global Ocean Acidification Observing Network (GOA-ON) Pier2Peer mentorship program and identify ways to work with these programs in the IOCARIBE framework.

70. The Sub-Commission took note of the proposal for the LAC Region through GEMS Ocean led by UNEP. The Global Environment Monitoring System for the Ocean and Coasts (GEMS Ocean) Programme is focusing on integrating global observing systems to provide fit-for-purpose information and data to member states/regional bodies and support policy making to conserve, restore and properly manage coastal and marine ecosystems. For the TAC region, a Data Hackathon is proposed for 2023, in collaboration with IOCARIBE GOOS and IODE.

71. The Sub-Commission acknowledged the progress made by the Secretariat in establishing cooperation with international organizations and other regional programmes.

72. The Sub-Commission requested IOCARIBE Secretary to prioritize key stakeholders' engagement in IOCARIBE programmes, and in this context, to consider having French, English, and Spanish translation of documents and interpretation at future meetings, if resources permit.

ELECTIONS OF THE BOARD OF OFFICERS OF THE SUB-COMMISSION

73. The Sub-Commission elected the new Board of Officers for the next intersessional period 2023 - 2025: Mr Mark Oduber (Aruba) was elected as Chairperson; Ms. Soraya Silva (Venezuela), elected as Vice-Chairperson; Mr. John Victor Cortinas (United States) re-elected as Vice-Chairperson; and Mr. Roberto Dantas de Pinho (Brazil) elected as Vice-Chairperson. The new Board of Officers was elected by acclamation.

74. The Sub-Commission took note that the candidates provided an equitable sub-regional representation and diversity.

DATES AND PLACE OF THE EIGHTEENTH SESSION OF THE SUBCOMMISSION

75. The Sub-Commission decided to hold its Eighteenth Intergovernmental session during the first quarter of 2025. The United States stated that it would explore the possibility of hosting the 18th Session. The Chairperson invited other Member States to present their nominations to the Sub-Commission as soon as possible.

ADOPTION OF DECISIONS AND RECOMMENDATIONS

76. The Sub-Commission adopted ten Recommendations as follows:

No.	Title
1	Prioritization Recommendation SC-IOCARIBE-XVII.1
2	Governance Recommendation SC-IOCARIBE-XVII.2
3	Stakeholder engagement Recommendation SC-IOCARIBE-XVII.3
4	Youth engagement Recommendation SC-IOCARIBE-XVII.4
5	Communication Recommendation SC-IOCARIBE-XVII.5
6	Collaboration Recommendation SC-IOCARIBE-XVII.6
7	Awareness Recommendation SC-IOCARIBE-XVII.7
8	Data, Information, Knowledge and Tools Recommendation SC-IOCARIBE-XVII.8
9	UN Ocean Decade Recommendation SC-IOCARIBE-XVII.9
10	IOCARIBE GOOS Recommendation SC-IOCARIBE-XVII.10

ANNEX

RECOMMENDATIONS

Recommendation SC-IOCARIBE-XVII.1

Prioritization

Develop a regional strategy aligned with the priorities of the UN Ocean Decade based on the analysis of progress in the region in different areas of ocean science, countries' installed capacities and resources, take into account the projects, regional programs focused on the needs of the countries and existing regional agreements.

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

Requests the IOCARIBE Secretary to:

- i) Focus on the priorities dictated by the needs created by major impacts in the region, such as, but not limited to: sargassum proliferation and its management, sensitivity, and coastal risks due to the actions of extreme weather events, changes in sea level and its effects in coastal areas of the Small Island Developing States.
- ii) Strengthen IOC and IOCARIBE's vision to support a sustainable ocean economy and maximize the benefit from ocean science, through the effective involvement of the various sectors that use ocean resources.

Recommendation SC-IOCARIBE-XVII.2

Governance

Streamline programs within the IOCARIBE structure to ensure efficiency and reduce duplication, while ensuring progress, and align IOCARIBE programs with the UN Ocean Decade.

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

Requests the IOCARIBE Secretary to:

- i) Establish an open-ended intersessional committee to examine and revise the second draft of the IOCARIBE Medium Term Strategic Science Plan and ensure appropriate consultation with Member States. A revised strategy shall be presented to the IOCARIBE board, prior to approval by Member States before the end of 2023. An IOCARIBE Board Officer will be invited to chair the committee.
- ii) Perform a periodic evaluation of strategic plan progress and activities every two years.
- iii) Consider having French, English, and Spanish translation of documents and interpretation at future meetings, if resources permit.
- iv) Develop a framework that aligns IOCARIBE programs with the UN Ocean Decade in consultation with the TAC Regional Task Force.
- v) Encourage the governance of Harmful Algae Blooms in the Caribbean and Adjacent Regions (HAB-ANCA) and Sargassum and Oil Spill programs to explore ways to build synergies given their close alignment and ensure sharing of practices and data.

- vi) Foster strategic partnerships to mobilize funding opportunities and in-kind resources from diverse and innovative sources.

Recommendation SC-IOCARIBE-XVII.3

Stakeholder engagement

Create enhanced engagement of stakeholders including, but not limited to, the private sector, users of ocean science, local communities, non-governmental organizations (NGOs), and the general public, within the region including to raise awareness through ocean literacy and improve our understanding of their needs.

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

Requests the IOCARIBE Secretary to:

- i) Prioritize key stakeholders' engagement in IOCARIBE programs.
- ii) Support Member States in the implementation of ocean literacy activities including via the use of A New Blue Curriculum: A toolkit for policymakers and the development of a feasibility study for a new regional blue schools network.
- iii) Assess needs and tailor capacity development activities to regional requirements including via the UN Ocean Decade Capacity Development Facility and the Ocean Teacher Global Academy (OTGA).
- iv) Encourage countries and territories to engage and participate in expanding a long term oil spill monitoring program in collaboration with the Collaboration for Oil Satellite Tracking in the Americas (COSTA), and support and benefit from the Trinidad and Tobago Institute of Marine Affairs oil spill monitoring effort in the Eastern and Southern Caribbean region or other sources of monitoring.

Recommendation SC-IOCARIBE-XVII.4

Youth engagement

Noting that youth is a priority group for UNESCO, we look to enhance engagement of youth and Early Career Ocean Professionals (ECOPs) in IOCARIBE programs and initiatives.

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

Requests the IOCARIBE Secretary to:

- i) Define youth in the context of IOCARIBE.
- ii) Leverage mechanisms such as the UN Ocean Decade ECOP program, the OTGA, and the Caribbean Youth Environment Network (CYEN) to enhance youth engagement.
- iii) Work with the UN Ocean Decade ECOP program in identifying ECOPs in the region and encourage participation in the ECOP program at all levels.

- iv) Encourage ECOP participation in mentoring programs including but not limited to the Global Ocean Acidification Observing Network (GOA-ON) Pier2Peer mentorship program and identify ways to work with these programs in the IOCARIBE framework.

Recommendation SC-IOCARIBE-XVII.5

Communication

Improve communication and sharing of information amongst IOCARIBE Member States, and between regional and national institutions and their IOCARIBE representatives

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

Requests the IOCARIBE Secretary to:

- i) Maintain and update the IOCARIBE Member States points of contacts, through appropriate and agreed upon channels, and encourage them to regularly identify and update the points of contacts for their corresponding programs, and projects in the framework of IOCARIBE.
- ii) Communicate the process of how the Member States can be engaged in the IOCARIBE programs and projects to enable them to work together.
- iii) Develop a communications plan based on the IOC communications strategy and develop best practices to ensure that the IOCARIBE Member States are aware of knowledge, applications, services, tools and products being generated to aid in decision making.
- iv) Invite the Sub-Commission to draft a template and develop a process and timeline for biennial national reporting by Member States.

Recommendation SC-IOCARIBE-XVII.6

Collaboration

Enhance IOCARIBE Member State relationships with international programs, projects and initiatives to foster the opportunity for collaboration among groups, reduce duplication, and encourage collaborative efforts and the production of knowledge, applications, services, tools and products

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

Requests the IOCARIBE Secretary to:

- i) Align all threats that IOCARIBE is working on under a multi hazard framework, utilizing the Integrating Coastal Hazard Early Warning Systems for the Tropical Americas and Caribbean (iCHEWS) UN Ocean Decade endorsed project.
- ii) Integrate the relevant PROCARIBE+ project activities into the work program of the IOCARIBE Sub-Commission.

Recommendation SC-IOCARIBE-XVII.7

Awareness

Raise awareness, visibility and recognition of the IOCARIBE activities, tools, services, and products

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

Requests the IOCARIBE Secretary to:

- i) Capitalize on existing regional and international efforts to raise awareness of impacts and benefits for stakeholders.
- ii) Develop ways to include stakeholders to improve and use applications, services, tools and products in the region.
- iii) Increase visibility and accessibility of Sargassum reports produced for the region and enhance communication between IOCARIBE Member States and stakeholders on efforts to experimentally monitor and track Sargassum.

Recommendation SC-IOCARIBE-XVII.8

Data, Information, Knowledge and Tools

Raise awareness and provide support to create and link infrastructure, expertise and capacity to implement FAIR² and CARE³ principles and sharing of data collected by IOCARIBE Member States with the data assembly centers and the tools, following the IOC strategic plan for ocean data and information and other relevant IOC manuals. Facilitate the use and development of Member States' capacity for ecosystem-based management tools and processes. This includes but is not limited to capacity development, transfer of marine technology, supporting maintenance of equipment, and adoption of methodological best practices in research.

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

Requests the IOCARIBE Secretary to:

- i) Assess, prioritize and address the data, information and knowledge needs within the framework of IOCARIBE programs and projects.
- ii) Encourage Member States to strengthen existing and/or establish new National Oceanographic Data Centers, Associate Data Units, and Associate Information Units with the technical guidance of IODE and assist to develop FAIR and CARE best practices to ensure that collected data are appropriately deposited in recognized data repositories consistent with the IOC Oceanographic Data Exchange Policy.
- iii) Request IODE to provide technical guidance to IOCARIBE in the establishment of new Ocean Biodiversity Information System (OBIS) nodes and Ocean InfoHub (OIH) Ocean Data and Information System (ODIS) nodes in the region.

² Findable, Accessible, Interoperable, Reusable (FAIR)

³ Collective benefit, Authority to Control, Responsibility, and Ethics (CARE)

- iv) Support and benefit from the Colombian Marine and Coastal Research Institute's (INVEMAR) capacities, such as, OIH, OTGA, and other efforts in the Latin American and Caribbean region.
- v) Invite Member States to report on IOCARIBE needs and gaps, and respond to future surveys to help IOC understand needs and priorities.
- vi) Develop more robust regional tracking tools for Sargassum within the IOCARIBE Member States including local innovative solutions to monitor sargassum impact and understand the local environmental conditions which lead to Sargassum onshore landing.
- vii) Welcome the organization of the 1st Marine Spatial Planning (MSP) Regional Forum for Latin America and Caribbean held virtually in December 2022, supported through the Government of Sweden, and explore the organization of future MSP fora on a regular basis through in-person meetings, bringing together MSP practitioners.
- viii) Call on IOCARIBE Member States to establish MSP processes and contribute to the implementation of the Joint MSP Roadmap (2022-2027) through the engagement of IOCARIBE regional experts and stakeholders in the activities of the MSPGlobal initiative.

Recommendation SC-IOCARIBE-XVII.9

UN Ocean Decade

Encourage Member States to actively support the implementation of the UN Ocean Decade in the region.

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

Requests the IOCARIBE Secretary to:

- i) Recognize the work of the TAC Regional Planning Group and Working Groups.
- ii) Invite the Member States to review the Terms of Reference (ToR) for the establishment of a Decade Coordination Office (DCO) within the IOCARIBE Secretariat before September 2023, and support the establishment of the DCO according to the approved ToR.
- iii) Invite Member States and partners to provide in-kind and financial resources for the operations of the DCO, including through the provision of secondments, internships, Junior Professional Officers, the loaning of personnel and the hosting of regional and international UN Ocean Decade events.
- iv) Encourage Member States to establish National Decade Committees with the technical support and guidance of IOC and participate in outreach and engagement activities in regional and international fora.
- v) Establish the TAC Regional Task Force according to the ToRs as presented.
- vi) Invite international and regional intergovernmental organizations and funding partners to act as observers at meetings of the TAC Regional Task Force.

Recommendation SC-IOCARIBE-XVII.10

IOCARIBE GOOS

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

Requests the IOCARIBE Secretary to:

- i) Vote on the permanent coordinator for IOCARIBE GOOS;
- ii) Support the re-establishment of a sustained regional ocean observing and forecasting system and nominate experts to the working group of IOCARIBE GOOS through a Circular Letter;
- iii) Identify and inventory priority observational needs including communication, social science and ocean literacy within the region while considering available resources and avoiding the duplication of previous work, and develop a regional strategy for ocean observing and forecasting, including ways to collectively facilitate domestic marine scientific research clearances for instrument deployments.
- iv) Establish a sustainable governance structure that includes ECOPs, and develop ToRs for IOCARIBE-GOOS that amongst other issues provides mechanisms for sharing experiences and activities among Member States;
- v) Seek active representation and participation from each of the Member States in IOCARIBE GOOS;
- vi) Leverage ongoing regional and international activities and partnerships, including Caribbean Institute for Meteorology & Hydrology (CIMH) and Caribbean Coastal Ocean Observing System (CARICOOS);
- vii) Report metadata and other relevant information to OceanOPS (formerly JCOMMOPS).