Intergovernmental Oceanographic Commission

Reports of Governing and Major Subsidiary Bodies





Intergovernmental Oceanographic Commission

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

Eighteenth Session Brasilia, Brazil, 23-25 April 2025

MEETING REPORT

UNESCO 2025

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1. OPENING

1. The Chairperson of the Intergovernmental Oceanographic (IOC of UNESCO) Sub-Commission for the Caribbean and Adjacent Regions (IOCARIBE), Dr Marck Oduber (Kingdom of the Netherlands - Aruba) opened the hybrid session of the Eighteenth Session of the IOC Sub-Commission for the Caribbean and Adjacent Regions, SC-IOCARIBE-XVIII, at 09.00 hrs on April 23, 2025.

2. Dr Oduber introduced the Coordinator of the Natural Sciences Unit and Social and Human Sciences Unit at UNESCO Brasilia, Mr Fábio Soares Eon, who welcomed participants and highlighted the recent achievement of Brazil becoming the first country recognized by UNESCO to officially commit to integrating Ocean Literacy into its national school curriculum.

3. IOC Executive Secretary and UNESCO ADG/IOC, Mr Vidar Helgesen addressed the Session in representation of IOC of UNESCO. The UNESCO ADG/IOC thanked UNESCO Brasilia for hosting the SC-IOCARIBE-XVIII, congratulated Brazil for its commitment to integrate Ocean Literacy into its national school curriculum and welcomed the news that Antigua and Barbuda will become a new Member State to IOC.

4. The Chairperson then introduced the IOCARIBE Vice-Chair, Dr Roberto de Pinho, who also provided a warm welcome to participants and informed the meeting of the Government of Brazil's proposal for the city of Rio de Janeiro to host the next UN Ocean Decade Conference in 2027.

5. Ms María Angelica Toro Wills, Project Assistant of the IOCARIBE Secretariat, provided participants with logistical information regarding the zoom platform for the meeting, interventions of Member States and organizations, and simultaneous translation of the meeting.

2. ORGANIZATION OF THE SESSION

2.1. ADOPTION OF THE AGENDA

6. The Chairman called the attention of the meeting to Rule of Procedure #8 which addresses the need for a quorum for the meeting to continue. He called on the Secretariat to confirm the number of in-person and online delegations of Member States duly accredited to the 18th Session. The IOCARIBE Secretary, Dr Lorna Inniss confirmed that 17 Member States (Antigua and Barbuda, Barbados, Brazil, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Grenada, Guatemala, Jamaica, Kingdom of the Netherlands, Mexico, Panama, Trinidad and Tobago, Venezuela, USA), including three Territories (Aruba, Curacao, Puerto Rico) are duly accredited to the meeting.

7. The IOCARIBE Chairperson, Dr Marck Oduber, introduced the most recent version of the agenda and expressed sincere apologies for the delay in finalizing all key documents associated with the meeting. He recalled that the IOCARIBE Secretariat had secured a host as well as significant funding for the meeting more than one year ago. However, due to unforeseen circumstances, the Secretariat was advised in December 2024 that a new host should be sought. Following several consultations, the Government of Brazil and the UNESCO Office in Brasilia collaborated closely to facilitate the convening of the 18th Intergovernmental Session of the Sub-Commission.

8. The Chair invited the meeting to consider the adoption of the agenda. The IOCARIBE Secretary proposed two (2) additional agenda items: first, she requested the meeting's consideration for an amendment to agenda item 4 (Strategic Development) to add a presentation by ADG/ Executive Secretary IOC, Mr Vidar Helgesen, on important strategic issues related to IOC statutes, functional autonomy and implementation of the Medium-Term Strategy. The second amendment proposed was to agenda item 7 to add a brief presentation by Mr Marc Metian of the International Atomic Energy Agency (IAEA).

9. The representatives of Member States agreed to the amended changes to the agenda. The Chairperson of IOCARIBE proceeded to adopt the Agenda (Annex I).

10. The Vice-Chair of IOC UNESCO and Head of Delegation of Colombia, Mr Juan Camilo Forero, thanked the IOCARIBE Secretariat for the organization of the SC-IOCARIBE-XVIII meeting and emphasized the importance of providing documentation well in advance of the meeting to allow sufficient time for review.

2.2. DESIGNATION OF THE RAPPORTEUR FOR THE SESSION (CHAIR)

11. The Chairman requested that Member States submit nominations for a Rapporteur for the 18th Session. The Delegation of Brazil submitted the nomination of Mr Iran Cardoso Junior of Brazil, which was seconded by Colombia and Venezuela. The session then designated Mr Cardoso as rapporteur to assist the Chairperson and the Executive Secretary in the preparation of the draft provisional report of the Session.

2.3. ESTABLISHMENT OF SESSIONAL COMMITTEES AND WORKING GROUPS

12. The Chairman, Dr Marck Oduber, introduced this item. The Session was requested to work in Plenary as far as possible. However, where deemed necessary, the Session was requested to constitute open-ended working groups.

13. The Chairman invited the Sub-Commission to form two (2) sessional committees, the Recommendations Committee and the Nominations Committee, and invited proposals for additional technical sessional working groups.

14. A Recommendations Committee was formed to report on all draft recommendations duly presented for consideration at the session under item 10. The Recommendations Committee consisted of Dr Roberto de Pinho of Brazil as Chair and participants representing Guatemala (Ms Andrea José Paz Barillas) and Trinidad and Tobago (Dr Rahanna Juman).

15. No nominations were put forth for participation in the Nominations Committee and so the process of receiving proposals of candidates for the elections to the Chair and Vice-Chairs at the present session was carried out by the IOCARIBE Secretariat.

2.4. INTRODUCTION OF DOCUMENTATION AND TIMETABLE

16. The IOCARIBE Chair, Dr Marck Oduber, introduced this item. He briefly reviewed the list of working documents and reminded the Session that the report would be focused on recommendations, which will be drafted and discussed by the Recommendations Committee. Member States were invited to submit draft recommendations as early as possible. The Action Paper was intentionally drafted as a pre-report to streamline the reporting process during the session. Member States that wished to have specific, particularly important plenary interventions recorded were invited to provide written records thereof in one of the three languages of the Sub-Commission to be included in the report. A template and a dedicated e-mail address (iocaribe@unesco.org) was set up for this purpose (IOC/SC-IOCARIBE-XVIII/Inf. 1 Add.).

17. The translation and the adoption of the report in two (2) languages would be done by correspondence after the session.

3. IOCARIBE MATTERS AND REPORTS

3.1. STATEMENT OF THE CHAIRPERSON

18. In accordance with rule of procedure 8.1(a), the IOCARIBE Chairperson delivered an oral statement on recent developments in the work of the Sub-Commission since the Seventeenth Session of IOCARIBE, 9 to 11 May, 2023 in Bogota, Colombia, and perspectives for the coming years.

19. The Chair of IOCARIBE addressed delegates, expressing gratitude to Brazil for hosting the SC-IOCARIBE-XVIII Session. The speech highlighted the urgency of ocean issues such as warming, acidification, and pollution, which threaten marine biodiversity and human health. Despite these challenges, the ocean offers hope for sustainable development and innovation. IOCARIBE is committed to transforming the Tropical Americas and Caribbean Region into a hub of ocean science aligned with the UN Decade of Ocean Science for Sustainable Development (2021-2030). Priorities include strengthening ocean observation systems, advancing early warning systems, fostering capacity development, promoting ocean literacy, and supporting a sustainable ocean economy. The statement emphasized the importance of equity, justice, and co-creation with affected communities. Sustainable Ocean Plans are essential for managing marine resources and unlocking the Blue Economy. IOCARIBE supports partnerships, empowers Early Career Ocean Professionals (ECOPs), and facilitates access to global science infrastructure. The growing number of National Ocean Decade Committees is fostering knowledge exchange and joint action. The Chair calls for science to serve people and the planet, integrating community wisdom and local knowledge. The Chair's full statement can be found in Annex III.

3.2. IOCARIBE SECRETARY'S REPORT ON THE WORK ACCOMPLISHED SINCE THE SEVENTEENTH SESSION AND BUDGET IMPLEMENTATION

20. The IOCARIBE Secretary, Dr Lorna Inniss, introduced this agenda item. She referred to the programme progress and to the implementation of decisions and recommendations during the 2023–2025 period, particularly those made at the Seventeenth Session of the Sub-Commission held in hybrid mode, 9-11 May 2023 in Bogota, Colombia.

21. Dr Inniss welcomed the forthcoming addition of Antigua and Barbuda as an IOC Member State and noted its importance to become a pilot country for sustainable ocean planning, requiring full support from local ministries and IOCARIBE. She highlighted the need for improved communication with Member States through Working Group meetings and annual reports. She emphasized the importance of annually updating designations and contact details of Member States with IOCARIBE, e.g. National Coordinating Bodies for Liaison with the IOC-UNESCO; National Commissions for UNESCO; and Permanent Delegations to UNESCO. She encouraged continued collaboration throughout the region on integrating Multi-Hazard Early Warning Systems (MHEWS) through the IOCARIBE GOOS WG Programme and associated projects. She highlighted the significant contributions of Caribbean Member States in the implementation of initiatives related to Ocean Literacy, particularly the establishment of Blue Schools across the region. She welcomed the new agreement with the United Nations Office for Project Services (UNOPS) to implement Marine Spatial Planning processes under the UNDP/GEF/UNOPS PROCARIBE+ Project. She concluded by stating the importance for IOCARIBE and its Member States to engage and actively participate in the UN Ocean Decade.

22. The representatives of seven Member States (Colombia, Brazil, Aruba, Mexico, Panama, Trinidad and Tobago, and Dominican Republic) took the floor.

23. Brazil informed the meeting of activities incorporating Youth and ECOPs into its National Decade Committee. Brazil added that the Decade is getting strong resonance in the Brazilian media, and therefore, it is essential to increase efforts in communication and raising awareness about the Decade and IOCARIBE initiatives.

24. Colombia reiterated its commitment to hosting the Sub-Commission in Cartagena, Colombia, and to continue supporting the various initiatives of IOCARIBE.

25. Aruba emphasized the need to establish more frequent contact with the National Commissions for UNESCO to enhance operational support and coordination.

26. Brazil noted the need to also establish more frequent contact with National Coordinating Bodies for Liaison with the IOC-UNESCO.

27. The Dominican Republic emphasized the need to update and clarify national representations across the different structures of IOCARIBE, e.g. IOCARIBE focal points, Working Groups and Task Teams points of contact, etc.

28. Panama emphasized the need for higher political coordination with National Ministries, e.g. Foreign Affairs Ministry, noting a decline in high-level coordination.

29. Mexico and Trinidad and Tobago agreed on the need to update designations and contact details of Member States with IOCARIBE.

4. STRATEGIC DEVELOPMENT

4.1. IOC STATUTES, FUNCTIONAL AUTONOMY AND IMPLEMENTATION OF THE IOC MEDIUM TERM STRATEGY

30. Mr Vidar Helgesen, IOC Executive Secretary and UNESCO ADG/IOC, provided a report on this item. He began by discussing the financial situation, noting that two years ago, the USA resumed payments to UNESCO, which increased the IOC's budget from 2% to 3%. This led to significant funding increases and heightened interest from member states in how the funds were utilized. Essential infrastructure repairs, particularly in observations and data, were prioritized, along with a focus on regional dimensions.

31. Mr Helgesen stated that this year, however, new uncertainties have emerged. The USA is reviewing its UNESCO membership, with conclusions expected by early May. Additionally, changes at NOAA, including the decommissioning of several databases and the University of Hawaii Sea Level Center's inability to maintain 20% of the Global Sea Level Observing System (GLOSS) stations, have created financial and infrastructure uncertainties. Consequently, UNESCO has implemented prudence measures, including a freeze on new and ongoing recruitments and a 30% budget reduction.

32. The IOC Executive Council decided to request that the Secretariat have an external assessment undertaken of IOC governance and management. That assessment has been undertaken and will be part of the working documents for the 33rd Session of the IOC General Assembly, 25 June to 3 July 2025, in Paris, France.

33. A key aspect of the assessment is the functional autonomy of IOC. The IOC statutes and Medium-Term Strategy emphasize the need for distinct governance and accountability. Membership is open to any UN member state, even if not part of UNESCO, ensuring diverse participation. The IOC Assembly is the principal organ, responsible for all functions unless otherwise stipulated or delegated. The approval of the budget and amendments to the statutes are a shared responsibility of both the IOC Assembly and UNESCO General Conference. All other functions are the responsibility of the IOC Assembly. The IOC Assembly can delegate authority to other organs of the Commission, e.g. the IOC Executive Council, the IOC Secretariat, or Regional Subsidiary Bodies (RSBs) such as IOCARIBE.

34. Documents are being prepared detailing the functional autonomy of IOC, which will be presented at the upcoming 33rd Session of the IOC Assembly, including a new IOC results framework based on the high-level objectives of the IOC Medium-Term Strategy.

35. The IOCARIBE Secretary inquired how IOCARIBE could adapt to a reduced budget over the next two years while continuing to sustain significant achievements.

36. The Executive Secretary of IOC highlighted that the vision is to provide products and services for decision making and ocean management at national and regional level. He also emphasized that financing delegations for meetings should be the responsibility of Member States, adhering to the rules and principles of multilateral collaboration. He noted that given the ongoing processes in governance management, planning, and budget, which will be finalized at the 33rd Session of the IOC Assembly, and the current uncertainties, it is not practical to address budget issues on item 8.1 of the SC-IOCARIBE-XVIII. He concluded by recommending that subsequent Intergovernmental Sessions of IOCARIBE be held during the

third quarter of the year prior to an IOC Assembly to better align with the planning and budgeting cycle of IOC.

4.2. SESSION ON IOC AND THE FUTURE OF THE OCEAN

37. Ms Alison Clausen, Deputy Global Coordinator of the UN Decade of Ocean Science for Sustainable Development (2021-2030), introduced this item. She reviewed the rationale and structure for this process as documented in IOC Resolution EC-57/2 Governance, Programming and Budgeting Matters of the Commission. She reminded Member States that the first phase of the consultation process involves a Member States survey to which 65 responses have been received, interviews with key informants and regional workshops, including the IOCARIBE Technical Science Meeting held prior to the Intergovernmental Session. Ms Clausen reported on the key initial findings of the consultation process to date and highlighted the importance of this work to inform IOC programming and budgeting in the long-term, and the development of the next iteration of the IOC Medium-Term Strategy.

38. During the Technical Science Meeting held 22 April 2025, prior to the Intergovernmental Session, IOCARIBE Member States engaged in focus group discussions to review activities relevant to the role of IOC in assisting Member States and other stakeholders, including identifying gaps and needs in IOC programmes, to optimally facilitate current and emerging activities in science-based sustainable ocean planning, ocean science support to the implementation of relevant UN conventions and frameworks, and the development of a sustainable ocean economy.

39. Initial results of the focus group discussions were presented including: 1. A sustainable ocean economy is key for the region but data and knowledge gaps limit decision-making; 2. Knowledge on ecosystem restoration is inadequate despite the role of restored ecosystems for economic benefits; 3. The lack of interoperable datasets limits integrated management and action; 4. Improved accessibility to global datasets, especially for SIDS, and capacity development are needed; 5. Strong regional mechanisms for data coordination and governance are needed; 6. Sustained support is needed for monitoring and observations programmes, including equipment and maintenance; 7. Improved "upstream ocean literacy" is needed to better understand interactions across the land-sea interface; 8. Increasing the ocean literacy of decision-makers is essential; 9. Better coordination among MEAs and global initiatives, along with guidance on multi-use data streamlining, would bring added value; and 10. More analysis is needed to align global commitments with regional priorities through established mechanisms.

40. The results of the first phase of the consultation will be presented at the 33rd Session of the IOC Assembly and scoping of Phase 2 consultations will take place in 2025 – 2026.

4.3. DRAFT STRATEGY ON SUSTAINABLE OCEAN PLANNING AND MANAGEMENT

41. Ms Fanny Douvere, IOC UNESCO Senior Project Officer, introduced this agenda item. At its 32nd session, the IOC Assembly first took note of the scope and process for developing the IOC Strategy on Sustainable Ocean Planning and Management (SOPM) for the 2024-2030 period through document IOC/A-32/4.7.Doc(1), and requested the IOC Secretariat to collect input from Member States, IOC programmes and technical bodies, and other relevant stakeholders, and to present a revised document to the IOC Executive Council at its 57th session. The draft IOC-SOPM Strategy was presented to the 57th session of the IOC Executive Council, through document IOC/EC-57/4.3.DOC(1).Rev, based on responses to a needs assessment survey requested through IOC Circular Letter 2968. Inputs received were synthesized in document IOC/INF-1537 and its addendum and two (2) online consultation meetings were organized with IOC Member States in May 2024.

42. The IOC Executive Council through decision EC-57/4.3 instructed the establishment of the IOC Working Group on SOPM with the task inter alia to finalize the draft IOC-SOPM

Strategy and a supporting Implementation Plan. The Working Group met twice, online on 6 February 2025 and in-person from 4-6 March 2025, and provided feedback through two (2) additional consultation rounds. A third online meeting was organized on 10 April 2025 where the IOC-SOPM Strategy and Implementation Plan was finalized by the working group. Given the need to establish a mechanism to track and guide the implementation of the Strategy during the 2025-2030 period, Terms of Reference for the continuation of the IOC Working Group on SOPM have been drafted for consideration by the IOC Assembly.

4.4. DRAFT IMPLEMENTATION PLAN FOR IOC CAPACITY DEVELOPMENT STRATEGY 2023-2030

43. Ms Johanna Diwa-Acallar, Deputy Coordinator of the IOC UNESCO's Capacity Development Global Coordination unit, presented this agenda item. She recalled that at its 32nd Session, the IOC Assembly adopted the IOC Capacity Development (CD) Strategy 2023-2030 (Decision A-32/4.3; IOC/INF-1433) and its Outreach and Communications Plan (IOC-32/4.3.Doc(2)). She reported on the outcomes of the sixth session of the IOC Group of Experts on Capacity Development (GE-CD), held 22-24 October 2024 in Oostende, Belgium. To deliver the tasks under the new TOR of the Group (Annex Decision EC57/4.6), a Task Team and Working Group were established to develop a needs assessment and implementation plan, respectively, for the IOC CD Strategy 2023-2030 to be presented to the 33rd Session of the IOC Assembly in June 2025.

44. Prof Elva Escobar, Chair of the IOCARIBE Capacity Development Working Group, joined the Task Team on Needs Assessment as representative of Dr Lorna Inniss of the IOCARIBE Secretariat. Since the adoption of the IOC CD Strategy in 2023, the IOC CD Secretariat has been working with IOC's Regional Subsidiary Bodies (RSBs) on mapping the priority needs of the regions. IOCAFRICA and IOCARIBE provided inputs in the discussions during the sixth session of the GE-CD as members of the Task Team. The new IOCINDIO Head, upon the start of his engagement from January 2025, began close consultation with the IOC CD Secretariat and provided timely inputs to the Implementation Plan.

45. The Task Team convened in nine (9) online meetings between November 2024 and January 2025 to develop a methodology to capture the regional priority CD needs to be incorporated in the CD Strategy Implementation Plan. The Task Team developed a template for initial RSB consultations to inform a full needs assessment with Member States in the next IOC Biennial CD Survey.

46. The draft Implementation Plan (IP) aims to translate the IOC CD Strategy 2023-2030 into concrete, actionable steps that address the specific needs and challenges of regions and Member States, aligning with the objectives of the Ocean Decade. The IP will provide a structured pathway to achieving these objectives, ensuring that the Strategy translates into measurable, region-specific actions that support the global mission of sustainable ocean science development. It will also articulate in greater detail how the actions listed in the Strategy will be implemented and how progress and effectiveness will be monitored.

47. Prof Elva Escobar, Chair of the IOCARIBE CD Working Group, highlighted the need for capacity development onboard research vessels at sea for local scientists studying deepsea, pelagic and mesopelagic ecosystems in the region, and raised the issue of funding for capacity development projects in the region endorsed by the Ocean Decade.

48. Ms Alison Clausen, representing IOC, responded that capacity development could be supported through seed funding from the Flanders Foundation and the Ocean Teacher Global Academy (OTGA). She offered to connect stakeholders with the Ocean Decade Powerhouse to explore further funding opportunities.

49. Mr Edgard Cabrera, as a member of the UN Decade Task Force for the TAC Region, highlighted the creation of a new group for Early Career Ocean Professionals (ECOPs) within the Secretariat and recommended organizing another task force meeting to review the implementation of the Ocean Decade Roadmap in the TAC region.

5. IOCARIBE CONTRIBUTION TO UN DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT (2021–2030)

5.1. UN OCEAN DECADE: GLOBAL UPDATE

50. Ms Alison Clausen, Deputy Global Coordinator of the UN Ocean Decade, provided an update on the Ocean Decade's implementation at the global level. She noted that the Decade is at the mid-point of its implementation and that the portfolio of Decade Actions is continuing to grow rapidly with strong thematic diversity across all Ocean Decade Challenges. She reminded the session of the importance of the priorities identified in the Barcelona Statement emerging from the 2024 Ocean Decade Conference and the accompanying report: 'Ambition, Action, Impact: a pathway for the Ocean Decade to 2030'. She underscored the importance of the work of the Decade Advisory Board and highlighted the emergence of a growing network of regional and thematic decentralized coordination structures to support the work of the Decade Coordination Unit. She also recalled that 40 National Decade Committees are now operational and that a specific procedure exists to support SIDS Member States to nominate individual Ocean Decade focal points. She reminded Member States that various Decade Actions and coordination structures are led by IOC and that, if adequately resourced, these initiatives have the potential to substantively contribute to IOC's sustained growth, positioning and impact. She also highlighted the importance of the mid-term evaluation process carried out over the last 12 months and IOC's management response to the evaluation that sets out the broad direction for the Decade's delivery over the next 5 years. She emphasized the urgent need for greater investment and engagement by Member States to support the effective implementation of the management response, including both the IOC's central coordination efforts and its decentralized structures, as well as the delivery of Decade Actions.

5.2. UN OCEAN DECADE REGIONAL IMPLEMENTATION

5.2.1. TASK FORCE FOR THE TAC REGION

51. Mrs Loreto Duffy-Mayers, representative of Barbados, provided a report on this agenda item. Since its establishment, the Task Force for the Tropical Americas and Caribbean (TAC) Region has led a robust multiyear co-design process involving thousands of stakeholders, culminating in the publication of the Ocean Decade Roadmap for the Tropical Americas and Caribbean. The region also launched a TAC Ocean Decade Network and is finalizing a resource mobilization plan to support continued implementation.

5.2.2. ROADMAP FOR IMPLEMENTATION IN THE TAC REGION

52. Mrs Duffy-Mayers presented this agenda item. The Ocean Decade Roadmap for the TAC Region was published in November 2024, following the TAC Task Force's co-design process and validated during a Task Force meeting in Costa Rica in June 2024. It outlines a regional framework for inclusive and science-driven action aligned with ten strategic priorities, including marine pollution reduction, climate adaptation, ocean literacy, and small-scale fisheries. The Roadmap emphasizes national implementation, enhanced collaboration, and the establishment of enabling environments through capacity development, policy alignment, and resource mobilization. The Roadmap ensures alignment with global Ocean Decade goals while addressing regional needs, especially for SIDS and vulnerable coastal communities, offering concrete actions and mechanisms to strengthen participation and enhance benefits from the Ocean Decade.

53. Colombia provided the following written record of their plenary intervention on this agenda item.

Colombia welcomes the progress made by IOCARIBE and stakeholders in creating the Roadmap for implementing the Decade of Ocean Science in the TAC Region.

Colombia will continue to participate in and support national and regional efforts in ocean

science through entities such as INVEMAR and DIMAR. Furthermore, we reaffirm our commitment to the observation of coastal dynamics, data management and consolidation, knowledge dissemination, and capacity development on ocean issues to strengthen marine-coastal governance.

Finally, Colombia reaffirms its commitment to promoting IOCARIBE programs in line with the Roadmap and will look forward to the next step, which will include developing a plan to mobilize resources and implement the planned actions.

5.2.3. UN OCEAN DECADE COORDINATION OFFICE FOR THE TASK FORCE IN THE TAC REGION UPDATE

54. Dr Lorna Inniss, IOCARIBE Secretary, presented this agenda item and introduced Dr Marko Tosic, IOCARIBE Programme Specialist, as the new Head of the Decade Coordination Office.

55. Dr Inniss reported that there are currently 120 endorsed Decade Actions in the TAC Region, 108 of which are led by TAC-based institutions. She further highlighted Decade Actions in the region that are coordinated by IOCARIBE, such as the TAC Ocean Observing and Forecasting System (OOFS), Integrated Coastal Hazard Early Warning System (iCHEWS), and Ocean Literacy.

56. Dr Inniss described the different regional coordination structures in place as part of the Ocean Decade, including the recently activated Decade Coordination Office, TAC Task Force, National Decade Committees, Ocean Decade Focal Points, and the TAC Ocean Decade Network. Recognizing the limited capacity of some Small Island Developing States (SIDS) in the region to establish full National Decade Committees, Dr Inniss reiterated that a mechanism has been introduced to allow countries to nominate individual Ocean Decade Focal Points to a Regional Decade Committee (RDC).

57. Ms Innis concluded by stating the next steps of the TAC Decade Coordination Office, including the preparation of a progress assessment of endorsed projects, a Roadmap implementation plan, and a resource mobilization plan.

58. The representatives of seven (7) Member States took the floor.

59. Colombia reaffirmed the country's commitment to the Decade, marine governance, and inter-institutional coordination, and noted Colombia's active role in National Decade Committees and its efforts to integrate governance and science.

60. Brazil welcomed the opportunity to host the 2027 Ocean Data Conference, highlighted the importance of Ms Alison Clausen's statements regarding the Ocean Decade, and reaffirmed Brazil's support of Decade initiatives.

61. Venezuela praised IOCARIBE's achievements despite limited staff, confirmed the Ministry of Environment's commitment to Decade initiatives, and expressed interest in following up with Dr Tosic on the Decade endorsed project: TAC Pollutant Observatory.

62. Guatemala highlighted its recent engagement in the Ocean Decade and noted the challenges of frequent institutional turnover, which affects national coordination efforts.

63. Panama reiterated the importance of regional cooperation and expressed support for Dr Tosic's leadership of the TAC DCO.

64. Aruba emphasized the importance of direct engagement between IOCARIBE and national commissions.

65. The Dominican Republic requested clearer guidance for participation in the Ocean Decade's different regional coordination structures and emphasized the need for improved national structures and representation.

6. REVIEW OF REGIONAL PROGRAMMES, PROJECTS, WORKING GROUPS AND FUTURE DIRECTIONS

6.1. OCEAN RESEARCH

6.1.1. Harmful Algal Blooms (HAB)

66. Prof Ernesto Mancera, Vice-Chair of the IOCARIBE-ANCA Working Group, provided a report on this item. During the intersessional period, the working group achieved several goals proposed at SC-IOCARIBE-XVII. Research on epiphytic toxic dinoflagellates was strengthened, and progress was made in HAB early warning systems. However, challenges included achieving greater participation from Member States and strengthening training and outreach activities particularly in the tourism and public health sectors. The development of data and information integration projects is essential for enhancing capabilities, and there are opportunities to enhance the dissemination of IOCARIBE-ANCA activities globally through platforms like Harmful Algae News (HAN). The IOC Training Course and Identification Qualification in Harmful Marine Microalgae 2023 involved four (4) countries: Cuba, El Salvador, Mexico, and Venezuela. The RLA7025 2025 initiative led by IAEA expanded to include eight (8) countries: Argentina, Colombia, Jamaica, Costa Rica, Uruguay, Brazil, Guatemala, and El Salvador (RLA7028). A key goal was to expand the ANCA network, successfully establishing focal points for Trinidad & Tobago and Puerto Rico.

67. The representative of Colombia chose to provide record of its plenary intervention.

Colombia wishes to express its gratitude and congratulations for the achievements within the framework of the IOCARIBE-ANCA program, which are the result of joint efforts and regional collaboration. In this regard, we reiterate our firm commitment to contributing to the strengthening of this initiative, supported by the scientific expertise provided by Dr. Ernesto Mancera, Colombia's representative to this group and Vice-Chair of IOCARIBE-ANCA. We also cordially call on other countries to continue working enthusiastically and dedicatedly on the IOCARIBE-ANCA program, with a view to further enhancing its benefits for the region.

Furthermore, we wish to emphasize the strategic importance of HAB/ANCA for our region, and therefore, we consider it essential to explore and promote increased funding for this initiative, given that with strengthened financial support, we can ensure the sustainability and expansion of its activities for the benefit of all member states and regional development in general.

68. Panama reiterated its support for the ANCA group, raised concerns about the salinization impacts of shipping traffic crossing the Panama Canal, and requested any reports on harmful algal blooms.

69. Mexico noted that IOCARIBE had distributed materials on HABs in 2023 and confirmed that Mexico still has a stock of these materials, which can be provided through the focal point office.

6.1.2. Ocean Acidification

70. Dr Lorna Inniss, IOCARIBE Secretary, presented this agenda item on behalf of the Ocean Science Section (OSS), referring to the ocean acidification report of the SC-IOCARIBE XVIII provided by the OSS. It was noted that the Global Ocean Acidification Observing Network (GOA-ON) has a Caribbean Hub that was established in 2023 and comprises of 28 members from 16 countries. It was also noted that in relation to the Sustainable Development Goal indicator 14.3.1, average marine acidity (pH) was measured at an agreed set of representative sampling stations with IOCARIBE countries submitting national data to UNESCO-IOC (as the custodian for the indicator) including Brazil, Colombia, Cuba and Mexico.

71. The representative from the USA took the floor. The USA expressed full agreement with the recommendations presented, acknowledged the importance of ocean acidification,

and noted that NOAA would connect relevant experts with the appropriate stakeholders.

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

6.2.1. IOCARIBE GOOS

72. Dr Lorna Inniss, IOCARIBE Secretary, introduced this agenda item. She recalled that during SC-IOCARIBE XVII, Mr John Cortinas of the USA was named IOCARIBE GOOS Coordinator. As Mr Cortinas has since retired, IOCARIBE is currently seeking a new coordinator for IOCARIBE GOOS. It was also stated that the Terms of Reference for the IOCARIBE GOOS Working Group were complete and currently under review.

73. Mr Douglas Wilson, Coordinator of the TAC Ocean Observing and Forecasting System (OOFS) Ocean Decade Project, presented the results of GOOS implementation during the biennium. He discussed the achievements of the last year, including the first official Working Group meeting on 8 November 2024 and the formation of a new governance structure. He highlighted the outcomes of the IOCARIBE GOOS Workshop held during the GOOS Observations Coordination Group (OCG) meeting in Brest, France from 7-10 April 2025, where participants gained input from global leaders of observation networks and explored how the GOOS OCG could provide expert advice on best practices for implementation, mobilization, and technical guidance to aid in the development of the IOCARIBE-GOOS Work Plan and 2025+ goals. The work plan will be drafted and published for the coming biennium.

74. Mr Douglas Wilson emphasized the need to identify National GOOS Focal Points for Member States that are not yet represented in the IOCARIBE-GOOS Working Group. He underscored the importance of increasing capacities for ocean observing in the Caribbean to improve the prediction of hurricanes and severe storms and highlighted the need to explore how to address issues associated with Ocean Observing Platforms in National Jurisdictions in the TAC. He also supported the GlobalCoast/CoastPredict proposal for a UN Decade Programme, recognized the benefit of partnering with the Fishing Vessel Ocean Observing Network (FVON), encouraged nominations for a new IOCARIBE-GOOS Program Coordinator.

75. Prof Nadia Pinardi, Director of Decade Collaborative Center for Coastal Resilience, presented regional activities proposed through the CoastPredict Ocean Decade Programme, with a focus on the GlobalCoast framework. Designed to support coastal resilience, the proposed program aims to equip decision-makers and communities with integrated observing and forecasting systems for managing risk and planning adaptation. The GlobalCoast network currently includes 130 pilot sites across 66 countries, with six (6) pilot sites launched in five (5) Caribbean nations (Barbados, Colombia, the Dominican Republic, Mexico, and Trinidad & Tobago) through an Adaptation Fund proposal. The project promotes regional capacity development, coastal hazard assessment, early warning systems, climate downscaling, decision support tools, and training. Emphasis was placed on aligning with regional priorities, fostering partnerships, and strengthening governance mechanisms in support of sustainable coastal development.

76. Mr Cooper Van Vranken presented on the Fishing Vessel Ocean Observing Network (FVON), an official emerging network of GOOS and action of the CoastPredict UN Decade Programme. FVON's innovative approach of collecting subsurface data from fishing vessels is particularly well suited to the Caribbean, not only because it addresses key data gaps, but also because vessel-based observations offer a practical way to gather data in the region's extensive shelf areas and around its many small islands, which are often difficult to monitor using traditional observing methods. This coastal data can significantly improve forecasts of hurricane intensification near landfall, a critical need for many Member States and closely aligned with the "Early Warnings For All" initiative. These data would also support climate resilience and the sustainable exploitation of fisheries. Given its cost-effectiveness, this approach is both accessible and deployable at scales which have previously been too expensive, offering a potential paradigm shift in ocean forecasting, sustainable fishing, and

the data-driven blue economy.

77. Lorna Inniss began the questions session with the acknowledgement that IOCARIBE-GOOS is IOCARIBE's foundational program and therefore of high priority.

78. Mr Oduber of Aruba inquired whether FVON employs a standard definition for the term "fishing vessels" and requested clarification on the process by which fishermen upload their data to the network. Mr Van Vranken replied that FVON does not use a standardized definition of "fishing vessels" and explained that the sensors employed by FVON are fully automated, transmitting the collected data immediately upon retrieval from the water.

79. The representative of USA chose to provide a written record of its plenary intervention: The United States thanks Doug Wilson for his presentation and the GOOS Director Dr. Post, and the entire GOOS Management Team for their efforts this past year. The United States views the collection of ocean observations as critical to ensuring a sustained Global Ocean Observing System, and essential in providing the information society needs to make informed decisions. The United States will advocate for a work plan that prioritizes increased ocean observations for hurricane forecasting and coastal inundation. We look forward to having more conversations on how to best support the work on IOCARIBE GOOS.

80. Mexico noted that it has many fishing cooperatives, with the greatest concentration of vessels in the Pacific, extending toward the Atlantic, particularly in the Caribbean and the Sierra regions. They raised questions about the feasibility of involving these cooperatives in the FVON observation platform. Specifically, they inquired about who would provide the necessary instruments and ensure integration of the collected data into the NOAA database. They also noted challenges due to the small size and range of many Mexican fishing vessels. Mexico expressed interest in potentially participating in the initiative and sought clarification on how such collaboration could be practically implemented.

81. Mr Van Vranken explained that equipment needs depend on the parameters being measured. For basic temperature profiling, his group can supply the necessary instruments directly, as they serve as the importer. For other parameters, like dissolved oxygen, equipment may come from French or American companies. He emphasized that they could work with partners to source the appropriate tools for their data collection needs. He also noted that collaborations with fishers can take various forms, and mentioned pending small-scale project proposals in Mexico, including in Magdalena Bay, and previous work with Guimex, a sardine fishing fleet based in Guaymas.

82. The representative from Mexico asked who to contact for support in setting up the necessary technology and sensors once their internal consultation process is complete. They noted that while there are many universities, fishing centers, and cooperatives in the Pacific region, such institutions are less common in the Caribbean. They requested a contact person to coordinate efforts following discussions with CONAPESCA and SIMARES, the national marine authority. They also asked Prof Pinardi what is needed to implement the forecast systems in the Pacific with regards to the proposed CoastPredict Ocean Decade Programme.

83. Prof Nadia Pinardi responded that two (2) pilot sites have been defined on Mexico's Pacific coast and that efforts have begun to identify a site in the Caribbean, focusing on the Yucatán Peninsula due to its proximity to other islands and nations.

84. Mexico announced that it had appointed its focal points for GOOS (Octavio Gomez) and IODE (Migel Uribe), both in attendance at SC-IOCARIBE-XVIII.

85. Mr Fabian Hinds (Barbados) inquired about the extent of assistance available for tsunami hazard mapping. He recalled a previous experience during the Tsunami Ready recognition process, in which support was provided to develop tsunami evacuation zones in collaboration with local GIS specialists. However, they were required to supply updated bathymetric and topographic data. He asked whether the proposed initiative could support Small Island Developing States or Least Developed Countries that lack sufficient bathymetric

or topographic data. Specifically, he wanted to know how far such assistance could go in helping these countries develop tsunami hazard or evacuation maps.

86. Prof Pinardi explained that updated bathymetry is essential, as coastal changes, such as erosion, can make data outdated within four (4) to five (5) years, leading to inaccurate results. This is why pilot sites are important: they allow for testing and refining best practices and standards. The initiative will begin with 10 sites in the Caribbean to assess specific needs, with bathymetry being a common requirement. Modeling will include river–coast interactions, supported by various observations, including data from fishing vessel-based observing systems, with more observation methods to follow.

87. Colombia noted that their country is benefiting from the inclusion of pilot sites. They emphasized that all available capacities from DIMAR, Colombia's maritime authority, will be utilized to provide high-quality data and information. With DIMAR's Hydrographic and Oceanographic Research Center based in Cartagena, they have access to extensive datasets, including long-term gauge records. They also highlighted the valuable research capabilities of DIMAR's vessels as a potential contribution to the program. Colombia expressed strong support for joining the network and gratitude for the benefits received through related initiatives, such as PROCARIBE+.

88. Costa Rica expressed interest in participating in the proposed initiative and stated they would consult with Silvia Chacón, their GOOS representative, and coordinate with COPESCA, the national fishing authority. While their Caribbean fishing fleet is small, they noted that local organizations may be able to support the effort.

89. The Secretariat noted that Silvia Chacón would speak later in the session and highlighted the goal of strengthening coordination between the ICG and IOCARIBE. A question was directed to Antigua and Barbuda regarding their potential use of FVON and the involvement of local fishing vessels in monitoring ocean surface temperature, as well as the willingness of their fishing industry to participate.

90. Antigua and Barbuda highlighted a successful program involving fishers in testing biodegradable fish traps, noting that this experience would facilitate an easy transition to participating in the FVON initiative. They emphasized the wide distribution of engaged fishers, the advanced technological capabilities of local vessels, and the potential to use existing equipment for data collection.

91. Trinidad and Tobago emphasized the critical importance of multi-hazard early warning systems, particularly considering coastal erosion and intense shipping and port activity. They identified limited local capacity on small islands to collect and utilize data for modeling as a key challenge. They stressed that sustainability requires both knowledge exchange and long-term institutional capacity building. Without institutional continuity and capacity for in-house equipment maintenance, project-acquired equipment often becomes unused after project completion. Ensuring lasting capacity beyond individual projects is therefore essential.

92. Guatemala expressed interest in participating in the proposed initiative and noted that they will coordinate with their fisheries department.

93. Dr Lorna Inniss, IOCARIBE Secretary, summarized the outcomes of the IOCARIBE-GOOS session, emphasizing the need for national endorsements for the CoastPredict proposal to the Adaptation Fund and the importance of facilitating scientific clearances for ocean observations within Exclusive Economic Zones (EEZs). She acknowledged Colombia's offer of expertise, encouraged Member States to confirm participation in CoastPredict and/or the FVON program by obtaining letters of endorsement from their National Designated Authority (NDA) for the Climate Adaptation Fund, and suggested that Costa Rica nominate Silvia Chacón to the IOCARIBE-GOOS Working Group. 94. Dr Inniss noted the serious challenges faced by Small Island Developing States in affording bathymetric measurements and maintaining equipment after projects end. Drawing attention to Mr Doug Wilson's presentation on the global sensor network, she stressed that the lack of consistent clearance for ocean science in EEZs is hindering the region's capacity to strengthen early warning systems. While some countries support these efforts, many do not respond to requests, resulting in critical data gaps.

95. Member States were urged to begin consultations with national authorities to address this issue and to increase technical capacity to support ocean observations. The Secretariat also called for more national experts and encouraged follow-up from countries that had expressed interest in hosting pilot sites but had not yet engaged further.

96. Mr Edgard Cabrera, TAC Task Force member, acknowledged the insightful presentations on GOOS and CoastPredict and expressed support for their implementation and long-term sustainability. He noted that these initiatives are integral to the UN Ocean Decade's TAC efforts, emphasizing the importance of co-design, effective implementation, and region-specific solutions, as highlighted by Prof Pinardi. He congratulated the panelists and expressed hope for endorsement and continued support from IOCARIBE-XVIII.

6.2.2. International Oceanographic Data and Information Exchange (IODE)

97. Ms Paula Sierra, Co-Chair of IODE, presented this agenda item. The IODE-28 Committee noted the request to support the IOCARIBE region in the development and implementation of a plan for Caribbean SIDS and island territories to maximize their benefits from, and contributions to, ocean data and information management, using a value chain approach.

98. The IODE-28 Committee welcomed the request to support the integration and use of data and information from national projects within IOCARIBE Member States, as well as from the Secretariat's projects and programs, focused on addressing the region's needs.

99. The IODE-28 Committee agreed to the request to explore options for further cooperation beyond the Ocean Teacher Global Academy (OTGA) and IOC's Ocean Data Information System (ODIS) during the 2026-2027 biennium, including the development of a regional Ocean Biodiversity Information System (OBIS) network.

100. The IODE-28 Committee invited IOCARIBE Member States to establish National Oceanographic Data Centres (NODCs) or Associate Data Units (ADUs), and to refresh their data and information management capabilities. It was recognized that for SIDS, establishing fully fledged NODCs may not be possible and that alternatively they could establish small ADUs or agreements for increased collaboration with each other. The Session recognized that Ocean Teacher Global Academy (OTGA) can assist in capacity development and continuous professional development.

101. The representative of Colombia chose to provide record of its plenary intervention:

Colombia wishes to submit to Member States a proposal or decision during the intersessional period to promote more effective coordination between GOOS and IODE in the Caribbean region, in line with the agreements adopted at the IODE-28 Committee Session held in Santa Marta, Colombia, in March 2025. Colombia recognizes the importance of strengthening regional collaboration to maximize the benefits of ocean data and information sharing in the context of ocean observation, through the implementation of a value chain approach and the development of a regional strategy that responds to the specific needs of our Member States.

In this regard, Colombia supports the exploration of new cooperation options beyond OTGA and ODIS during the 2026-2027 biennium, endorsing the inclusion of a regional strategy focused on the Ocean Biodiversity Information System (OBIS). We recognize that the implementation and coordination of global programs at the regional level can present challenges, but we consider it essential to tailor these initiatives to the specific needs and

priorities of IOCARIBE Member States. This will ensure that the information collected and shared is relevant and contributes to effective decisions in coastal and marine management.

Colombia also expresses its concern about the continuity and leadership of the IODE Programme, particularly regarding who will succeed Dr Peter Pissierssens, whose leadership has been instrumental in driving the progress of this Programme. We believe that a clear and well-defined transition in this role is essential to maintain the momentum of these initiatives, and we propose that this issue be addressed at the 33rd Session of the IOC Assembly, to be held in June 2025.

102. The Chair encouraged the call for more NODCs or ADUs and opened the floor to questions.

103. Brazil highlighted GOOS Brazil, an initiative under the Sectoral Plan for Marine Resources, now in its 11th edition. Coordinated by the Directorate of Hydrography and Navigation of the Brazilian Navy, it operates under the Interministerial Commission for Marine Resources. GOOS Brazil has been actively involved in OceanOPS and the Southern Ocean Observing System (SOOS). As member of GOOS Brazil, the speaker expressed Brazil's commitment to fostering enhanced cooperation with IOCARIBE-GOOS at the initiative's upcoming Executive Committee meeting.

104. The Dominican Republic reaffirmed its commitment to the Caribbean Marine Observation System, highlighting its ongoing efforts to strengthen environmental information management through a dedicated ministerial unit. They acknowledged the value of the collaboration and support received and is committed to full participation in the system. Additionally, the establishment of a new marine protected area near Beata Island, aligned with Colombia's initiative, offers a promising opportunity for regional cooperation and data sharing.

105. Mexico expressed gratitude to Ms Paula Sierra and her team for their support, highlighting efforts to reactivate SIBER (Southwest Indian Ocean Biogeochemical Ecosystem Research) in collaboration with Colombia. They noted Argentina's increasing involvement in data generation and sharing and Mexico's plans to support this reactivation through two (2) national monitoring systems, SARCAST and PETROTEL, in collaboration with regional countries. Mexico also announced the launch of a master's program in Operational Oceanography next year, and inquired about strategies to access resources for sustaining long-term monitoring systems.

106. Venezuela announced the appointment of a coordinator for the reactivation of its longstanding NODC and that efforts are underway to revitalize the center, enhance its capabilities, and integrate new datasets. The country is working to reconnect with international data networks, particularly with Mexico, and is establishing ocean observation nodes at national universities. Venezuela also emphasized its involvement in mentorship and training efforts, highlighting the importance of recovering and documenting Caribbean data for regional initiatives.

107. Dr Lorna Inniss expressed appreciation to the IODE Co-Chair, Ms Paula Sierra, INVEMAR, and Colombia for their strong support of IOCARIBE's data and information efforts. She acknowledged the challenges repeatedly raised during the technical science meeting and noted the recommendation for greater integration between GOOS and IODE in the region.

108. The IOCARIBE Secretariat requested Member State input on how to best achieve integration between GOOS and IODE in the region and proposed exploring the creation of a joint GOOS–IODE working group to strengthen coordination on ocean observations, data and information, ensuring alignment with existing structures like the PROCARIBE+ Marine Data Infrastructure Group.

109. A tribute was paid to Peter Pissierssens for his decades of outstanding service to IODE. Dr Inniss shared a personal memory of being inspired by Mr Pissierssens's work on the Africa Marine Atlas and advocating for a Caribbean Marine Atlas, which later materialized. She acknowledged his foundational contributions to global ocean data and information systems and expressed gratitude on behalf of the IOCARIBE Sub-Commission, noting hopes

to continue advancing his legacy during his retirement.

110. It was announced that Dr Joanna Post, head of GOOS, has been designated as interim head of IODE until 2026, due to a hiring freeze at UNESCO. Recognizing the difficulty of managing both major programs simultaneously, the need to strengthen regional governance structures for GOOS and IODE was emphasized to sustain momentum and ensure effective coordination. Member States were reminded to submit nominations of experts and focal points to support these efforts, with an invitation extended to Ms Paula Sierra for additional suggestions to improve integration between the two (2) programs.

111. Colombia suggested that IOCARIBE lead efforts to link GOOS, IODE, and other UNESCO programs across the Caribbean and Pacific regions. Two (2) concrete actions were proposed:

- i. Convene activity and program leaders to map synergies and integration points.
- ii. Develop targeted training for decision-makers to highlight the role of ocean data in meeting obligations under international conventions (e.g., CBD, UNFCCC, Ramsar).

6.2.3. ADAPT PROJECT

112. Ms Carolina Garcia Valencia of INVEMAR, Colombia, presented this agenda item on behalf of Dr Ana Carolina Peralta. ADAPT is a proposal aimed at providing training and supporting the collaborative development of guidelines on ocean observation and best practices, using the Caribbean as a pilot region. It is funded by the Norwegian Agency for Development Cooperation (NORAD) and is being developed by the Ocean Best Practices team in collaboration with relevant experts, OTGA, INVEMAR, and IOCARIBE.

113. The ADAPT initiative is conducting in-person workshops and creating educational resources to address the need for capacity development in ocean observation within the Caribbean region. These experiences will be used to develop an online training course that will be accessible to a wider audience. The project's goal is to encourage the adoption and adaptation of best practices and methodologies for ocean observation in regions with limited infrastructure, tailored to their capabilities and regional context, while maintaining interoperability.

114. The Ocean Best Practices System (OBPS) Capacity Development team aimed to address data gaps in best practices for ocean observation by developing a training program in collaboration with local and regional institutions. The ADAPT training scheme was built in three phases: A Preliminary Assessment (phase 1), in which an online survey gathered inputs from project partners and regional stakeholders, receiving 50 responses from 18 countries and 6 organization types. The survey highlighted interest in marine biodiversity data and management, focusing on best practices for field data collection. A training content outline led to a pilot training program (phase 2); and an Expert Advisor Group (phase 3) in which professionals with expertise in relevant topics were invited to co-develop the training content and materials, in collaboration with OBPS ambassadors and local partners such as INVEMAR.

115. The first ADAPT workshop in Spanish will take place at INVEMAR for 28 April to 2 May 2025, with 16 students from 7 countries, and three trainers.

116. The Dominican Republic expressed its anticipation for the training, particularly in ecosystem monitoring. They stated that a major monitoring project, supported by French funding and involving multiple institutions, is currently underway, and that efforts are being made to establish a robust monitoring network underpinned by a comprehensive curriculum. The country is optimistic about the outcomes of this collaboration and extends its full support for any required engagement.

117. Dr Lorna Inniss noted that a regional node is in place, and IOCARIBE is committed to disseminating information about these courses through its networks and focal points. IOCARIBE will collaborate with INVEMAR to promote these resources, which include several courses aligned with the capacity development needs identified by Member States.

118. Noting 30% funding decreases in the UNESCO budget, the Norwegian funding could help support the development of the course for English speakers; however, additional in-kind contributions from a partner organization may be needed to complete the English version.

119. Mr Chris Corbin, UNEP CEP, thanked INVEMAR for their strong technical support to the Cartagena Convention Secretariat, highlighting their key role in regional capacity development and their contributions through the open-ended working group on monitoring and assessment. INVEMAR, along with the Institute of Marine Affairs in Trinidad and Tobago, were recognized as regional technical champions.

120. UNEP CEP also emphasized the importance of capacity development, noting it depends on external project funding. They proposed a follow-up discussion to explore potential funding opportunities to support capacity development in English-speaking countries, aligned with project outputs and available resources.

121. Ms Paula Sierra emphasized the importance of tailoring capacity development efforts to regional needs, noting that customized training courses, such as those developed under the ADAPT project, can be created when necessary. She highlighted the availability of regional experts, including from Mexico, Costa Rica, and Trinidad & Tobago, who could serve as mentors or trainers. Funding opportunities tied to existing projects should be explored to support training in both English and Spanish, ensuring alignment with national and regional priorities.

122. Ms Sierra offered the support of the IOC Regional Training Centre at INVEMAR for developing and delivering courses, with connections to 17 global centers that can contribute multilingual expertise. Emphasizing inclusivity, she noted the importance of offering training in English, Spanish, and French.

123. The IOCARIBE Secretary reaffirmed the Sub-Commission's commitment to establishing a trilingual Secretariat and noted that two (2) recently appointed staff members are proficient in English, Spanish, and French, enhancing the Secretariat's ability to promote linguistic inclusivity.

6.2.4. ICG CARIBE EWS

124. Ms Silvia Chacon Barrantes presented this agenda item on behalf of Mr Gerard Metayer, Chair of the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS), and shared the report of ICG/CARIBE-EWS XVII (6-9 May 2024, Managua, Nicaragua).

125. Ms Chacon informed that ICG/CARIBE-EWS XVII requested the newly established ICG/CARIBE-EWS Steering Committee to develop a strategy for effective coordination with IOCARIBE, UNDRR, WMO, and other regional stakeholders, especially noting that one of the priority areas of IOCARIBE is early warning systems for regional hazards with a strong need to strengthen cooperation between IOCARIBE and ICG/CARIBE-EWS.

126. Ms Chacon further recalled that the ICG/CARIBE-EWS XVII requested the newly established ICG/CARIBE-EWS Steering Committee to revamp the initiative of the Group of Experts (GoE) on the work and implementation plan to enhance the early warning system by including other coastal hazards within the framework of the MHEWS and EW4All initiatives.

127. The establishment of this GoE on the work and implementation plan to enhance the early warning system by including other coastal hazards was decided at the ICG/CARIBE-EWS XII (10–12 May 2017, Puntarenas, Costa Rica, adopted Recommendation ICG/CARIBE-EWS-XII.7) and its report was noted at ICG/CARIBE-EWS XIV (8–11 April 2019, Punta Leona, Costa Rica). An action plan was defined by the GoE including a survey to gather Member States input and advice on how to address EWS for other coastal hazards in the framework of the ICG/CARIBE-EWS. However, this activity was not completed, mainly due to the GoE Chair stepping down and due to the challenging conditions resulting from the COVID pandemic.

128. Ms Chacon highlighted the results of the CARIBE WAVE 2025 exercises that mobilized approximately 500,000 people in total on 20 March 2025.

129. Within the ICG/CARIBE-EWS, a total of 23 communities from 14 Member States (of which 10 are SIDS) are now recognized as Tsunami Ready under the UNESCO-IOC Tsunami Ready Recognition Program.

130. The next session of the ICG/CARIBE-EWS (XVIII) will take place online from 5 to 9 May 2025.

131. The representatives of three Member States (United States, Mexico, and Barbados) took the floor.

132. The representative of United States chose to provide record of its plenary intervention.

The United States thanks the presenter for her comprehensive report. The United States will advocate for a work plan for the early warning system that prioritizes timely, advanced, and improved tsunami detection, analysis and forecast and prepared and resilient communities. The United States congratulates the CARIBE EWS for the high participation by almost all Member States in the CARIBE WAVE 25 exercise and notes the advances in the implementation of Tsunami Ready. We are pleased to have been able to support both of these activities through the International Tsunami Information Center Caribbean Office. The United States would also like to highlight continued support to the advancement of the CARIBE EWS in particular through its Pacific Tsunami Warning Center as a Tsunami Service Provider and the International Tsunami Information Center, is committed to continue to provide timely and effective tsunami services for the protection of life, livelihoods and economic prosperity in the U.S. and the Pacific and the Caribbean and Adjacent Regions. Thank you.

133. Mexico expressed appreciation for the opportunity to engage with other countries and acknowledged the valuable support received in addressing the diverse risks posed by its vast territory. The country has benefitted from international cooperation, particularly in simulations and real emergency scenarios, and remains committed to participating actively in all committees and subcommittees to strengthen national training capacities. Over the past 12 years, Mexico has made significant progress in community outreach and disaster preparedness, notably through the Tsunami-Ready program. Efforts are ongoing to achieve community recognition under this initiative, inspired by the examples set by Costa Rica and various Caribbean islands. Mexico reaffirmed its commitment to the system and is developing an integrated national programme for the UN Ocean Decade, involving all relevant institutions. The country looks forward to sharing its successes and achieving its first officially recognized Tsunami-Ready community.

134. Barbados reaffirmed its national commitment to the Tsunami Ready programme, noting recent participation in a new launch in St. Michael (NW). Despite ongoing institutional changes and staffing challenges, the country intends to resume full engagement once these issues are resolved.

6.3. CAPACITY DEVELOPMENT AND GOVERNANCE

135. Prof Elva Escobar, Chair of the IOCARIBE Capacity Development Working Group, introduced this item. Capacity needs in the IOCARIBE region include higher education human resources developed at the national and regional scales, training for the tourism, fisheries, management and decision-making sectors, and continuous professional development through networking with the SIDS Blue Schools and the New Blue Curriculum in topics such as e-DNA, Marine Spatial Planning, and Blue Economy, among others. Internships, fellowships, and onboard training programs from SCOR, POGO, ISA and Ocean Decade Opportunities offer great opportunities to the region, as do the visiting lecturer/scholar/researcher programmes, professional exchanges from these programs as well as the NASEM GRP UGOS, NOAA, and Geo BON Blue Planet initiatives.

136. Sargassum and HABs are among the priority topics of interest for which training materials and tools are welcomed, such as using remote sensing, metagenomics, coastal hazard early warning systems, and marine spatial planning. These topics link to seven Ocean Decade endorsed projects in the region. Collaboration with other organizations on a mentoring programme and exploring partners and funders to establish an IOCARIBE travel grant "fund" are among the near-term objectives, as are liaising with global networks to strengthen capacity development in ocean observing to have better forecasting capabilities for policy and regional climate change planning, both in Areas Beyond National Jurisdiction (ABNJ) and in regional Exclusive Economic Zones (EEZs). Both established and emerging ocean-based industries in the WTAC region require strengthening of the bridge between science "generators" and science "users," and potentially open funding channels while maintaining scientific independence. Knowledge is needed to support the effective stewardship of ocean sciences in the region into the future and beyond the UN Ocean Decade. To gain this knowledge, the region requires equitable access to ocean infrastructure and substantial investment in capacity building and science by potential funders.

137. With regards to integrating ocean science into basic education curricula, there are several opportunities where the region is participating, such as the Blue Schools SIDS network and a New Blue Curriculum. Hands-on capacity development at sea for ECOPs could also be a new opportunity worth exploring. All these opportunities include gender, generational and geographic diversity perspectives. Redefining ocean literacy is required to engage local communities in the ocean programs and reconnect people with the ocean. The role of local communities is important in funding capacity development programs and good science. The region has a great need for human capacity to structure expert groups in marine research. The ratio of researchers to the total population of the IOCARIBE region is still small, as is funding for capacity development and science. Financial support is required to attract, retain and sustain local talent in the long-term to build regional ocean research groups in the science topics that are needed. Capacity development in the region requires building equitable partnerships by ensuring inclusivity. "Parachute science" can hinder equitable partnerships in ocean research and has been shown to perpetuate inequalities in capacity development and local leadership.

138. Local and national capacity development needs have been identified to enhance access to technology, infrastructure, data and information related to ocean acidification, microplastic pollution, harmful algal blooms, eutrophication, essential ocean variables, and tsunamis.

6.3.1. Ocean Literacy

139. Dr Rahanna Juman of Trinidad and Tobago's Institute of Marine Affairs (IMA) and Prof Ronaldo A. Christofoletti, Instituto do Mar - Universidade Federal de São Paulo, Brazil, provided a report on this item. During the first meeting of the Capacity Development Working Group, the proposal of the IOCARIBE Board of Officers to establish an IOCARIBE Task Team on Ocean Literacy was endorsed. The first meeting of the IOCARIBE Task Team on Ocean Literacy took place on 15 November 2024. Member States and partner organizations were engaged and encouraged the Sub-Commission to continue building the regional Ocean Literacy Network.

140. Ms Paola Diaz, IOCARIBE Consultant, provided a report on the CARIBE Blue School Coordinators Training for the Caribbean and Adjacent Regions, which was held in Cartagena, Colombia, from 1 to 3 April 2025. The training brought together participants from 13 countries across Latin America and the Caribbean, all committed to advancing ocean literacy through the Blue Schools Network. A key focus was on adapting global models of ocean literacy to regional and local contexts, ensuring relevance and cultural resonance. The program featured presentations from experienced Blue Schools coordinators who shared their successes and challenges in implementing the model, offering valuable lessons for emerging coordinators. Partners and stakeholders also contributed actively, highlighting the importance of inclusive collaboration across institutions and communities. Participants engaged in interactive

sessions including role-playing by sector, governance planning, partner mapping, and group discussions. Together, they co-developed practical tools such as application forms, evaluation surveys, and strategies for implementation. Emphasis was placed on inclusive and intergenerational education, working with indigenous and coastal communities, building strong partnerships, and ensuring long-term sustainability through adaptive governance. The training created a collaborative platform for exchange and reinforced regional ownership and innovation within the global Blue Schools framework.

141. The representatives of Aruba and Brazil took the floor.

142. Aruba shared its experience implementing various school models, highlighting the use of the Green School Standards to streamline efforts across sectors.

143. Brazil expressed support for the work presented and emphasized the need to continue expanding work on ocean literacy.

144. The representative of Colombia chose to provide record of its plenary intervention.

Colombia wishes to express its gratitude and congratulations for the achievements within the framework of the IOCARIBE Ocean Literacy Task Team. In particular, we value the successful implementation of the Caribbean Blue Schools Coordinator Training, which strengthened the educational and awareness-raising dimension of the issue in our region.

In this context, and based on the country's participation and after analyzing the results of this event, Colombia believes it is appropriate that, within the framework of IOCARIBE, the importance of involving Blue Schools teachers in the training of other practioners be highlighted, as well as the importance of building community, trust, and transparency among the institutions participating in Blue Schools programmes.

Colombia also believes that the celebration of "world days" related to environmental, cultural, or folkloric themes, or the creation of partnerships, represents a strategic opportunity to integrate the ocean into formal and informal education.

Considering that in Colombia, ocean literacy is prioritized, contributing to quality education and a deep, comprehensive, and integrated understanding of concepts related to the ocean and phenomena such as climate change. Thus, an effort has been made through the National Technical Committee on Ocean Education, convening intersectoral efforts with the support of the Ministry of Education to incorporate these concepts into the national curriculum guidelines. Thank you very much, Mr President.

6.3.2. UNDP/GEF/UNOPS PROCARIBE+ Project

145. Mr Patrick Debels, Regional Project Coordinator of PROCARIBE+, provided an overview of the flagship regional GEF project. PROCARIBE+ (2023-2028) is a successor to the CLME and CLME+ Projects, in which IOCARIBE was also strongly engaged, and supports the continued implementation of the regional CLME+ Strategic Action Programme (SAP).

146. Mr Debels highlighted the relevance of several elements under the Project Results Framework for IOCARIBE and its Member States, both in terms of the project's regional-level outputs as well as its support for specific in-country activities.

147. Mr Debels further highlighted the role of IOCARIBE as a key PROCARIBE+ coexecuting partner, in particular on matters relating to capacity development and marine spatial planning, and emphasized the catalytic role of PROCARIBE+ in operationalizing the regional "Coordination Mechanism for Integrated Ocean Governance in the Caribbean and North Brazil Shelf Large Marine Ecosystems" - the "Ocean Coordination Mechanism" or "OCM" (see also Agenda Item 7.1.4), and the mobilization of wider-ranging "ocean" partnerships (e.g. on ocean data and information).

148. Mr Debels encouraged both IOCARIBE's as well as the Member States' active and timely engagement in the PROCARIBE+ activities in the region, as well as the promotion of synergies with other ongoing projects and activities, in support of the project's successful

implementation and with the aim of maximizing its benefits for the countries and the region.

149. The representative of Brazil took the floor, acknowledging the project's value and potential for sustained regional impact. The representative emphasized that while PROCARIBE+ is an important initiative, it should not be considered the successor of the Ocean Decade structures. Instead, it was stated that the OCM can serve as a platform for regional dialogue and strategic planning to reflect on how to sustain the legacy of the UN Ocean Decade beyond 2030. Brazil stressed the importance of preserving the distinct identity and goals of the Ocean Decade, with the OCM potentially supporting its continuation but not replacing its framework. The representative further highlighted that strategic decisions should stem from Member States through multilateral dialogue and not be donor-driven.

6.3.3. Marine Spatial Planning

150. Mr Alejandro Rojas, IOCARIBE Consultant, presented this agenda item. Under the UNDP/GEF/UNOPS PROCARIBE+ Project, IOCARIBE is responsible for implementing the following activities:

151. Capacity development activities related to marine spatial planning have been and will continue to be carried out in collaboration with the UNESCO Marine Spatial Planning (MSP) Global Project, the UNDP/UNEP/GEF IW:Learn Project and other regional partners. One Regional MSP Forum and training activity has taken place from 18 to 21 February 2025 in Panama City, Panama.

152. IOCARIBE activities in Colombia include supporting the development of multi-sector MSP processes for Cartagena Bay and adjacent areas (~274 km²). In the Dominican Republic, activities include supporting one (1) coarse-scale MSP covering a substantial part of the EEZ (min. 150,000 km²) and at least one (1) additional finer-scale MSP, covering a "high-priority" marine-coastal area of no less than 1,400 km². Presently, IOCARIBE is in negotiation with partners in Colombia and the Dominican Republic to establish Implementing Partnership Agreements to carry out these MSP exercises.

153. IOCARIBE has continued to advocate for strengthened MSP efforts in the Wider Caribbean Region, including the promotion of regional exchange among MSP practitioners and the identification of training opportunities, including the use of global MSP toolboxes. It was recommended that an MSP Task Team be established under IOCARIBE's Capacity Development Working Group. The importance of conducting economic valuation studies to support MSP implementation, as well as integrating climate change adaptation strategies into national MSP processes, was also emphasized.

6.3.4. Sargassum

154. Ms Audrey Hasson, Chair of the IOCARIBE Sargassum Working Group (WG), presented this agenda item. The Sargassum WG has been active during the biennium, meeting monthly and sharing sargassum research through presentations by WG members.

155. Since 2011, large blooms of pelagic sargassum have affected the tropical Atlantic, causing major disruptions. To mitigate these impacts, remote sensing, in situ data, and predictive models are used for monitoring and early warning. A working group of 44 experts from 17 countries is coordinating international efforts. The group operates through four (4) task teams focusing on information sharing, community tools, observation systems, and organizing a Sargassum forum.

156. The representative of Cartagena Convention Secretariat and the Chair of IOCARIBE Capacity Development Working Group took the floor.

157. The Cartagena Convention Secretariat highlighted advances by another regional Sargassum Working Group established in support of the Cartagena Convention's Specially Protected Areas and Wildlife (SPAW) Protocol and encouraged collaboration with the IOCARIBE Sargassum WG. Understanding ecological drivers of Sargassum influx was

emphasized as a critical step toward addressing the issue.

158. Prof Elva Escobar, Chair of the IOCARIBE Capacity Development Working Group (speaking in a technical capacity, not as a national delegate), stressed the need for training and knowledge-sharing on Sargassum for Early-Career Ocean Professionals (ECOPs) and educators. The Secretariat acknowledged ongoing partnerships with regional organizations and noted efforts to secure funding for expanded training programs, including a potential summer school initiative.

159. Ms Hasson noted that they already collaborate closely with the SPAW Regional Activity Centre in Guadeloupe and are familiar with decision-making tools for ecosystem protection. She expressed interest in working with Early Career Ocean Professionals (ECOPs) and welcomed ideas, while noting time constraints. She also mentioned ongoing collaboration with colleagues in Mexico who work on Sargassum, highlighting a potential opportunity for further engagement.

6.3.5. Deep Sea and Areas Beyond National Jurisdiction

160. Prof Elva Escobar, Chair of the IOCARIBE Capacity Development Working Group, presented this agenda item. She noted that deep-sea data gaps are particularly evident in regions of steep decline with increasing depth, particularly from pelagic and seafloor areas of EEZs of nations within and bordering the TAC region. This trend drops to almost zero records at lower bathyal depths (3,000 m), while pelagic data have a wider spatial coverage. A few exceptions in both pelagic and benthic data are found at time series stations in the Gulf of Mexico and the Bahamas, or in specific ecosystems such as deep-sea hydrothermal vent fields in the Cayman Islands and the Lesser Antilles, where major exploration efforts have taken place. Regional deep-sea databases are smaller orders of magnitude, with most existing data stored in international global repositories, highlighting the need for more systematic sampling in the Wider Caribbean Region. Data published in OBIS and the Global Biodiversity Information Facility (GBIF) present the opportunity to track progress on Ocean Decade challenges and guide deep-sea research priorities through the UN Ocean Decade.

161. Marine litter has been reported to a lesser extent in the WTAC deep-sea, entering mostly from land-based sources requiring verification. Conservation is limited with only a few nations in the region protecting their deep-sea ecosystems. Plans exist to expand existing Marine Protected Areas (MPAs), sanctuaries, parks and reserves or to add Other Effective Area-Based Conservation Measures (OECMs). The expansion from shallow to deeper waters is based on identifying priority conservation areas in offshore and deep-sea zones where conservation efforts are currently minimal. Recent collaborative exploration efforts are contributing to deep-sea knowledge and to achieving the Kunming-Montreal Global Biodiversity Framework target of 30x30. These efforts control fishing, although management challenges still exist, as do the risks from deep-sea oil and gas extraction. Many MPAs require baseline research and further scientific knowledge.

162. Global deep-sea capacity assessments have demonstrated the region's limited access to infrastructure and technology. Although national assessments of scientific impact often focus on publication counts, strengthening the capacity to conduct locally led deep-sea research should be prioritized.

163. Prof Escobar noted that only five (5) nations in the Caribbean have deep sea research vessels to study biodiversity. Challenges include funding, access to knowledge and vessels. There is a great need to access the best available deep ocean scientific information to guide upcoming UN negotiations. She emphasized that supporting CD work at sea is urgent, and the region should take advantage of its existing research vessels, networks, and experts. Strengthened governance and enhanced technology are needed to equitably advance deep ocean science, knowledge, and policy, and to inform and support sustainable management and biodiversity both within the Exclusive Economic Zones and in adjacent areas beyond national jurisdiction.

164. The Chair inquired about a map in the presentation indicating overseas countries and territories and asked if wealthier countries, such as the United Kingdom, France, and the Kingdom of the Netherlands, would have access to deep-sea vessels.

165. Prof Escobar clarified that only five (5) nations in the region have active deep-sea vessels: Bermuda, USA, Mexico, Colombia, and Brazil. She noted that France, the United Kingdom, and Puerto Rico could contribute by deploying their vessels to support research efforts in the region, which would not only strengthen local capacity but also generate valuable data. However, she also pointed out a common discrepancy: while some vessels are officially reported as active, feedback from scientists and stakeholders on the ground often reveals that they are not operational or readily available for research.

166. The representatives of Brazil, Mexico, Venezuela and Colombia took the floor.

167. Brazil emphasized the strategic advantage of having established presence in the region and highlighted the importance of recent leadership changes that have prioritized science within governmental agendas. These developments were seen as essential enablers for enhanced regional scientific collaboration.

168. Mexico elaborated on the central role of national focal points as entryways for international collaboration, explaining that in their case, the focal point is at the Ministry of Public Education. Coordination is managed through a national subcommittee involving research institutes, universities, and various governmental bodies. Mexico stressed the importance of involving institutions such as the Navy Ministry, which not only ensures national maritime security but also conducts significant oceanographic research. It was recommended that initial contacts for collaboration should be channeled through national focal points. Mexico also recognized the dual role of the navy in both defense and marine science, noting their contributions to tsunami warning systems and their leadership in national maritime commissions.

169. Venezuela shared a practical model of how its naval vessels are used for scientific research through coordination with the National Institute of Aquatic Areas. It was explained that although the Navy owns the vessels, research is conducted by academic and scientific institutions. The national focal point plays a key role in managing this coordination. Venezuela recommended this approach as a replicable model, emphasizing the value of inter-institutional cooperation and making national assets available for scientific use.

170. Colombia highlighted the importance of using national focal points as the official channels for initiating collaboration and access to maritime research platforms.

7. INSTITUTIONAL FRAMEWORK

7.1. STATUS OF COOPERATION WITH OTHER ORGANIZATIONS

7.1.1. Agreement with the Georgia Aquarium

171. Dr Lorna Inniss, Secretary of IOCARIBE, presented this agenda item. She noted that during the biennium, the Sub-Commission began to collaborate with the Georgia Aquarium on activities of capacity development and ocean literacy. The Georgia Aquarium has expressed interest in signing a Memorandum of Understanding (MOU) with UNESCO IOC to support the implementation of the UN Ocean Decade in the IOCARIBE region.

172. Mr Baily Dawson, Director of Education and Community Engagement at the Georgia Aquarium in Atlanta, Georgia, spoke on behalf of the Georgia Aquarium. The Georgia Aquarium is committed to research, conservation, and education, with a focus on ocean literacy and aquatic sustainability. They aim to support the region through these pillars and are seeking financial contributions to support the rollout and training of the Blue Schools Initiative, as well as ocean literacy programs.

173. The Georgia Aquarium is currently running a shark and ocean literacy program in Jamaica and St. Lucia, aimed at supporting the tourism sector and local schools. The program

focuses on promoting ocean literacy, stewardship, and transforming fears of sharks into understanding and fascination. They seek to expand this initiative to other countries in the region and support the Blue Schools Network. Additionally, they operate the NOAA Ocean Guardians program in the Southeastern USA. As they engage with Blue Schools, they aim to enhance financial support for program development, rollout, and training, including assisting countries in integrating ocean literacy into school curricula and teacher training.

174. The Georgia Aquarium aims to enhance aquatic sustainability by supporting blue economy initiatives and leveraging their research, scientists, and partnerships in relevant countries. They seek to help sustain ecosystems in Marine Protected Areas (MPAs) through revenue generation. The Aquarium is committed to supporting the region and is eager to participate in future initiatives. They emphasized their willingness to provide "boots on the ground" by dedicating personnel time to engage with Member States and advance these efforts.

175. The Secretariat acknowledged the assistance provided by the Georgia Aquarium for the Blue Schools training, noted that a recommendation had been put forth for an Agreement with the Georgia Aquarium, and stated that they would follow up, possibly next week, after Member State negotiations.

7.1.2. MoU with GEO Blue Planet

176. Ms Audrey Hassen, GEO Blue Planet Executive Director, provided a presentation on this item. GEO Blue Planet is a GEO initiative that uses ocean and coastal observations to inform sustainable policy and decision-making. It operates as an open, global network of experts and stakeholders. GEO Blue Planet invites IOCARIBE to become a Partner Organization and formalize their long-standing cooperation through a non-binding Memorandum of Understanding (MoU) to support collaboration and shared objectives.

177. Dr Lorna Inniss, IOCARIBE Secretary, noted that GEO Blue Planet has set an example of exactly how a Sargassum working group should function, linking their work with effects on tourism. She indicated that they are providing valuable information that would lead to outcomes in the form of decision support for Member States. She further noted that Member States consider a recommendation to establish a cooperation agreement with GEO Blue Planet to collaboratively support and guide the ongoing efforts of the regional Sargassum Working Group.

7.1.3. Cooperation with One Ocean Hub

178. Dr Milica Prokic, Knowledge Exchange Associate with One Ocean Hub, presented this item on behalf of Dr Philile Mbatha, Deputy Director of One Ocean Hub. The One Ocean Hub is an international programme of research for sustainable development, working to promote fair and inclusive decision-making for a healthy ocean whereby people and the planet flourish. They've been working since 2019, when the Hub was established in the UK at the University of Strathclyde and have since moved to the University of Cape Town, South Africa. They often engage with Southern Africa, the South Pacific, Barbados and are hoping to expand more into the Caribbean region.

179. The One Ocean Hub collaborates with IOC UNESCO as an implementing partner for the UN Ocean Decade. Their efforts extend beyond traditional ocean literacy to encompass "Ocean Literacies" and "Ocean Fluency," aiming to empower coastal communities by amplifying local voices and providing capacity development. They co-develop innovative, scalable, participatory, and arts-based approaches for ocean health, using storytelling to influence decisions and breaking barriers. The Hub also collaborates on marine resource management and supports marine spatial planning for sustainable use. In shaping the blue economy, they advocate for growth that respects human rights and culture. Additionally, they influence law and policy by providing capacity development for decision-makers, governments, and the private sector, while engaging stakeholders for transformative ocean governance.

180. The Hub has created transdisciplinary opportunities to promote accessible ocean literacy and knowledge sharing through an equitable, user-friendly portal. Initiatives include art-based engagement in marine spatial planning and ocean literacy, as well as contributions to the development of a transdisciplinary toolbox for transformative ocean governance.

181. The platform offers a low-bandwidth option to improve access to ocean data and information. Other initiatives include documentary films, impact stories, and pop-up legal clinics for environmental lawyers, which have been particularly beneficial to women in small-scale fisheries. Through the Toolbox, the Hub hopes to collaborate with IOCARIBE ECOPs working on island-specific challenges, including risks, resilience, and island life.

182. The representative of One Ocean Hub chose to further provide records of its presentation.

Leading the global initiative for ocean literacy, the Hub has been endorsed as a UN Ocean Decade Implementing Partner and the founding member of the Blue Thread Ocean Literacy initiative. Since its inception in 2019, the Hub has brought together over 250 researchers from within and beyond international academia, including 40 early career researchers. Within the Hub, researchers from and straddle the disciplines of law, sustainability studies, human geography, islands studies, blue humanities, fisheries science and oceanography to work with co-researchers including artists, activists, and coastal and island community members and small scale fishers from South Africa, Namibia, Mozambigue, the Caribbean, and the South Pacific to bring the Indigenous knowledge and the voices of coastal women and youth into the conversation with local, national and international decision makers and thus influence ocean policy making. The key synergies between the Hub and IOCARIBE lie in providing training and capacity building regarding Marine Spatial Planning, Ocean Literacy and stakeholder engagement work. In addition, the Hub would wish to integrate the island segment in its flagship Decade Implementing Partner project: The Transdisciplinary Toolbox for Transformative Ocean Governance, by working with IOCARIBE on the toolbox concerning ocean literacy and stakeholder engagement focusing on island and coastal Caribbean context.

7.1.4. The Regional Ocean Coordination Mechanism (OCM)

183. Mr Patrick Debels provided an update on the regional "*Coordination Mechanism for Integrated Ocean Governance in the Caribbean and North Brazil Shelf Large Marine Ecosystems*" - the "*Ocean Coordination Mechanism*" (*OCM*) - its mandate, structure, functions, and status of operationalization.

184. Mr Debels debriefed the meeting on the OCM's commencement on the 19th of December of 2024 and on key activities expected from the OCM in the coming years, with special attention to those planned for 2025, including the First Meeting of the OCM Steering Group during the month of May.

185. Mr Debels noted that the current OCM membership already includes IOCARIBE as well as 8 other Intergovernmental Organizations with an oceans-relevant mandate, and 18 IOC of UNESCO Member States.

186. Mr Debels highlighted how the creation of the OCM is considered a historic breakthrough towards enhanced regional-level ocean governance. Of relevance in the context of the work of IOCARIBE is how the OCM can support the region-wide strengthening of the science-policy interface and enhance marine data and information management, and how the OCM provides a platform that can support the implementation of the UN Ocean Decade.

187. The OCM will help to reduce duplication and increase coordination and collaboration amongst countries and IGOs working in the Wider Caribbean Region on ocean and coastal issues for healthier and stronger, climate resilient blue economies.

188. As of 15 April 2025, the States and Territories Signatories of the OCM MOU include: Antigua and Barbuda; Aruba; Bahamas; Belize; Costa Rica; Curacao; Dominica; Dominican Republic; Grenada; Haiti; Honduras; Kingdom of the Netherlands on behalf of Bonaire, Saba and Sint Eustatius; Panama; St. Kitts and Nevis; Saint Lucia; Suriname; and USA.

7.1.5. All Atlantic Ocean Research and Innovation Alliance (AAORIA)

189. Dr Roberto de Pinho, Vice-Chair of IOCARIBE, provided a presentation on the All-Atlantic Ocean Research and Innovation Alliance (AAORIA). He highlighted that AAORIA has engaged with the Board of Officers of IOCARIBE and the Secretariat with a view to strengthen engagement and encourage Member States of IOCARIBE to join AAORIA.

190. Dr Lorna Inniss, IOCARIBE Secretary, requested clarification on the role proposed for the Sub-Commission in AAORIA, asking whether it is limited to encouraging Member States to join and participate, or if there is also an expected role for the Secretariat in the initiative.

191. Dr de Pinho responded that the role of the Sub-Commission in AAORIA had not yet been formally decided and remains under discussion. However, IOCARIBE is already considered a supporter of AAORIA by virtue of the IOC being an officially recognized supporter. He noted that there are likely to be complementary networks and activities, such as the All-Atlantic Blue Schools Network and the developing IOCARIBE Blue Schools Network, which could be aligned. He confirmed that the Secretariat is expected to play a role in coordinating these efforts. Additionally, he acknowledged the potential for collaboration with AAORIA initiatives not directly linked to IOCARIBE Member States, such as activities along the East Atlantic Coast, which may share similar priorities and needs.

192. Dr Inniss reiterated that a separate agreement would not be necessary, as the connection already exists through the IOC. She noted that, given AAORIA's focus on monitoring networks, there is potential for collaboration between the IOCARIBE-GOOS Working Group and AAORIA.

193. Dr de Pinho noted that one of AAORIA's focus areas is ocean observing, which aligns with a key area of action under U.S. leadership. He mentioned that this had been raised as a potential area for collaboration a few months prior, given the critical importance of ocean observations in the Caribbean.

7.1.6. International Atomic Energy Agency (IAEA)

194. Mr Marc Metian, IAEA, provided a report on the International Atomic Energy Agency (IAEA) support to the Caribbean and adjacent regions capacity building efforts on Marine Environment. The IAEA collaborates with its Member States and a wide range of partners globally to promote the safe, secure, and peaceful use of nuclear technologies, with numerous applications relevant to the marine environment and aligned with the Sustainable Development Goals (SDGs). The Agency supports the transfer of research, development, project management, and technical expertise. Mr Metian's laboratory, based in Monaco, was noted as the only marine laboratory within the UN system dedicated to meeting the needs of Member States. He highlighted the "Ocean Acidification Coordinated Research Program," which examines the impacts of ocean acidification on seafood. Ongoing projects involving over 130 countries also address marine toxins, blue carbon, marine plastics, and pollution affecting seafood safety.

195. The Research Network of Marine-Coastal Stressors in Latin America and the Caribbean (REMARCO) was presented as a potential support to the Sub-Commission as a regional network focused on coastal areas, offering expertise, training, equipment, and analytical capabilities for marine monitoring. Mr Metian emphasized the opportunity for the REMARCO project to expand and expressed interest in fostering collaboration and partnerships across the region, particularly given that 96% of IOCARIBE Member States are also members of the IAEA.

196. Dr Inniss inquired about how to best collaborate, for example, if they could create a linkage between IAEA and the IODE regional Ocean Info Hub (OIH), or if he envisioned other collaborations. They had previously suggested the possibility of having REMARCO endorsed as a UN Ocean Decade project, which may be an effective way of creating more visibility in the region.

197. Dr Inniss asked how to best engage the IAEA to collaborate with related IOCARIBE Sub-Commission projects.

198. Mr Metian responded that there are several bilateral and multilateral opportunities for collaboration. IODE, for instance, was invited to support the development of a plastics database in coordination with UNEP and the Global Partnership on Marine Litter (GPML). He noted that IOC holds information on early warning systems for marine toxins and would be glad to contribute if needed. From a practical standpoint, the IAEA can offer guidance or connect regional stakeholders with relevant experts. Should a more active role be requested, the Agency could facilitate trainings, for example, a basic course on ocean acidification in Jamaica. He emphasized the importance of improved communication to share such opportunities and expressed readiness to support project development, capacity building, and national activities, as well as to identify and engage regional experts.

8. ADMINISTRATION AND MANAGEMENT

8.1. REPORT BY IOC ON THE PROGRAMME AND BUDGET FOR NEW BIENNIUM 2026-2027

199. Given the ongoing processes in IOC governance management, planning, and budget, which will be finalized at the 33rd Session of the IOC Assembly, and the current uncertainties, it was deemed impractical to address budget issues at SC-IOCARIBE-XVIII. It was thus recommended that subsequent Intergovernmental Sessions of IOCARIBE be held during the third quarter of the year prior to an IOC Assembly to better align with the planning and budgeting cycle of IOC

8.2. ELECTIONS OF THE BOARD OF OFFICERS OF THE SUB-COMMISSION

200. The IOCARIBE Secretary announced that the Secretariat received one nomination for Chairperson and three nominations for Vice-Chairpersons, all with completed CVs, eliminating the need for an election during the 18th session.

8.2.1. Election of the Chairperson of the Sub-Commission

201. Dr Marck Oduber (Aruba) was re-elected as Chairperson.

8.2.2. Election of Vice-Chairpersons of the Sub-Commission

202. Dr Soraya Silva (Venezuela) and Dr Roberto Dantas de Pinho (Brazil) were re-elected as Vice-Chairpersons; and Dr Rahanna Juman (Trinidad and Tobago) was elected as a new Vice-Chairperson. The new Board of Officers was elected by acclamation.

203. The Sub-Commission expressed its sincere appreciation to Dr John Victor Cortinas (USA) for his years of dedicated service to IOCARIBE, following his retirement and departure from the Board.

8.3. DATES AND PLACE OF THE NINETEENTH SESSION OF THE SUB-COMMISSION

204. The IOCARIBE Chairperson introduced this item, recalling that Regional Sub-Commissions of IOC should meet every two (2) years, preferably before the IOC Assembly, to review their activities and timely submit their Recommendations and budgetary requests to the main governing body of IOC.

205. The Sub-Commission decided to hold its Nineteenth Intergovernmental Session during the third quarter of 2026 to better align with the timeline of IOC's work plan and budgeting period for 2028-2029.

206. The IOCARIBE Chairperson requested Member States to present their offers to host the 19th Session of the IOCARIBE Sub-Commission during the 3rd quarter of 2026.

207. An expression of interest to host the 19th Intergovernmental Session was received

from Guatemala.

208. An expression of interest to host the 19th Intergovernmental Session was received from Mexico.

209. An expression of interest to host the 19th Intergovernmental Session was received from the Kingdom of the Netherlands.

9. OTHER MATTERS

210. The Chairperson inquired if there were other matters to discuss in the SC-IOCARIBE-XVIII prior to the decisions and recommendations agenda item.

211. Colombia's request from the previous day for the advance preparation of meeting materials ahead of SC-IOCARIBE-XIX was recalled, emphasizing that Member States should be invited to contribute earlier to the drafting of the Action Paper.

212. It was recommended that the IOCARIBE Board convene 1-2 months before the next Intergovernmental Meeting to co-develop a draft version.

10. ADOPTION OF DECISIONS AND RECOMMENDATIONS

213. The Chairperson of the Recommendations Committee reported to the Sub-Commission on the work of the Committee during the session.

214. The Chairperson of the Session invited the Sub-Commission to adopt the Draft Recommendations of its present Session.

No.	Title
<u>1</u>	United Nations Decade of Ocean Science for Sustainable Development
<u>2</u>	Ocean Literacy
<u>3</u>	Capacity Development
<u>4</u>	IOCARIBE-GOOS
<u>5</u>	Blue Carbon
<u>6</u>	Regional Ocean Coordination Mechanism
<u>7</u>	Marine Spatial Planning
<u>8</u>	UNDP/GEF/UNOPS PROCARIBE+ Project
<u>9</u>	Ocean Data and Information
<u>10</u>	Sargassum Working Group
<u>11</u>	Ocean Acidification
<u>12</u>	National Contacts
<u>13</u>	Harmful Algal Blooms
<u>14</u>	All-Atlantic Ocean Research and Innovation Alliance

215. The Sub-Commission adopted fourteen Recommendations as follows:

11. CLOSURE

216. Dr Marck Oduber, IOCARIBE Chairperson, closed the SC-IOCARIBE-XVIII on 25 April 2025 at 13.00 hrs on 25 April 2025.

ANNEX I

AGENDA

1. OPENING

2. ORGANIZATION OF THE SESSION

- 2.1. ADOPTION OF THE AGENDA
- 2.2. DESIGNATION OF THE RAPPORTEUR FOR THE SESSION (CHAIR)
- 2.3. ESTABLISHMENT OF SESSIONAL COMMITTEES AND WORKING GROUPS
- 2.4. INTRODUCTION OF DOCUMENTATION AND TIMETABLE (CHAIR)

3. IOCARIBE MATTERS AND REPORTS

3.1. STATEMENT OF THE CHAIRPERSON

3.2. IOCARIBE SECRETARY'S REPORT ON THE WORK ACCOMPLISHED SINCE THE SEVENTEENTH SESSION AND BUDGET IMPLEMENTATION

4. STRATEGIC DEVELOPMENT

4.1. IOC STATUTES, FUNCTIONAL AUTONOMY AND IMPLEMENTATION OF THE IOC MEDIUM TERM STRATEGY

4.2. SESSION ON IOC AND THE FUTURE OF THE OCEAN

4.3 DRAFT STRATEGY ON SUSTAINABLE OCEAN PLANNING AND MANAGEMENT

4.4. DRAFT IMPLEMENTATION PLAN FOR IOC CAPACITY DEVELOPMENT STRATEGY 2023-2030

5. IOCARIBE CONTRIBUTION TO UN DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT (2021–2030)

5.1. UN OCEAN DECADE: GLOBAL UPDATE

5.2. UN OCEAN DECADE REGIONAL IMPLEMENTATION

5.2.1. TASK FORCE FOR THE TAC REGION

5.2.2. ROAD MAP FOR IMPLEMENTATION IN THE TAC REGION

5.2.3. UN OCEAN DECADE COORDINATION OFFICE FOR THE TASK FORCE IN THE TAC REGION UPDATE

6. REVIEW OF REGIONAL PROGRAMMES, PROJECTS, WORKING GROUPS AND FUTURE DIRECTIONS

6.1. OCEAN RESEARCH

6.1.1. Harmful Algal Blooms

6.1.2. Ocean Acidification

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

6.2.1. IOCARIBE GOOS

6.2.2. International Oceanographic Data and Information Exchange (IODE) 6.2.3. ADAPT PROJECT

6.2.4. ICG CARIBE EWS

6.3. CAPACITY DEVELOPMENT AND GOVERNANCE

- 6.3.1. Ocean Literacy
- 6.3.2. UNDP/GEF/UNOPS PROCARIBE+ Project
- 6.3.3. Marine Spatial Planning
- 6.3.4. Sargassum
- 6.3.5. Deep Sea and Areas Beyond National Jurisdiction

7. INSTITUTIONAL FRAMEWORK

7.1. STATUS OF COOPERATION WITH OTHER ORGANIZATIONS

- 7.1.1. Agreement with the Georgia Aquarium
- 7.1.2. MoU with GEO Blue Planet
- 7.1.3. Cooperation with One Ocean Hub
- 7.1.4. The Regional Ocean Coordination Mechanism (OCM)
- 7.1.5. All Atlantic Ocean Research and Innovation Alliance (AAORIA)
- 7.1.7 International Atomic Energy Agency (IAEA)

8. ADMINISTRATION AND MANAGEMENT

8.1. REPORT BY IOC ON THE PROGRAMME AND BUDGET FOR NEW BIENNIUM 2026-2027

8.2. ELECTIONS OF THE BOARD OF OFFICERS OF THE SUB-COMMISSION

- 8.2.1. Election of the Chairperson of the Sub-Commission
- 8.2.2. Election of Vice-Chairpersons of the Sub-Commission

8.3. DATES AND PLACE OF THE NINETEENTH SESSION OF THE SUB-COMMISSION

9. OTHER MATTERS

10. ADOPTION OF DECISIONS AND RECOMMENDATIONS

11. CLOSURE

ANNEX II

RECOMMENDATIONS

Recommendation SC-IOCARIBE-XVIII.1

United Nations Decade of Ocean Science for Sustainable Development

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

Recalling IOCARIBE Sub-Commission Recommendation XVII.9 which encouraged Member States to actively support the implementation of the UN Ocean Decade in the region.

Recognizing the work carried out by the Regional Task Force for the Tropical Americas and the Caribbean (TAC) during the previous biennium and the development of the Roadmap for the implementation of the UN Decade of Ocean Science for Sustainable Development 2021-2030 ('Ocean Decade') in the Tropical Americas and the Caribbean (TAC) Region ("TAC Decade Roadmap").

Welcoming the establishment of the Regional Decade Coordination Office (DCO) at the IOCARIBE Sub-Commission.

Requests the IOCARIBE Secretary to:

- i. Prepare an assessment of the progress on endorsed UN Ocean Decade Actions in the region.
- ii. Develop an implementation plan for the TAC Decade Roadmap that enhances coordination among Member States, UN agencies, regional bodies with ocean-related mandates, and other stakeholders.
- iii. Coordinate funding mobilization efforts to enable the implementation of unfunded and partially funded UN Ocean Decade Actions in the region.
- iv. Facilitate the creation of a Regional Decade Committee to engage Member States throughout the TAC Region and to promote the sharing of experiences, particularly in cases where the formation of National Decade Committees is not currently viable.

Invites Member States to:

- i. 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.
- ii. Form National Decade Committees to lead national engagement, or, where this is not currently feasible, contribute through official representatives in a Regional Decade Committee.
- iii. Support other Member States by sharing successful approaches and lessons learned in establishing National Decade Committees.

Recommendation SC-IOCARIBE-XVIII.2

Ocean Literacy

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

Recalling IOCARIBE Sub-Commission Recommendation XVI.11 requesting the IOCARIBE

Secretary, Member States and stakeholders to enhance Ocean Literacy in the Latin American and Caribbean region.

Recognizing the value of promoting ocean stewardship to raise awareness, inspire responsible behavior, and cultivate a sense of shared responsibility for the marine environment.

Further recognizing the importance of the work carried out by the Ocean Literacy Task Team of the Capacity Development Working Group and by the IOC Ocean Literacy Group of Experts.

Having examined the information and offer from the Georgia Aquarium to support the region in Ocean Literacy and the expansion of the Blue Schools Caribe Network.

Having also examined the report received from One Ocean Hub and having identified opportunities for strengthened Ocean Literacy initiatives in the region.

Requests the IOCARIBE Secretary to:

- i. Enter into an agreement with the Georgia Aquarium to support Ocean Literacy and the expansion of the Blue Schools Caribe Network in the region.
- ii. Enter into an agreement with One Ocean Hub to empower coastal communities in the region through Ocean Literacy.
- iii. Leverage regional partnerships to pilot joint programs and share knowledge.

Urges Member States to:

- i. Nominate national focal points to the Ocean Literacy Task Team to guide national programmes on Ocean Literacy.
- ii. Nominate official coordinators to lead national Blue Schools programmes.

Invites Member States to:

- i. Integrate Ocean Literacy into educational policy frameworks and curricula.
- ii. Promote inter-ministerial collaboration, especially with ministries of environment, education, and science, technology and innovation.
- iii. Fund national Ocean Literacy programmes through core budgets and donor alignment.
- iv. Support the continuation of the work of the Ocean Literacy Task Team and of the IOC Ocean Literacy Group of Experts.

Recommendation SC-IOCARIBE-XVIII.3

Capacity Development

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

Recognizing the work carried out by the Regional Capacity Development (CD) Working Group during the previous biennium.

Further recognizing the differences between the definitions, foci and interests of "Youth" and "Early Career Ocean Professionals (ECOPs)," and the efforts of the Sub-Commission to engage with ECOPs.

Considering training gaps identified in the recently prepared implementation plan of IOC's global Capacity Development Strategy (2023-2030).

Acknowledging the considerable technical expertise within Small Island Developing States (SIDS), despite persistent challenges related to limited financial resources and access to equipment.

Requests the IOCARIBE Secretary to:

- i. Engage with the UN Ocean Decade Capacity Development Facility to identify innovative approaches to mobilizing funding for capacity development on priority issues in the region, both at sea and in the laboratories, and help to partially fund the Ocean Decade endorsed project No. 136.2: Enhancing capacity development in the TAC Region.
- ii. Contribute to the joint development and implementation of the next iteration of the IOC biennial CD survey in close coordination with the IOC CD Secretariat and the Group of Experts on Capacity Development (GE-CD).
- Establish a Task Team on Marine Spatial Planning in support of capacity development activities such as those supported by the UNDP/GEF/UNOPS PROCARIBE+ Project, and to expand Marine Spatial Planning to other IOCARIBE Member States.
- iv. Establish a Task Team on Deep-Sea Research to train a new generations of science leaders and researchers aboard regional research vessels and, where feasible, support Member States in generating relevant scientific knowledge in line with the "Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national", jurisdiction known as the BBNJ Agreement, " and with the capacitydevelopment, training and technical assistance of the International Seabed Authority (ISA).
- v. Continue seeking opportunities to engage with Youth and ECOPs.
- vi. Seek opportunities for technical cooperation, for example with deep-sea global and regional networks (Ocean Decade Laboratory (ODL), Deep-Ocean Stewardship Initiative (DOSI), Deep Ocean Observing Strategy (DOOS), Partnership for Observation of the Global Ocean (POGO), Scientific Committee on Oceanic Research (SCOR), High Seas Alliance (HSA)), that can contribute ocean observing equipment and related training to Member States.
- vii. Assist in sourcing seed funding with philanthropic organizations to maintain research vessels with deep-sea capabilities that are active in the region and useful to capacity development.
- viii. Support the facilitation of access for researchers to existing regional research vessels, ongoing training programs at sea, and improve the access of researchers to deep sea vehicles, sensors, and data tools.

Invites Member States to:

- i. Nominate National Focal Points to the Capacity Development Working Group.
- ii. Encourage the participation of ECOPs in internships in support of IOCARIBE activities.

Recommendation SC-IOCARIBE-XVIII.4

IOCARIBE GOOS

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

Recalling its commitment to advancing the objectives of the Global Ocean Observing System (GOOS), the UN Ocean Decade, and the Early Warnings for All (EW4ALL) initiative.

Further Recalling

- i. The IOC Assembly Decision A-32/4.8.2 (2023), pertaining to Ocean Observations in Areas under National Jurisdiction, and the decision to establish an ad hoc intersessional Working Group on Ocean Observations in Areas under National Jurisdiction.
- ii. The IOC Executive Council Decision EC-57/4.2 (2024) pertaining to the Progress Report of the IOC Ad hoc Intersessional Working Group on Ocean Observations in Areas under National Jurisdiction.
- iii. IOCARIBE Recommendation SC-IOCARIBE-XVII.6 (2023) to enhance IOCARIBE Member State relationships with international programmes, 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; and aligning 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.
- iv. IOCARIBE Recommendation SC-IOCARIBE-XVII.10 (2023) pertaining to IOCARIBE GOOS.

Recognizing the need for enhanced regional coordination, stakeholder engagement, and operational support to strengthen ocean observing and forecasting capacities in the IOCARIBE region.

Noting the recommendations and outcomes of the 16th Session of the GOOS Observations Coordination Group (OCG) from 7-10 April 2025 and the associated IOCARIBE-GOOS Workshop held on 9 April 2025.

Further noting the GlobalCoast / CoastPredict UN Decade Programme regional initiative addressing climate change and coastal resilience challenges, seeking to enhance regional disaster preparedness, foster ecosystem restoration, and support sustainable development in the IOCARIBE Region.

Further recognizing the importance of the GlobalCoast / CoastPredict initiatives and the affiliated project in the region iCHEWS as key contributions to the UN Ocean Decade, and their alignment with regional priorities for advancing coastal resilience, operational oceanography, and multi-stakeholder collaboration.

Acknowledging the efforts undertaken to formulate and promote regional endorsement and ownership of these initiatives through the development of pilot sites and proposals.

Welcoming the activities undertaken to develop and promote the GlobalCoast / CoastPredict initiatives in the region, and continued efforts to align these with regional and national priorities.

Supports the project proposal under the GlobalCoast / CoastPredict Decade Programme, including support for the implementation and possible expansion of pilot sites in the region.

Invites Member States to:

- i. Contribute endorsement letters from Nationally Designated Authorities in order to participate in the GlobalCoast / CoastPredict programme funding proposal.
- ii. Continue supporting activities related to GlobalCoast / CoastPredict in the region, particularly those advancing pilot implementation, national engagement, and the formulation of regional strategies under the UN Ocean Decade endorsed projects such as iCHEWS.
- iii. Designate a National Focal Point for ocean observations and ocean resilience coordination to contribute to the IOCARIBE-GOOS Working Group.

Requests the IOCARIBE Secretary to:

- i. Establish a partnership framework with the Fishing Vessel Ocean Observing Network (FVON) to enable cooperation in regional observation efforts under IOCARIBE-GOOS.
- ii. Encourage continued collaboration with the GOOS Observations Coordination Group (OCG), and other global and regional partners in support of IOCARIBE-GOOS to:
 - Co-develop observing system components that help improve national
 - forecasting capacities, especially for hurricanes and coastal flooding events.
 - Provide technical assistance.
 - Deliver capacity development opportunities, including joint technical training facilitated by IOCARIBE-GOOS and the Capacity Development Working Group, targeting Caribbean institutions and stakeholders.

Recommendation SC-IOCARIBE-XVIII.5

Blue Carbon

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

Acknowledging that robust science is the foundation of effective markets and actions in blue carbon credit schemes.

Noting research that has estimated the mangrove soil carbon stocks in countries at a global scale.

Recognizing the importance of blue carbon studies in support of reporting on Nationally Determined Contributions (NDCs) under the Paris Agreement.

Requests the IOCARIBE Secretary to:

- i. Facilitate technical cooperation with Member States on methodologies for spatial quantification of blue carbon ecosystems, which are needed for recognition of economic losses as part of blue carbon credit schemes.
- ii. Explore opportunities to develop a regional knowledge hub on Blue Carbon in the Wider Caribbean Region as a new UN Ocean Decade Action in collaboration with the Global Ocean Decade Programme for Blue Carbon (Go-Bc) and in support of nature-based solutions and related Blue Carbon actions.

Recommendation SC-IOCARIBE-XVIII.6

Regional Ocean Coordination Mechanism

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

Recalling the progress made in implementing the 10-year "Strategic Action Programme for the Sustainable Management of the Shared Living Marine Resources of the Caribbean and

North Brazil Shelf Large Marine Ecosystems" (the "CLME+ SAP", 2015 - 2025).

Acknowledging the opportunity to support the continued implementation of the SAP through the UNDP/GEF/UNOPS PROCARIBE+ Project: "Protecting and Restoring the Ocean's natural Capital, building Resilience and supporting region-wide Investments for sustainable Blue socio-Economic development."

Noting the recent operationalization of the "Coordination Mechanism to Support Integrated Ocean Governance in the Caribbean and North Brazil Shelf Large Marine Ecosystems", also further referred to as "Ocean Coordination Mechanism (OCM)".

Applauding the regional milestone achievement of the OCM's commencement, its importance as a key enabling platform/instrument for the advancement of the IOCARIBE mandate, and the region's pioneering role in a context of increasing global calls for enhanced multi-country, multi-agency and inter-sectoral coordination and collaboration on oceans.

Noting the upcoming First Meeting of the OCM Steering Group, "SGM1" (i.e. the Group of OCM Member Countries), scheduled to take place on 13-14 May 2025 ahead of UNOC3, to be hosted by the Government of Grenada.

Encourages IOCARIBE Member States to:

- i. Give due consideration to signing the OCM MoU and become an OCM Member at their earliest convenience, if they have not yet joined, with the support of the IOCARIBE Secretariat and the PROCARIBE+ Project Unit.
- ii. Participate in the First Meeting of the OCM Steering Group, either as OCM Members or as Observers.
- iii. Take advantage of the opportunities provided through the PROCARIBE+ funding to exploit, to the best possible extent, the added value of the OCM during the 2025-2028 period.

Recommends that the IOCARIBE Secretariat continue to effectively engage in the OCM activities in the region that contribute to the advancement of the IOC-UNESCO mandate.

Recommendation SC-IOCARIBE-XVIII.7

Marine Spatial Planning

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

Considering the importance of Marine Spatial Planning (MSP) for the effective implementation of national development strategies, along with those related to sustainable ocean economies.

Welcoming the establishment of a new Decade Collaborative Centre on sustainable ocean economies in Barcelona, Spain.

Recognizing the importance of incorporating climate change adaptation strategies in the development of MSP National Plans, as well as ensuring participatory development and the application of the ecosystem-based approach.

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Acknowledging the phased approach to MSP developed by the joint MSPglobal initiative of IOC-UNESCO and the European Commission's Directorate-General for Maritime Affairs and Fisheries (DG MARE).

Requests the IOCARIBE Secretary to:

- i. Seek training opportunities for MSP processes in Member States, including the application of global toolboxes.
- ii. Facilitate training for the implementation of economic valuation studies in support of MSP processes.

Encourages Member States to actively participate in national and regional MSP activities being carried out including those that are part of the PROCARIBE+ Project.

Recommendation SC-IOCARIBE-XVIII.8

UNDP/GEF/UNOPS PROCARIBE+ Project

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

Acknowledging the opportunity to support the continued implementation of the SAP through work carried out by the UNDP/GEF/UNOPS PROCARIBE+ Project: Protecting and Restoring the Ocean's natural Capital, building Resilience and supporting region-wide Investments for sustainable Blue socio-Economic development.

Noting the agreement established between the UNDP/GEF/UNOPS PROCARIBE+ Project and IOCARIBE for the implementation of marine spatial planning activities in the region.

Recommends that the IOCARIBE Secretariat continue to effectively implement activities of the PROCARIBE+ Project in the region contributing to the advancement of the IOC-UNESCO mandate.

Encourages IOCARIBE Member States to optimize their participation in the PROCARIBE+ Project and related activities to ensure timely delivery on the project objectives and results framework, maximizing the benefits from the PROCARIBE+ GEF grant for Member States and the region.

Recommendation SC-IOCARIBE-XVIII.9

Ocean Data and Information

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

Recognizing the work carried out by IODE in its three programme components: Ocean Teacher Global Academy (OTGA), the Ocean Biodiversity Information System (OBIS) and the Ocean Data Information System (ODIS) and their role in supporting the management and sharing of data and information in the region.

Acknowledging the importance of establishing National Oceanographic Data Centres

(NODCs) and Associated Data Units (ADUs) or collaboration agreements between Member States, where fully fledged NODCs may not be possible, such as in the case of SIDS.

Highlighting the benefits of the Ocean Teacher Global Academy (OTGA) in assisting with capacity development and continued training of people in the region.

Noting Recommendation SC-IOCARIBE-XVIII.4 on IOCARIBE-GOOS.

Expresses appreciation to the IODE-28 Committee, which welcomed the requests to:

- i. Support the integration and use of data and information from national projects within IOCARIBE Member States, as well as from the Secretariat's projects and programs, focused on addressing the region's needs.
- ii. Further cooperation beyond OTGA and ODIS during the 2026-2027 biennium, including the development of a regional OBIS network.
- iii. Support the IOCARIBE region in the development and implementation of a plan for SIDS to maximize their benefits from, and contributions to, ocean data and information management, using a value chain approach.

Invites Member States to:

- i. Assemble national working groups that identify required end use products and services (e.g. for decision-making support) and the data, information and ocean observations required to provide these.
- ii. Establish NODCs or ADUs as a means of strengthening national capacities in data and information management.
- iii. Collaborate with OBIS and ODIS by sharing available data and information with these programme components.

Requests the IOCARIBE Secretary to:

- i. Facilitate the development of courses supporting the use of data platforms, such as ODIS and OBIS, and supporting decision-makers in the use of data for reporting on Multilateral Environmental Agreements.
- ii. Promote greater interaction and alignment in the region between the activities of GOOS and IODE.
- Explore new opportunities for international collaboration that support the incorporation of IODE data platforms in the IOCARIBE region, including through the Ocean Coordination Mechanism.

Recommendation SC-IOCARIBE-XVIII.10

Sargassum Working Group

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

Recalling IOCARIBE Sub-Commission Recommendation XVI.7 encouraging the advancement of research and collaboration on Sargassum in the region.

Recognizing the detrimental impacts that Sargassum inundation are having on ecosystems and economies across the Wider Caribbean Region.

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Noting the development of innovative approaches to tracking and forecasting Sargassum influx, including applications of oil spill tracking technology and citizen science on beaches.

Acknowledging the report of the IOCARIBE Sargassum Working Group on work carried out during the current biennium and plans for the 2026-2027 biennium in collaboration with GEO Blue Planet.

Requests the IOCARIBE Secretary to:

- i. Enter into a Cooperation Agreement with GEO Blue Planet to jointly support and guide the continued work of the regional IOCARIBE Sargassum Working Group.
- ii. Seek opportunities to collaborate with other working groups in the region focused on Sargassum.

Recommendation SC-IOCARIBE-XVIII.11

Ocean Acidification

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

Recalling IOCARIBE Sub-Commission Recommendation XVI.4 encouraging further work on ocean acidification in the region.

Recognizing the work of the Global Ocean Acidification Observing Network (GOA-ON) including 14 scientists from IOCARIBE Member States.

Further recognizing the establishment of a Caribbean Hub of GOA-ON in 2023 with the participation of 28 members from 16 countries.

Acknowledging the progress of the REMARCO Project in addressing capacity limitations to respond to multiple stressors on the ocean.

Noting the limited resources in Member States in providing National Data Submissions to report on Sustainable Development Goal target 14.3.1 in response to ocean acidification.

Requests the IOCARIBE Secretary to:

- i. Strengthen regional connections with the GOA-ON community to support new membership from IOCARIBE Member States and partners.
- ii. Promote the Ocean Teacher Global Academy courses on Ocean Acidification to Member States and partners.
- Enter into a cooperation agreement with the International Atomic Energy Agency (IAEA) to facilitate processes for improved data sharing and support for maintenance of marine research equipment.
- iv. Expand relevant IAEA projects to other interested IOCARIBE Member States that are not yet involved, with the objective of strengthening national capacities.

Encourages Member States, especially those who have received equipment and training from the IAEA to submit monitoring reports to the SDG 14.3.1 portal.

Recommendation SC-IOCARIBE-XVIII.12

National Contacts

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

Recognizing the importance of effective communication between the IOCARIBE Secretariat, IOC-UNESCO, UNESCO and Member States.

Acknowledging the efforts made by the IOCARIBE Secretariat in maintaining direct contact with National Focal Points and in regularly requesting updated contact information from Member States.

Noting that the effectiveness of communication strategies differs across countries, with some responding better to top-down engagement at the ministerial level, while others benefit more from bottom-up communication at the technical level.

Requests Member States to update their designations and contact details of:

- i. National Coordinating Bodies for Liaison with the IOC-UNESCO.
- ii. National Commissions for UNESCO.
- iii. Permanent Delegations to UNESCO.

Recommendation SC-IOCARIBE-XVIII.13

Harmful Algal Blooms

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

Recalling the significant ecological and socioeconomic impacts of Harmful Algal Blooms (HABs) in the IOCARIBE region, and the strategic importance of coordinated monitoring and response systems.

Acknowledging the progress made by the ANCA Working Group in improving HAB-related data collection, analysis, and training initiatives in the region.

Recognizing the critical contributions of the IOC-UNESCO HAEDAT platform in supporting HAB monitoring and data sharing.

Further acknowledging collaboration with IAEA through regional projects such as RLA 7020, RLA 7022, RLA 7026, and RLA 7028 which enhance regional monitoring capacity for HABs and associated marine stressors using nuclear and isotopic techniques.

Noting the persistent challenges identified in the ANCA registry, including data gaps, underreporting, and low verification rates of ciguatera and other toxins.

Requests the IOCARIBE Secretary to:

- i. Coordinate a regional strategy to improve data entry, georeferencing, and verification within the HAEDAT platform.
- ii. Organize regional training courses and workshops (including virtual formats) focused on HAB monitoring, early warning systems, and data analysis.
- iii. Foster cooperation with IAEA and other partners to apply nuclear techniques for the detection and characterization of HAB toxins.

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iv. Increase regional awareness of the socioeconomic impacts of ciguatera and aerosolized toxins, especially in the tourism sector.

Encourages Member States to:

- i. Designate or reaffirm national ANCA focal points and facilitate regular national reporting to the HAEDAT platform.
- ii. Actively participate in regional training and contribute to collaborative research on HABs and their associated syndromes.
- iii. Promote intersectoral collaboration between environmental, health, and tourism authorities to mitigate risks from marine biotoxins.

Supports continued expansion of the ANCA network and the strengthening of regional HAB early warning systems through partnerships and knowledge exchange.

Recommendation SC-IOCARIBE-XVIII.14

All-Atlantic Ocean Research and Innovation Alliance

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

Noting the signature of the All-Atlantic Ocean Research and Innovation Alliance Declaration, the "ALL-ATLANTIC DECLARATION," which establishes the All-Atlantic Ocean Research and Innovation Alliance (AAORIA).

Welcoming the status of the IOC-UNESCO as Supporter of the Alliance.

Recognizing the importance of collaboration in the wider Atlantic for the work carried out by IOCARIBE.

Requests the IOCARIBE Secretary to explore opportunities where the activities of IOCARIBE could benefit from wider Atlantic cooperation by engaging with AAORIA.

Encourages IOCARIBE Member States to:

- i. Give due consideration to joining AAORIA and participating, where appropriate, in its actions, with the support of the IOCARIBE Secretariat and the IOCARIBE Member States in the Alliance.
- ii. Participate in the All-Atlantic Fora.

ANNEX III

STATEMENTS AND ADDRESSES

Statement by the IOCARIBE Chairperson, Dr Marck Oduber

Excellencies, Distinguished Delegates, Colleagues and Partners, and Online participants.

Good morning, good afternoon or good evening depending on your time-zone. It is my distinct honor and pleasure to address you as Chair of IOCARIBE in the vibrant and dynamic setting of Brazil—a nation whose deep cultural and scientific connection to the Atlantic is both historic and visionary.

On behalf of the IOC Sub-Commission for the Tropical Americas and Caribbean Region— IOCARIBE—I extend my deepest appreciation to the Government of Brazil, the Ministry of Science, Technology and Innovation, UNESCO Brazil, and to our esteemed Vice-Chair, Dr. Roberto de Pinho, for graciously facilitating the hosting of this important gathering and for your steadfast commitment to regional ocean cooperation. I would also like to express my heartfelt gratitude to the National Commission of UNESCO Aruba for affording me the opportunity and flexibility to actively contribute to IOC/UNESCO activities, beyond my responsibilities within the Natural Sciences section of UNESCO.

We gather at a moment of both urgency and opportunity. The ocean that unites us is warming from the surface to the abyss at an accelerating pace. It is acidifying—potentially more than doubling in acidity by the end of the century—while simultaneously losing oxygen and experiencing a rapid proliferation of plastic pollution, harmful algal blooms, and nutrient imbalances that threaten marine biodiversity, coastal livelihoods, and human health.

Yet despite these growing risks, the ocean also offers hope—hope for sustainable development, for resilient communities, and for new frontiers in science, innovation, and equity.

As President of IOCARIBE, I affirm our commitment to transforming the Tropical Americas and Caribbean Region into a beacon of ocean science for sustainable development—a true ocean knowledge region aligned with the goals of the UN Decade of Ocean Science (2021–2030) and the newly launched International Decade of Sciences for Sustainable Development (2024–2033). This ambition aligns with the Decade's Vision 2030 to deliver the science we need for the ocean we want. In doing so, we must prioritize equity, justice, and co-creation with the communities most affected by ocean change, including Indigenous peoples, women, and youth.

Since our last intergovernmental session, IOCARIBE has made significant strides. With the endorsement of our Medium-Term Strategic Science Plan (2023–2029), we are aligning regional efforts to:

- Strengthen ocean observing systems and digital infrastructure;
- Advance early warning systems for sargassum, HABs, and multi-hazard risks;
- Foster capacity development, with special attention to youth and SIDS;
- Promote inclusive ocean literacy, through the Tropical Americas and Caribbean Region SIDS Ocean Literacy Programme and the Blue Schools initiative;
- Support a sustainable and equitable ocean economy, informed by co-designed science and robust partnerships.

These priorities reflect the seven outcomes of the Ocean Decade, the ambitions of the Antigua and Barbuda Agenda for SIDS (ABAS) Declaration, and the scientific vision outlined in the Barcelona Statement and Venice Declaration.

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We are also guided by findings in the recent ECLAC report on the Caribbean Region and the SDGs, which underscores that despite progress in areas like education and gender, the region is lagging in climate action, marine conservation, and economic resilience. It is a reminder that without bold scientific cooperation and integrated regional frameworks, we risk falling short of the 2030 Agenda.

In this context, Sustainable Ocean Plans are essential tools for the Caribbean Region. These plans offer a strategic pathway for countries to manage marine resources equitably, reduce vulnerability, and unlock the blue economy through an ecosystem-based and cross-sectoral approach. IOCARIBE supports their development and integration across national and regional policy frameworks.

Let us be reminded: SIDS of the Tropical Americas and Caribbean Region are not small they are Large Ocean States. Their ocean space, cultures, and youth are central to solving the challenges ahead. But they cannot do it alone.

IOCARIBE is actively supporting their leadership by:

- Mobilizing partnerships like AAORIA, GOOS, and the Western Tropical Atlantic Regional Planning Group (WTA-RPG);
- Championing the UN Ocean Decade Roadmap for the Tropical Americas and Caribbean Region, ensuring that Decade Actions are co-designed and locally anchored;
- Empowering Early Career Ocean Professionals (ECOPs) and citizen scientists to bridge innovation and tradition;
- Facilitating access to global open science infrastructure, data sharing, and digital tools.

An encouraging trend is the growing number of countries in the region establishing their National Ocean Decade Committees. Recently, six (6) islands were added to this network through the establishment of the Kingdom of the Netherlands Ocean Decade Committee—a vital step that is strengthening ties between the islands and the European part of the Kingdom. This initiative is fostering deeper knowledge exchange, enabling joint action, and positioning the Dutch Caribbean as an active contributor within the broader regional and global ocean science community.

These efforts align with IOCARIBE's mission to build a truly inclusive and resilient ocean knowledge region, where small islands play a leading role in shaping global ocean futures. As called for in the IDSSD (International Decade of Sciences for Sustainable Development), our science must be more responsive, inclusive, and transdisciplinary. The problems we face—climate change, marine pollution, ocean health—do not fit neatly into sectors or disciplines. They demand collaborative solutions and holistic governance.

We are no longer in an age where ocean science exists for science's sake. We are in an age where science must serve people and planet—where our efforts must integrate community wisdom, local knowledge, and the voices of those most affected by ocean change.

As we prepare for the UN Ocean Conference 2025 in Nice, co-hosted by France and Costa Rica, we urge the global community to:

- Recognize the Tropical Americas and Caribbean Region as a region of solutions;
- Support regional Decade programs that emphasize resilience, inclusivity, and innovation;
- Partner with IOCARIBE to elevate science diplomacy, regional knowledge hubs, and the role of ocean literacy in governance.

Colleagues and friends, we have the frameworks, and vision. Now we must deliver — together. Let us co-create science that empowers us. Let us co-design policies that heal. Let us co-invest in futures where every child in the Caribbean and adjacent regions grows up ocean-literate, every coastal community has access to forecasts and data, and every decision-maker values the ocean as a living partner in sustainable development. Our decisions today must honor the rights of future generations to a healthy ocean and sustainable livelihoods.

At the end, I want to highlight key actions that our IOCARIBE Board and Secretariat must prioritize moving forward. We must actively engage in partnerships—with Georgia Aquarium, GEO Blue Planet, and One Ocean Hub—and ensure their formalization.

Strengthening our direct interaction with regional cluster and field offices, particularly the UNESCO Field Office in Jamaica, is essential to enhance coordination and foster more active participation with National Commissions (NatComs). We must also advance the implementation of the Sustainable Ocean Planning Strategy, support regional Decade activities through the TAC Coordination Office, and follow through on Marine Spatial Planning efforts. Reinforcing our collaboration with ICG CARIBE-EWS and the Sargassum Working Group, while expanding regional engagement in ocean data initiatives, will be critical to sustaining progress. Let us maintain momentum, deepen our partnerships, and stay united in delivering tangible results for our ocean region.

I also wish to express my sincere gratitude to our former Vice-Chair, Dr. John Cortinas of the United States of America, and our current Vice-Chairs, Dr. Roberto de Pinho of Brazil and Dr. Soraya Silva of Venezuela, for their invaluable support and leadership. Their dedication and collaboration have been instrumental in helping our Board advance the objectives and key results of IOCARIBE over the past biennium.

Thank you, obrigado, danki, gracias, bedank, merci beaucoup. Let us rise to the challenge and shape the future—for the ocean we need, and the future we want.

ANNEX IV

LIST OF PARTICIPANTS

CHAIRPERSON AND VICE-CHAIRPERSONS

Full Name	Gender	Email Address	Institution	Job Title	Representatio n	Role	Participation	Technical Science Meeting
Marck Oduber	Male	<u>m.oduber@un</u> <u>esco.aw</u>	Aruba National Commission for UNESCO	Programme Specialist	Aruba	Chair	In person	Yes
Roberto de Pinho	Male	roberto.depinh o@mcti.gov.br	Ministério da Ciência, Tecnologia e Inovação do Brasil (MCTI)	Science and Technology Analyst	Brazil	Vice-Chair	In person	Yes
Soraya Silva	Female	<u>soraya.j.silva</u> @gmail.com	Instituto Venezolano e Investigacione s Cientificas (IVIC)	Researcher	Venezuela	Vice-Chair	In person	Yes

DELEGATIONS

Full Name	Gender	Email Address	Institution	Job Title	Representatio n	Role	Participation	Technical Science Meeting
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Being Yeeting	Male	<u>byeeting@gm</u> <u>ail.com</u>	Nauru Fisheries and Marine Resources Authority	Fisheries Advisor	Nauru	Observer	Virtual	Yes
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Cadena		com		web IOCARIBE				
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RINCON								
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				Consultant and Advisor				
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			Science					
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ANNEX V LIST OF ACRONYMS

AAORIA	All-Atlantic Ocean Research and Innovation Alliance
ADS	Assistant Director General
ADUs	Associate Data Units
AMA	African Marine Atlas
ANCA	Algas Nocivas del Caribe
BBNJ	Biodiversity Beyond National Jurisdiction
CARIBE-EWS	Caribbean Warning System Caribbean Community
CARICOM	Caribbean Community
CARICOOS	Caribbean Coastal Ocean Observing System
CBD	Convention on Biological Diversity
CCO	Comisión Colombiana del Océano
CD	Capacity Development
CEP	Caribbean Environment Programme
CIMAB	Centro de Investigación y Manejo Ambiental del Transporte
CIMH	Caribbean Institute for Meteorology & Hydrology
CLME	Caribbean Large Marine Ecosystem
CLME+	Caribbean & North Brazil Shelf LME Project
CMA	Caribbean Marine Atlas
CRFM	Caribbean Regional Fisheries Management
DCO	Decade Coordination Office
DOOS	Deep-Ocean Observing Strategy
DOSI	Deep-Ocean Stewardship Initiative
ECOP	Early Career Ocean Professionals
EEZs	Exclusive Economic Zones
FVON	Fishing Vessel Ocean Observing Network
GBIF	Global Biodiversity Information Facility
GCFI	Gulf and Caribbean Fisheries Institute
GE-CD	Group of Experts on Capacity Development
GEF	Global Environmental Facility
GIS	Geographic Information System
Go-Bc	Global Ocean Decade Programme for Blue Carbon
GOA-ON	Global Ocean Acidification Observing Network
GoE	Group of Experts
GOOS	Global Ocean Observing System
GOs	Governmental Organizations
GPML-Caribe	Global Partnership on Marine Litter (Caribbean Node)

HAB	Harmful Algal Blooms
HAB-ANCA	Network of IOCARIBE HAB (Algas Nocivas del Caribe)
HAEDAT	Harmful Algae Event database
HAN	Harmful Algal News
HSA	High Seas Alliance
IAEA	International Atomic Energy Agency
ICAM	Integrated Coastal Area Management
ICG/CARIBE-EWS	Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions
ICHEWS	Integrating Coastal Hazard Early Warning Systems for the Tropical Americas and Caribbean
ICM	Integrated Coastal Management
ICZM	Integrated Coastal Zone Management
IMA	Institute of Marine Affairs (Trinidad & Tobago)
IMO	International Maritime Organization
INVEMAR	Instituto de Investigaciones Marinas y Costeras José Benito Vives de Andréis
IOC	Intergovernmental Oceanographic Commission
IOCARIBE	IOC Sub-Commission for the Caribbean and Adjacent Regions
IOCARIBE-GOOS	Clobal Occar Obcar ing System for the Caribbean and
IOCARIBE-GOOS	Global Ocean Observing System for the Caribbean and Adjacent Regions
IODE	•••
	Adjacent Regions
IODE	Adjacent Regions International Oceanographic Data and Information Exchange
IODE IPHAB	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms
IODE IPHAB ISA	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority
IODE IPHAB ISA ISDR	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction
IODE IPHAB ISA ISDR IWCAM	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management
IODE IPHAB ISA ISDR IWCAM LAC	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean
IODE IPHAB ISA ISDR IWCAM LAC LDCs	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries
IODE IPHAB ISA ISDR IWCAM LAC LDCs LME	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem
IODE IPHAB ISA ISDR IWCAM LAC LDCs LME MACHC	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem Meso American Caribbean Sea Hydrographic Commission
IODE IPHAB ISA ISDR IWCAM LAC LDCs LME MACHC MEAs	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem Meso American Caribbean Sea Hydrographic Commission Multilateral Environmental Agreements
IODE IPHAB ISA ISDR IWCAM LAC LDCs LME MACHC MEAS MHEWS	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem Meso American Caribbean Sea Hydrographic Commission Multilateral Environmental Agreements Multi-Hazard Early Warning Systems
IODE IPHAB ISA ISDR IWCAM LAC LDCs LME MACHC MEAS MHEWS MPA	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem Meso American Caribbean Sea Hydrographic Commission Multilateral Environmental Agreements Multi-Hazard Early Warning Systems Marine Protected Area Member States Marine Spatial Planning
IODE IPHAB ISA ISDR IWCAM LAC LDCs LME MACHC MEAS MHEWS MPA MS	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem Meso American Caribbean Sea Hydrographic Commission Multilateral Environmental Agreements Multi-Hazard Early Warning Systems Marine Protected Area Member States
IODE IPHAB ISA ISDR IWCAM LAC LDCS LME MACHC MEAS MHEWS MPA MS	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem Meso American Caribbean Sea Hydrographic Commission Multilateral Environmental Agreements Multi-Hazard Early Warning Systems Marine Protected Area Member States Marine Spatial Planning
IODE IPHAB ISA ISDR IWCAM LAC LDCS LME MACHC MEAS MHEWS MPA MS MSP NatComs	Adjacent Regions International Oceanographic Data and Information Exchange Intergovernmental Panel on Harmful Algal Blooms International Seabed Authority International Strategy for Disaster Reduction Integrated Watershed and Coastal Area Management Latin-American and the Caribbean Least Developed Countries Large Marine Ecosystem Meso American Caribbean Sea Hydrographic Commission Multilateral Environmental Agreements Multi-Hazard Early Warning Systems Marine Protected Area Member States Marine Spatial Planning National Commissions

NOAA	National Oceanic and Atmospheric Administration
NODCs	National Oceanographic Data Centres
NORAD	Norwegian Agency for Development Cooperation
OA	Ocean Acidification
OBIS	Ocean Biodiversity Information System
OBPS	Ocean Best Practices System
OCG	Observations Coordination Group
OCM	Ocean Coordination Mechanism
ODIS	Ocean Data and Information System
ODL	Ocean Decade Laboratory
OECMs	Other Effective Area-Based Conservation Measures
OIH	Ocean Info Hub
OOFS	Ocean Observing and Forecasting System
OSS	Ocean Science Session
OTGA	Ocean Teacher Global Academy
POGO	Partnership for Observation of the Global Ocean
PROCARIBE+	Programme for Caribbean Large Marine Ecosystem+
RDC	Regional Decade Committee
REMARCO	Research Network of Marine-Coastal Stressor in Latin America and the Caribbean
RSBs	Regional Subsidiary Bodies
SAP	Strategic Action Programme
SCOR	Scientific Committee on Ocean Research
SDGs	Sustainable Development Goals
SIBER	Southwest Indian Ocean Biogeochemical Ecosystem Research
SIDS	Small Islands Developing States
SIMARES	Sistema de Información y Monitoreo Ambiental de los Recursos del Mar
SOOS	Southern Ocean Observing System
SOPM	Sustainable Ocean Planning and Management
TAC	Tropical Americas and the Caribbean Region
ToR	Terms of Reference
UN	United Nations
UNDOS	United Nations Decade of Ocean Science for Sustainable Development
UNDP	United Nations Development Programme
UNDRR	UN Office for Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNEP CAR/RCU	United Nations Environment Programme Caribbean Regional Coordinating Unit

UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNOPS	United Nations Office for Project Services
WESTPAC	IOC Sub-Commission for the Western Pacific
WMO	World Meteorological Organization