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**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION**  
(of UNESCO)

**Thirty-second Session of the Assembly**  
UNESCO, Paris, 21–30 June 2023

**SUMMARY REPORT**

Decisions & Resolutions are published separately in document  
IOC/A-32/Decisions

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## 1. OPENING

1. The Chair, Mr Ariel Hernan Troisi, opened the session at 10:00 hrs on Wednesday 21 June 2023 in room II of UNESCO Headquarters, Paris.
2. After a few words of introduction, tributes were paid to the former IOC Chairperson Dr David T. Pugh (1943–2022, United Kingdom) and former IOC Executive Secretary, Dr Patricio Bernal (1945–2022, Chile).
3. Professor Edward Hill from the National Oceanography Centre of the United Kingdom delivered a statement to Dr David Pugh, Chairperson of the IOC from 2003 to 2007. Then Professor Hill, followed by Mr Maxim Polyva-Vitry, Deputy Permanent Delegate of the United Kingdom to UNESCO shared with the Council additional thoughts and memories.
4. Rear Admiral Arturo Oxley Lizana, Director of the Servicio Hidrográfico y Oceanográfico de la Armada de Chile, and Judge Maria Teresa Infante, member of the International Tribunal for the Law of the Sea, paid tribute to Patricio Bernal, IOC Executive Secretary from 1998 to 2009, in the presence of Mrs Araceli de Tezanos, Patricio's wife, who concluded the tribute with a few personal remarks.
5. The Assembly expressed its gratitude to the two men who have left a legacy within the IOC family.
6. The Chair asked participants to stand for a minute of silence to honour David and Patricio and other distinguished individuals who had participated in the work of the Commission and have passed away during this short intersessional period: Mr Vladimir Gruzinov (1935–2023, Russian Federation), Mr Robin Harger (1938–2023, Canada/New Zealand), and Mr Nicolay Mikhailov (1951–2023, Russian Federation).

## 2. ORGANIZATION OF THE SESSION

### 2.1 ADOPTION OF THE AGENDA

7. The Chair reminded that the Executive Council, acting as the Steering Committee for this Assembly session, examined the revised provisional agenda for the session and noted there was no request for supplementary items.
8. The Executive Secretary informed that the Secretariat received three draft resolutions and added that the one on Governance, Programming and Budgeting Matters of the Commission (agenda item 6.4) was in the purview of the Member States within the Financial Committee. The resolutions received were published in the Action Paper: the one on the status of IOCINDIO (agenda item 4.5); Improving the Climate Observations (agenda item 4.10); the UN Decade of Ocean Science for Sustainable Development (agenda item 4.12) and the one on under the purview of the Member States within the Financial Committee.
9. The Chair reminded that the Executive Council, acting as the Steering Committee for this Assembly session, examined the revised provisional timetable and made no recommendations on it to this Assembly.

### 2.2 DESIGNATION OF THE RAPPORTEUR

10. The representatives of seven Member States took the floor.
11. On a proposal of France, seconded by United Kingdom, Germany, Côte d'Ivoire, Ukraine, Morocco, and Egypt, Ms Devin Burri of United States of America was designated Rapporteur for the session.

## 2.3 ESTABLISHMENT OF SESSIONAL COMMITTEES AND WORKING GROUPS

12. Referring to the recommendations made by the Executive Council (EC-56/Dec.3.1) on this item, acting as the steering committee for the present session, the Chair reminded of the mandate of the three statutory sessional committees, the open-ended composition thereof, and the working arrangements made for their meetings. No working groups were established at the start of the Assembly. Two drafting groups were established during the course of the session to finalize the draft decisions on agenda items 4.2 (StOR) and 4.8.2 (Ocean observations in areas under national jurisdiction).

## 2.4 INTRODUCTION TO TIMETABLE, DOCUMENTATION, AND IOC MEMORIAL LECTURES

13. The Executive Secretary introduced this item.
14. Dr Ryabinin then referred to the Ocean Science Day programme on 22 June, which returned during this Assembly to initiate open discussion on the opportunities and challenges of ocean change adaptation and mitigation; preceded by a session highlighting IOC's current contributions to the UN Decade of Ocean Sciences for Sustainable Development.
15. The day provided a platform for the first IOC Mário Ruivo Memorial Lecture entitled 'I get by with a little help from my friends: Building the Kelp Forest Alliance, a collaborative global movement to protect and restore our underwater kelp forests', that was delivered by Aaron M. Eger, an Early Career Ocean Professional who was selected on a competitive basis on a subject related to the Ocean Decade. Dr Ryabinin welcomed a joint initiative with EurOcean and Portugal which pays tribute to late Professor Mário Ruivo's long-life commitment to ocean science and the sustainable development of the ocean, and his significant contributions to the work of IOC, ocean knowledge, international cooperation, capacity development and ocean literacy.
16. The IOC Anton Bruun Memorial Lecture 2023 "Nutrient pollution from land-based sources, the forgotten parameter" was delivered by Professor Alexander Bouwman (Netherlands Environmental Assessment Agency) as part of the Ocean Science Day. Professor Bouwman is recognized for his outstanding contribution to understanding and modelling of global flux of nutrients from land-based sources to the ocean. Concern over the impacts of altered nutrient inputs, N, P and Si, to coastal waters has led the UN to include an "Index for Coastal Eutrophication Potential" (ICEP) as indicator for SDG Goal 14.1.1 on eutrophication. IOC is contributing with UNEP by developing and validating ICEP, and Professor Bouwman and co-workers are key partners in this effort.
17. The IOC N.K. Panikkar Memorial Lecture 2023 was delivered by videoconference by Dr Kenneth Sherman, one of the fathers of the Large Marine Ecosystems (LME) concept which provides a tool for management of resources within ecologically-bounded transnational areas through five modules (productivity, fish and fisheries, pollution and ecosystem health, socioeconomics, and governance). Dr Kenneth Sherman is recognized for his role in the development of the LME concept and for its importance as a new framework for building the capacity to manage large areas of the ocean. Since 1997, IOC has promoted the Large Marine Ecosystem approach from a scientific point of view as well as in regions by contributing to the formulation and implementation of Global Environment Facility (GEF) LME projects. The Global Environment Facility has provided support (USD 285 million, leveraging USD 1.14 billion in financing from other partners) to 124 recipient countries to work together within 23 of the world's 66 LMEs.
18. Following their presentations, Professor Bouwman and Dr Shermann were awarded the IOC Anton Bruun Medal and the IOC N.K. Panikkar Medal, respectively. The United States of America delegation received the medal on behalf of Dr Shermann.

19. The Assembly adopted Decision A-32/2.

### **3. IOC MATTERS AND REPORTS**

#### **3.1 STATEMENT OF THE CHAIRPERSON**

20. In accordance with rule of procedure 8.1(a), Chair Ariel H. Troisi delivered an oral statement on recent developments in the work of the Commission and perspectives for the coming years (Annex \_\_\_\_).

21. The representatives of 10 Member States took the floor. Member States were unanimous in thanking the Chair for his insightful analysis and for his invaluable personal contribution to the successes of the past years.

22. Member States expressed concern over the ongoing serious damage to the ecosystems of the Black Sea, the Sea of Azov and the Gulf of Odessa, highlighting the urgent need to assess impact and provide assistance.

23. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Kenya, Portugal.

#### **3.2 REPORT OF THE EXECUTIVE SECRETARY ON THE WORK ACCOMPLISHED SINCE THE THIRTY-FIRST SESSION OF THE ASSEMBLY**

24. The Executive Secretary introduced this item using a PowerPoint presentation.

25. He started by recalling that 2022 has over and over been called a “super year” for the ocean, with ocean issues at the heart of the political attention and commitments on sustainability, biodiversity, and climate action. Leading the Ocean Decade implementation on behalf of the UN System, IOC provided a rallying point for Member States, scientists, the private sector, civil society and citizens wishing to join this transformative undertaking.

26. From important partnerships and commitments announced at the “One Ocean Summit” in Brest and the 7th ‘Our Ocean Conference’ in Palau (April 2022) and 8th in Panama (March 2023) that catalysed ocean commitments for and from SIDS, to the African Conference on Priority Setting & Partnership Development in Egypt (May 2022) that set up the Ocean Decade Africa Roadmap, IOC spared no effort to gather ocean stakeholders worldwide behind a common framework that ensures ocean science can fully support countries in creating improved conditions for sustainable development of the Ocean.

27. The Executive Secretary specifically highlighted the UN Oceans Conference in Lisbon, in June 2022 that gathered 24 Heads of State and Government and over 6,500 participants and adopted the Lisbon Declaration explicitly recognizing the importance of the Ocean Decade and the role of the IOC of UNESCO in its coordination. The Ocean Decade Alliance at its first in-person meeting launched a joint Call to Action for investment in ocean science, complemented by the Bouknadel Statement from over 20 major philanthropic foundations.

28. Through its participation in UNFCCC COP27 (November 2022), IOC raised awareness about the ocean to be integrated into the climate conversation, setting a solid course for the climate change agenda in Africa.

29. The 15th Conference of the Parties to the Convention on Biological Diversity (COP15) adopted the Kunming-Montreal Global Biodiversity Framework, including its marine dimension. UNESCO led the flagship ocean event, resulting in a significant increase in the visibility of marine and coastal issues and positioning IOC for a lead role in the GBF implementation.

30. The Executive Secretary provided detailed information on progress achieved across all IOC functions, highlighting the following major achievements.

31. As the custodian agency for SDG Indicator 14.3.1 on ocean acidification, the Commission continued to provide active support to its Member States, with progress well noted in The Sustainable Development Goals Report 2022.
32. With the dedicated pool of resources, the Ocean Teacher Global Academy platform delivered 46 e-learning courses, primarily focusing on developing countries, especially in Africa. Another area of focus was on building resilience to ocean-related hazards in SIDS of the Caribbean and Pacific regions.
33. To support monitoring, benchmarking and a shared knowledge base, UNESCO has also advanced in implementing its function to develop early awareness systems and preparedness to mitigate the risks of tsunamis and other ocean-related hazards.
34. The development of Ocean Data and Information System (ODIS) progressed with 57 pilot partner organizations from various regions being actively engaged. The IOC Project Office for IODE in Ostend will host a Decade Coordination Office (DCO) for Ocean Data Sharing as from 2023.
35. GOOS observations and predictions and a fit-for-purpose ocean observing system are fundamental to achieving the ambition of the UN Ocean Decade. Following the endorsement in 2021 of three ambitious Ocean Decade programmes, the Decade Coordination Office for Ocean Observing has been established.
36. With the dedicated pool of resources bolstered by funding from the Norwegian Agency for Development Cooperation (NORAD), IOC capacity development efforts focused on: (i) Priority Africa (ocean acidification and harmful algae, development of a database on training opportunities); (ii) tsunami ready communities in the Caribbean region; (iii) improved access to and sharing of ocean data and information in the Indian Ocean and Pacific region; (iv) development of video tutorials related to the Ocean Biodiversity Information System (OBIS); and (v) development of the Index for Coastal Eutrophication Potential (ICEP) as the Indicator for Sustainable Development Goal 14.1.1 (in cooperation with UNEP).
37. The Executive Secretary reported that the Ocean Decade also spurred innovative intersectoral work with other parts of UNESCO, focused on gender empowerment, youth engagement and ocean literacy. In this context, he attracted Member States attention to the document Guidance on dialogue between IOC programmes and Indigenous and Local Knowledge (ILK) proposed for Assembly's consideration (IOC/INF-1430). With ILK holders already identified as a key stakeholder group in the Ocean Decade Implementation Plan, this provides a formal framework for ensuring that "will make a crucial contribution to the Ocean Decade by contributing knowledge through the co-development, co-design, and co-delivery of the Ocean Decade Actions".
38. The Executive Secretary highlighted that in 2022, IOC has mobilized \$14,8 million from 30 donors, representing an increase by 100% compared to resources mobilized in 2021. He thanked Member States for their support and stressed the encouraging trend with financial contributions being provided not only by traditional donor countries but also from foundations and research institutes, attesting the growing interest of various stakeholders in ocean-related issues. Among many examples, EU funding allowed the launch of a new Maritime Spatial Planning Roadmap, a new MSP Global project and strengthening of OBIS, while fruitful collaboration with the Global Environment Facility, UNDP and UNEP continued under the IW:Learn umbrella with a new 4-year project and two new regional projects focusing on Large Marine Ecosystems in the Sargasso Sea and in the Black Sea.
39. The Executive Secretary stressed that the momentum is here for the ocean. And in its early months, 2023 has already delivered another major victory toward a healthy, sustainable ocean. After nearly two decades of negotiation, United Nations Member States agreed on a text for an international legally binding instrument under the United Nations



Convention on the Law of the Sea (UNCLOS) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction, the “high seas”.

40. With all these developments and the emerging consensus on what a more sustainable management of the ocean might look like, there are clear opportunities for IOC to support this emerging vision, making a strategic contribution within the UN system and at the service of its Member States.

41. The representatives of 33 Member States took the floor. They were unanimous in thanking the Executive Secretary and his team for the informative report reflecting the magnitude of the Commission’s achievements in the recent years, despite the challenging context of the Covid-19 pandemic. The Assembly expressed its profound appreciation to the Executive Secretary Dr Vladimir Ryabinin for his passion and dedication in his eight years of service that resulted in an unprecedented visibility of ocean science and of the IOC in the international development agenda. Member States also thanked the IOC Chair Captain Ariel Troisi for the years of commitment and leadership that fostered inclusive and solution-oriented cooperation.

42. In responding to some specific questions asked by Member States, the Executive Secretary further elaborated on the progress of the Ocean Decade, and in particular as regards the Early Career Ocean Professionals programme and Ocean Literacy.

43. In response to a question from Ukraine, Mr Julian Barbière, Head of IOC/MPR and Decade Coordinator a.i., confirmed that a proposal for a 4-year project focussing on ecosystem management of the Black Sea has been submitted to the Global Environment Facility, in cooperation with UNDP, in June 2023. The focus of the project is to strengthen biodiversity conservation in Ukraine, Türkiye and Georgia, supporting establishment of Marine Protected Areas, promoting regional cooperation in ecosystem-based management and capacity development, with the situation of conflict factored into the project risk strategy.

44. The Executive Secretary concluded by highlighting the transformative nature of the Ocean Decade and its potential to guide the governance of the ocean through peace-building science, moving from statements to actions, stepping up regional work and fostering ocean science-policy interface as a way to sustainable ocean management.

45. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Canada, Colombia, Côte d’Ivoire, France, Iceland, India, Kenya, New Zealand, Norway, Philippines, Portugal, Russian Federation, Spain, Thailand, United Kingdom, and USA.

46. The Assembly adopted Decision A-32/3.2.

### 3.3 REPORT OF THE IOC SUB-COMMISSIONS AND REGIONAL COMMITTEES

#### **3.3.1 IOC Sub-Commission for Africa and the Adjacent Island States: 7th session of IOCAFRICA, Nairobi, Kenya, 15–17 March 2023**

47. The IOCAFRICA Chair, Prof. Kouadio Affian (Côte d’Ivoire) presented an overview of the activities implemented by the Sub-Commission during the intersessional period 2021–2023, and the major outcomes of the Seventh session of the IOC’s Sub-Commission for Africa and the Adjacent Island States held from 15 to 17 March 2023, in Nairobi, Kenya.

48. He reported good progress in the planning of activities in the framework of the UN Decade of Ocean Science for Sustainable Development. The Ocean Decade Africa Roadmap (IOC/2022/ODS/36 Rev.2) was prepared through an inclusive consultative process, and the “African Conference on Priority Setting & Partnership Development for the UN Decade of Ocean Science for Sustainable Development” was hosted by the National Institute of

Oceanography and Fisheries in Cairo, Egypt from 10 to 12 May 2022 during which the roadmap was presented and opportunities for partnerships discussed. The Africa Ocean Decade Task Force comprising 14 experts and representatives of 6 organizations was established and commenced its assignment of supporting the development of regional Ocean Decade Actions.

49. Collaboration with the African Union Commission (AUC) was strengthened, in particular with the Global Monitoring for Environment and Security (GMES) & Africa Project, and AUC Division of blue Economy through the organisation of joint events in support of ocean observation and in the framework of UN Ocean Decade Africa Roadmap.
50. A comprehensive survey of the status of the ocean observations platforms in Africa and the Adjacent Island States was undertaken and a webinar organized to review the report on 23 March 2022. The participants agreed on the publication of the report on the African Ocean Observations Network, considering the discussions during the session. The workshop on the reactivation of the Ocean Data and Information Network for Africa (ODINAFRICA) was held on 24 March 2022. Participants agreed on the reactivation of ODINAFRICA to contribute to the Ocean Information Hub (OIH) as a regional and multi-thematic node that will improve online access to and synthesis of existing regional and national data, information and knowledge resources, including existing clearinghouse mechanisms. The implementation of the NORAD funded project on building capacity for ocean acidification research and observation and detection and early warning for harmful algae blooms is ongoing with the institutions in Côte d'Ivoire, Madagascar Morocco, Namibia and Nigeria, already participating.
51. The Marine Spatial Planning (MSP) continued with case studies on gender and poverty perspectives in Kenya, Madagascar and Tanzania implemented in collaboration with the Swedish Agency for Marine and Water Management (SwAM), and the first Regional Marine Spatial Planning forum for Africa and the adjacent Island states was established and held its first meeting in December 2022.
52. Prof. Affian noted that capacity development for marine science and technology continues to be a key area of focus for IOC in Africa and highlighted the establishment of a new portal on training facilities (<https://africa.marinettraining.org>), as well as the conduct of several training workshops during the intersessional period.
53. He expressed his appreciation to partners that have provided support for implementation of IOCAFRICA programmes, especially the Governments of Flanders (Belgium), China, Kenya, Norway, Sweden, the African Union Commission, and the Western Indian Ocean Marine Science Association and invited other Member States and organizations to partner with IOCAFRICA.
54. Prof. Affian informed the Assembly that the IOC's Sub Commission for Africa and the Adjacent Island States at its seventh session (15–17 March 2023, Nairobi) had adopted four recommendations on: (i) Regional Implementation of the United Nations Decade of Ocean Science for Sustainable Development; (ii) GOOS–Africa; (iii) Partnerships and Resource Mobilization; and (iv) IOCAFRICA Work Plan and Budget for 2023–2025.
55. He highlighted some of the activities proposed during the session, including: strengthening of the Ocean Observations in Africa and the Adjacent Island States-including the GOOS-Africa coordination office hosted by CURAT in Abidjan, Côte d'Ivoire; reactivation of the Ocean Data and Information Network to support the development of a regional Ocean Information Hub; Harmful Algal Bloom and Ocean Acidification programmes; support for Marine Spatial Planning; development and implementation of Ocean Decade Actions for the region and establishment of the regional Decade Coordination Office; and the organisation of an African Ocean Decade Conference in 2025 to mark mid-point of implementation of the UN Ocean Decade and the end of the African Decade of Oceans and Seas (2015–2025).

56. Prof. Affian recognized the limited regular programme resources available for the implementation of these programmes and urged Member States to increase extra-budgetary support to enable the Sub-Commission to implement its programme and strengthen capacities for marine science and technology in the region. Prof Affian urged the Commission to increase the regular budget allocation to IOCAFRICA to reflect its global priority status within IOC and UNESCO.

57. Prof. Affian acknowledged and thanked Mr Mika Odido for his work on the coordination of IOCAFRICA programmes and presented him with a certificate of recognition.

58. The representatives of 10 Member States took the floor.

59. The Assembly commended the considerable progress that has been made in implementation of the IOCAFRICA work plans, and noted the challenges and limitations faced by the IOCAFRICA secretariat, including staffing and budget limitation.

60. Several delegations congratulated the out-going Head of IOCAFRICA secretariat, Mika Odido, on his contribution to the establishment of the IOCAFRICA secretariat and implementation of IOC programmes in the region and wished him well in his future undertakings.

61. Several Member States made commitments of support for IOCAFRICA which, *inter alia*, include: United States of America for strengthening ocean observations and capacity development, Spain on multi-disciplinary studies in the Canary Current region and capacity development through AECID focussing on invasive species, Kenya to continue the secondment of staff to the Sub Commission, and China for capacity development.

62. The Assembly welcomed these commitments and urged other Member States to provide support for the implementation of the programmes of the Sub-Commission.

63. The Assembly welcomed the development of the Ocean Decade Africa Roadmap and its nine priority themes that provide the framework for implementation of the Ocean Decade in the region.

64. The Assembly emphasised the importance of inter-regional collaboration in addressing global challenges and encouraged IOCAFRICA to strengthen their communication with WESTPAC, IOCARIBE and other RSBs for experience sharing and regional coordination.

65. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Kenya, Spain and USA.

66. The Assembly adopted Decision A-32/3.3.1.

### **3.3.2 IOC Sub-Commission for the Western Pacific: 14<sup>th</sup> session of WESTPAC, Jakarta, Indonesia, 4–7 April 2023**

67. Dr Kentaro Ando, Chair of WESTPAC introduced this agenda item and presented the major advances over the last intersessional period and key results of the 14th WESTPAC Intergovernmental Session (4–7 April 2023).

68. He highlighted that the Sub-Commission has increased substantially its effort during the intersessional period in assisting countries to address their development challenges and taking the lead to mobilize support and actions for the Ocean Decade in the region.

69. The WESTPAC Chair highlighted a number of initiatives aimed at: (i) minimizing and addressing the impacts of ocean acidification, with an international calibration exercise on pH and Total Alkalinity measurement conducted in May–November 2022, and tailored national ocean acidification training and stakeholder engagement workshops developed and organized

in Malaysia (Penang, 20–22 September 2022), Viet Nam (Nha Trang, 13–15 October 2022), and Thailand (Phuket, 2–4 November 2022); (ii) advancing the application of remote sensing for sustainable development, with an International Webinar Series on “Advancing the application of remote sensing for sustainable development of ocean, marine and coastal resources” organized from 22 November to 20 December 2022, and the demonstration of remote sensing application to coastal habitat mapping for Thailand authority in 2021–2022; (iii) delivering knowledge and outreach services on harmful jellyfish for public health, with a General Management Guide for Harmful Jellyfish Stings in the Western Pacific and Adjacent Areas published in December 2022; and (iv) accelerating marine spatial planning in the Western Pacific, with the first-ever Regional MSP forum organized on 16 December 2022 thus marking the beginning of the implementation of the UN Ocean Decade Action 21: Accelerating MSP in the Western Pacific and adjacent areas.

70. The Sub-Commission has been taking the lead in the region, motivating and engaging experts, institutions, and countries in the work of the Ocean Decade. In this respect, the following key activities were undertaken: (i) the UN Ocean Decade Kick-off Conference for the Western Pacific and its Adjacent Areas (25–26 November 2021) with the participation of nearly 3,000 participants coming from various ocean communities, which featured high-level commitments from national governments and UN agencies, ocean stakeholder roundtable dialogue, and 17 Decade Action Incubators; (ii) development of four Ocean Decade Actions, including one Decade Programme-UN 24 entitled “Second Cooperative Study of Kuroshio and Adjacent Regions—from its sciences to human well beings”, and three Decade Projects: UN 21-“Accelerate Marine Spatial Planning in the Western Pacific”; UN 22- “Stem the tide of Asia’s riverine plastic emission into the ocean”, and UN 23—“Accelerating capacity development transformations in the Western Pacific—Regional Network of Training and Research centres (RTRCs) on Marine Science”; and (iii) establishment of a Decade Coordination Office (DCO) for the region, as an extension of the current WESTPAC Office, with a mandate to develop, coordinate and implement Decade Actions in the region.
71. The WESTPAC Chair informed the Assembly that the Sub-Commission has been continuously implementing the IOC Capacity Development Strategy (2015–2023), and developed specific capacity development actions in the framework of the Ocean Decade and 2022 UN Ocean Conference process. He highlighted key training initiatives by the Regional Training and Research Centre on Marine Biodiversity and Ecosystem Health (RTRC-MarBEST), the Regional Training and Research Centre on Ocean Dynamics and Climate (RTRC-ODC) and the Regional Training and Research Centre on Coral Reef Restoration and MPAs. Meanwhile, two other RTRCs, namely on Marine Toxin and Food Security and Plastic Marine Debris and Microplastics, have taken the pandemic as an opportunity to co-design their training modules and plans with relevant stakeholders and partners. In mid-2022, a proposal was made by the City University of Hong Kong to host a Regional Training and Research Centre on Coastal Contaminant Monitoring and Marine Innovative Technologies (RTRC-Coastal COMMIT) and presented at the WESTPAC-XIV Session.
72. The WESTPAC Chair reported on the major results of the Fourteenth Intergovernmental Session (WESTPAC-XIV, 4–7 April 2023). Throughout the session, Member States expressed their strong support for the effort of the Sub-Commission in assisting countries to address their development challenges, and for its leading role in coordinating the implementation of the Ocean Decade. During the session, the Sub-Commission convened a Senior Governmental Officials Roundtable (SGOs Roundtable) with its 2023 SGOs Jakarta Statement adopted, and a side event on National Decade Committees Forum to share experiences and lessons learned in the NDC development and discuss how NDCs could further demonstrate their values in the Ocean Decade.
73. Regarding the 2nd UN Decade Regional Conference in conjunction with the 11th WESTPAC International Marine Science Conference, the Sub-Commission expressed its appreciation to the Government of Thailand for its firm commitment to host the two events on 22–25 April 2024 in Bangkok, as well as the preparations made so far. The 1st Announcement was widely circulated in early June 2023.

74. He informed the Assembly that, to serve the needs of IOC Member States in the region, the Sub-Commission decided to establish four working groups on blue carbon, small island research and development, citizen science, and local and traditional knowledge, respectively. Having reviewed the excellent evaluation results, the Sub-Commission also unanimously endorsed the RTRC-Coastal COMMIT proposal.
75. Recognizing the pivotal role of the WESTPAC Office/Decade Coordination Office in the overall development, implementation, coordination, and organization of the WESTPAC activities and Ocean Decade Actions, the Sub-Commission expressed its deep concern over the understaffed and overstretched situation of the Office. It strongly encouraged Member States to consider the possibility of providing human or financial resources to the Office to sustain the momentum of the Sub-Commission and provide impetus for the Ocean Decade.
76. The Sub-Commission finally elected, by acclamation, Kentaro Ando from Japan as Chairperson, Aileen Tan Shau Hwai from Malaysia and Faldi Syamsudin from Indonesia as Vice-Chairpersons of the Sub-Commission for the next intersessional period; and accepted the offer of the Government of Japan to host the 15th Intergovernmental Session of the Sub-Commission in early 2025.
77. The representatives of seven Member States took the floor. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Japan, Philippines, Republic of Korea, and Thailand.
78. The Assembly adopted Decision A-32/3.3.2.

**3.3.3 IOC Sub-Commission for the Caribbean and Adjacent Regions:  
17<sup>th</sup> session of IOCARIBE, Bogota, Colombia, 9–11 May 2023**

79. The IOCARIBE Chair, Dr Marck Oduber, introduced this agenda item and presented the major advances over the last intersessional period and key results of the 17th IOCARIBE Intergovernmental Session (9–11 May 2023).
80. He reported excellent progress in the planning of activities in the framework of the UN Ocean Decade. Seven online workshops were organized for each of the seven Working Groups (conducted July–October 2021). The IOCARIBE Regional Conference (16–17 December 2021) marked the launch of the UN Ocean Decade in the Region. Since then, seven projects and one activity have been endorsed by the UN Ocean Decade. Work is ongoing to establish an Ocean Decade Coordination Office within the IOCARIBE Secretariat, and Terms of Reference have been completed to reconstitute the TAC Regional Planning Group into a UN Ocean Decade Taskforce, with expanded capacity to understand the ocean science needs of all stakeholders.
81. Dr Oduber noted that the Caribbean Region is heavily dependent on coastal and marine tourism, especially island States such as Aruba. Therefore, in the reorientation of IOCARIBE initiatives within the framework of the UN Ocean Decade must include a strategy for island States to participate fully in the work of the IOC. He urged the Assembly to adopt the Draft Rolling Operational Strategy for SIDS in this context.
82. Dr Oduber stated that Dr John Cortinas, IOCARIBE Vice-chairperson, leads the reorganization of the IOCARIBE-GOOS Steering Group to improve regional ocean observations and to explore the best strategy for IOCARIBE-GOOS. A pilot project is proposed, to build supporting governance, physical and social infrastructure and conduct a long-term, critical-region sampling programme using Autonomous Ocean Gliders, High-Frequency Radars (HFRs), and other existing and developing technologies to provide real-time information resulting in hurricane forecast improvement.
83. The Harmful Algal Blooms (HAB-ANCA) Initiative remained strong given the potential challenges of marine poisoning and the deaths of people in Caribbean countries. In 2021, the

group contributed to the Global HAB status report 2022 and conducted the first HAB course using Virtual Reality. The main objective for the new biennium is to link IOCARIBE-ANCA with the plans and objectives of the Decade of the Oceans, and for the group to explore linkages with the Sargassum working group.

84. The Sargassum effort aims to support an integrated approach to monitor and forecast concentrations of Sargassum based on publicly available data, such as satellite data and in situ data from countries with open data sharing policies and promote best practices for managing and using Sargassum. There is a need to develop a basin-wide forecasting system to tackle possible observing gaps and indicate where long-term measurements need to take place to improve information products. The goal is to produce an integrated and multi-lingual Sargassum Information Hub for the sharing of this information. NOAA's CoastWatch Programme continues to provide training for the use of remote sensing to monitor and forecast onshore Sargassum mats.
85. The Wider Caribbean region has recently experienced challenges as a result of oil spill accidents and lacks an operational oil spill surveillance service despite these acknowledged threats. Three Trinidad and Tobago (TT) departments have been working together since 1st July 2021, after obtaining training from US NOAA, to build a near-real time satellite oil spill monitoring programme for their Exclusive Economic Zone (EEZ). This is a first for the Caribbean region. The organizations are the Environmental Management Authority (EMA), the Ministry of Energy and Energy Industries (MEEI), and the Institute of Marine Affairs (IMA). The majority of the satellite oil spill products use freely accessible satellite radar and optical imagery.
86. He stressed the importance of capacity development for the region, evidenced throughout all programmes. The LAC Ocean Teacher Global Academy regional HUB hosted by Invemar, Colombia conducted 9 courses for 317 students in 2021; and 7 courses for 237 students in 2022—a total of 554 students completed 16 courses.
87. Dr Oduber expressed his appreciation to partners that have provided support for the implementation of IOCARIBE programmes, including the Governments of Colombia, Barbados, Flanders (Belgium), Norway, Sweden, the European Commission, and the USA. He further invited other Member States and organizations to support the essential programmes for sustainable ocean planning and governance in the Wider Caribbean.
88. He informed the Assembly that IOCARIBE XVII (9–11 May 2023, Bogota) adopted 10 recommendations. The adopted recommendations focused on: (i) Regional Implementation of the United Nations Decade of Ocean Science for Sustainable Development; (ii) IOCARIBE-GOOS; (iii) Data, Information, Knowledge, and Tools; (iv) Awareness, (v) Collaboration, (vi) Communication, (vii) Youth Engagement, (viii) Stakeholder engagement, (ix) Governance, and (x) Prioritization.
89. He highlighted some of the activities agreed upon during the session, including strengthening governance and architecture for Ocean Observations; establishing the Ocean Decade regional governance structure; reconfiguring IOCARIBE regional programmes to align with the UN Ocean Decade; completing the Updated Strategic Science Plan and draft a Communications Plan that focuses on outreach to end-users; and ensure the inclusion of youth and ECOP in IOCARIBE work.
90. Dr Oduber emphasized that for the Sub-Commission to carry out its work plan and improve regional capacity for marine science and technology, extra-budgetary funding will be required. Additionally, he urged Member States to support IOCARIBE's efforts to save lives through early warning, promote sustainable ocean economies, and restore healthy ocean ecosystems.
91. The representatives of 8 Member States took the floor.

92. The Assembly commended the considerable progress that has been made in implementation of the IOCARIBE work plan, and welcomed both the new IOCARIBE Regional Coordinator, Dr Lorna Inniss, and the newly elected Board of Officers.
93. Several delegations re-emphasized the priorities identified at the IOCARIBE-XVII session, highlighting the inclusion of youth and general stakeholder engagement in regional programmes, and the importance of inter-regional interaction among sub-commissions. There was consensus that a priority on communications was necessary as the Sub-Commission aligns its work with the seven outcomes of the UN Ocean Decade.
94. Some Member States made commitments of support for IOCARIBE which include: Colombia for committing to assist with the establishment of National Decade Committees (NDCs), hosting the Secretariat of the Sub-Commission and continuing the secondment of staff; there was also a general call for voluntary contributions to the work of the Sub-Commission, particularly to address SIDS-specific challenges, and facilitate their engagement in ocean observations and the UN Ocean Decade.
95. The Assembly welcomed these commitments and urged other Member States to provide support for the implementation of the programmes of the Sub-Commission. The Assembly also urged that specific attention be paid by IOCARIBE to the UNESCO Draft Rolling Operational Strategy for SIDS.
96. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil and Colombia.
97. The Assembly adopted Decision A-32/3.3.3.

#### **3.3.4 IOC Regional Committee for the Central Indian Ocean: 8th Session of IOCINDIO, Dhaka, Bangladesh, 28–30 March 2023**

98. The IOCINDIO Chair, Rear Admiral Khurshed Alam (Retd) Md presented an overview of the activities that the IOC Regional Committee for the Central Indian Ocean (IOCINDIO) has implemented over the intersessional period (2021–2023), including the major outcomes of the 9<sup>th</sup> intergovernmental session of IOCINDIO (Dhaka, Bangladesh, 28–30 March, 2023) detailed in the document [IOCINDIO-IX/3s](#).
99. The Chairperson confirmed with enthusiasm to the Assembly that the Regional Committee has now fully completed its reactivation process and is now moving ahead in a proactive mode towards its transformation into an IOC Sub-Commission. He noted that since its Fifth Session considered as the first reactivation session in Chennai, India in 2016, the Regional Committee held regular consecutive intergovernmental sessions. In addition, Member States in the region are investing significant national financial and in-kind resources to maintain, reinforce and build on existing national research and academic institutional infrastructures in ocean and climate-related sciences, technologies, innovation, and governance. IOCINDIO Member States together with regional institutions, partners organizations and programmes are actively implementing major research, academic and development programmes related to the IOC programmes.
100. The IOCINDIO Chair informed the Assembly that furthering the execution of the IOCINDIO work plan, the Committee implemented during the reporting period, several programmes including the following:
- The first Summit in the Indian Ocean on Blue Economy towards the United Nations Decade of Ocean Science for Sustainable Development (2021–2030) on the 6 May 2021, which attracted participants from all IOC regions beyond the Indian Ocean region.
  - Capacity development activities led by the two IOC-related Category 2 Centres under the auspices of UNESCO, namely, the Regional education and research

Centre on Oceanography for West Asia (RCOWA) at the Iranian National Institute for Oceanography and Atmospheric Science in the Islamic Republic of Iran and the International Training Centre for Operational Oceanography (ITCOOcean) at the Indian National Centre for Ocean Information Services (INCOIS) in India.

- IOCINDIO workshop on “Methodologies and Approaches of coastal vulnerability and Advances, hosted by the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad, 13–17 December 2021.
- IOCINDIO through INCOIS co-organized with Mercator Ocean International, the First Mercator Regional Team meeting for the Indian Seas on 3 May 2023.

101. The IOCINDIO Chair further informed the Assembly that furthering the Decisions EC-55/3.5.2 and A-31/3.5.6, the IOC Executive Secretary established the Open-ended intersessional Working Group (OEIWG) on the status of the Regional Committee for the Central Indian Ocean that he had the honour to co-chair in tandem with the Chairperson of the IOC. The OEIWG held seven meetings from February 2022 to April 2023 and concluded its mandate with the unanimous adoption by acclamation of the text of the Draft Resolution for the establishment of the IOC Sub-Commission for the central Indian Ocean (IOCINDIO). The details of activities and results of the OEIWG are reported under the agenda item 4.5 below.
102. The IOCINDIO Chair reported the results of the 9<sup>th</sup> Intergovernmental Session of the IOCINDIO generously hosted by the Government of Bangladesh in Dhaka, 28–30 March 2023, and attended by scientists and experts, as well as high-ranking dignitaries and Plenipotentiary High Commissioners from IOCINDIO Member States. The session organized three unique events to ensure the regional ownership and leadership in ocean science for sustainable development, namely the Senior Governmental and Regional Officials’ Forum, the IOCINDIO Youth Forum and the IOCINDIO Symposium on Capacity Development that brought together the High Commissioners, the leaders of the UNESCO Category 2 Centres, UNESCO Chairs, and the Ocean Teacher Academy in the IOCINDIO region and the Youth networks.
103. IOCINDIO reviewed the implementation of its work plan 2022–2023 and established three intra-sessional Working Groups (WG) on major programmes: WG1 on Ocean policy, economy, and governance; WG2: Coastal Vulnerability, Sea-Level Rise, Storm Surges Prediction and Forecasting in the Indian Ocean; WG3: Capacity Development and Recommendations. The session amended its work plan with the integration of the outputs of the intra-sessional Working Groups and adopted the IOCINDIO work plan for 2023–2025.
104. Finally, the IOCINDIO Chair invited the Assembly to endorse the recommendations of IOCINDIO-IX and to identify allocations of financial resources from the IOC Regular Budget and extrabudgetary resources to support their full implementation at the level of the other IOC Sub-Commissions.
105. The representatives of six Member States took the floor.
106. The Assembly congratulated the IOCINDIO Officers for the progress achieved and their re-election. The Assembly expressed support to the IOCINDIO, its workplan and its transformation into an IOC Sub-Commission and called for collaboration and synergy among the IOC Regional Subsidiary Bodies, in particular adjacent Sub-Commissions (IOCAFRICA and WESTPAC), with a particular emphasis on existing programmes, such as IOGOOS, IIOE-2, RAMA, coastal vulnerability programmes, amongst a few.
107. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: India and USA.
108. The Assembly adopted Decision A-32/3.3.4.



### 3.4 REPORTS OF OTHER IOC SUBSIDIARY BODIES

#### 3.4.1 Warning and Mitigation Systems for Ocean Hazards

##### 3.4.1.1 Regional Early Warning Services

109. Mr Gérard Metayer (Haiti), elected Chair of the Intergovernmental Coordination Group for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS), introduced the report of ICG/CARIBE-EWS. He highlighted the results of the CARIBE WAVE 2023 exercises that mobilized 780,000 people in total on 23 March 2023.
110. He reported on other results of the 16th session of ICG/CARIBE-EWS, including the planning of the CARIBE WAVE 2024 and the realignment of the ICG/CARIBE-EWS Working Groups (WG) around the Sendai Framework for Disaster Risk Reduction, the Early Warnings For All Initiative (EW4All) and the ODTP pillars, including capacity development functions for all.
111. Professor Dwikorita Karnawati (Indonesia), Chair of the Intergovernmental Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS), informed the Assembly about recent developments and related progress in the Indian Ocean. She reported on the decisions and recommendations of the 13th Session of the ICG/IOTWMS.
112. All 22 Member States unanimously welcomed the reports of the ICG/CARIBE-EWS, ICG/IOTWMS, and later TOWS-WG.
113. The following Member States chose to provide records of their plenary intervention on agenda item 3.4.1 (regional services and global coordination) for the informational annex to the meeting report: Argentina, France, Republic of Korea, United Kingdom, and USA.
114. In particular, some Member States commended the work of the ICG/CARIBE-EWS, expressing the importance of the implementation of the UNESCO/IOC Tsunami Ready Recognition Programme (TRRP) to build awareness of, preparedness for, and resilience to the threat of tsunamis in the region. Costa Rica, Grenada, St. Vincent and the Grenadines, and France made explicit mention of the details of their national Tsunami Ready programmes and communities involved. Grenada thanked regional organizations for in-kind and financial support and noted that additional support was required to implement the goal of 100 percent at-risk communities prepared and resilient to the risk of tsunamis by 2030.
115. Grenada highlighted the huge response to CARIBE WAVE 2023 and the importance of CTIC and ITIC-CAR in implementing activities in the region.
116. Japan noted that through the Japanese International Cooperation Agency (JICA) it has supported the development of the Central American Tsunami Advisory Centre (CATAC).
117. In addition, three Member States commended the work of the ICG/IOTWMS. India expressed its continued support as a Tsunami Service Provider and the maintenance of its observation networks, including during the COVID-19 pandemic. It also participated in the six-monthly communications test and contributed to the UNESCAP-funded project for the North-West Indian Ocean. India supports as a priority the distribution of maritime products to NAVAREA coordinators. Australia supported the flexibility of the TRRP to incorporate national initiatives. Australia advised of its commitment to extending its support for the UNESCO/IOC Secretariat Office for the ICG/IOTWMS for a further two years, noting it has provided this support since 2005.
118. Dr Dwikorita Karnawati, Chair of ICG/IOTWMS, commented that data is critical to having an effective global end-to-end tsunami early warning systems and timely warnings. She noted the WMO unified data policy.

119. The following Member States chose to provide records of their plenary intervention on this agenda item on regional services for the informational annex to the meeting report: Italy, Japan, New Zealand, and Türkiye.

*3.4.1.2 Global Coordination of Warning and Mitigation Systems for Ocean Hazards*

120. Dr Alexander Frolov, Chair of the Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG), introduced this item. He informed the Assembly about recent developments in Tsunami Warning and Mitigation Systems and reported on the decisions and recommendations of TOWS-WG adopted at its 16th meeting.
121. The TOWS-WG-XVI examined lessons learnt from past events including the massive eruption of the volcano Hunga Tonga-Hunga Ha'apai (HTHH) on 15 January 2022, which generated a tsunami that caused loss of life and damages across the Pacific. The eruption of the HTHH volcano has become a serious trial for the global Tsunami Warning Systems, focused primarily on the detection of tsunami waves generated by underwater earthquakes. Although a response proved difficult, the PTWC was able to develop interim procedures for responding to the HTHH tsunami and the ICG/PTWS was able to quickly implement them by 15 March 2022.
122. At its 16th meeting, the TOWS-WG recommended to the IOC Assembly that warning for tsunamis generated by volcanoes should be developed and coordinated within the framework of a UNESCO/IOC Global Tsunami and Other Ocean-related Hazards Early Warning System (GOHWMS) and also, if possible, within the framework of a multi-hazard early warning system.
123. Pursuant to IOC Assembly decision A-31/3.4.1, Dr Frolov reported that TOWS-WG recommended to the Assembly a 10-year Research, Development and Implementation Plan (RDI Plan) for the Ocean Decade Tsunami Programme (ODTP) contained in document IOC/A-32/3.4.1.2.Doc(1).
124. The RDI Plan provides a science-based roadmap for achieving two interrelated objectives of the ODTP. The first is to develop the capability of warning systems to send actionable warnings within 10 minutes of a tsunami from any sources with the least possible uncertainty, in order to evacuate as many people as possible from harm's way before impact. Achieving this 10-minute goal requires the development of existing monitoring systems and the implementation of new scientific and technological advances that will allow a shift from a capability based largely on seismic assumptions and large uncertainties to one based on real-time dynamic assessment and small uncertainties.
125. The second objective of ODTP is that 100 percent of communities at risk are prepared and resilient to tsunamis by 2030 through programmes such as the UNESCO/IOC Tsunami Ready Recognition Programme (TRRP), which was approved by the IOC Executive Council in 2022. It includes 12 Assessment, Preparedness and Response Indicators that help communities at risk build their capacity to respond effectively to tsunami warning and threats.
126. The implementation of the Research and Development Plan for the ODTP will also need to ensure that particular attention is paid to the needs of Small Island Developing States (SIDS) and Least Developed Countries (LDCs) and that priority is given to addressing and supporting these needs.
127. The UNESCO/IOC Tsunami Ready Recognition Programme (TRRP) was widely supported and commented upon by 14 Member States, including implementation and alignment with other national initiatives. Particular mention was often made of the value of UNESCO/IOC TRRP in assisting Member States to be prepared and resilient to the threat of tsunamis including through the CoastWAVE project funded by the European Union.

128. Several Member States and one Observer supported and commended the 10-year Research, Development, and Implementation Plan developed by the Ocean Decade Tsunami Programme Scientific Committee (ODTP-SC). Chile recommended the Plan serve as guide for implementation of new technologies for detection of tsunami events. India supported the accelerated implementation of Tsunami Ready. Grenada noted more support was required from donors to implement the goal of 100 percent at-risk communities prepared and resilient to the risk of tsunamis by 2030. Japan kindly requested that the IOC publish the final version of the Plan as soon as possible and supported the need to cover tsunamis generated by all sources being include in the Plan. Australia supported the Tsunami Ready Coalition initiative and congratulated Dr Laura Kong on her selection as Chair of the Coalition.
129. Many Member States commended the work of the Ad Hoc Team on tsunamis generated by volcanoes, expressing the importance of developing a global tsunami warning and mitigation system that incorporates tsunamis generated by non-seismic sources such as volcanoes. China welcomed the expansion of capability in warning and mitigating for tsunamis generated by non-seismic sources. Japan requested that the Secretariat publish and distribute the final version of the Ad Hoc Team on tsunamis generated by volcanoes report as soon as possible. New Zealand noted that their implementation of a network of tsunameters in the Southwest Pacific was utilised during the Hunga Tonga – Hunga Ha’apai volcanic eruption and tsunami of 15 January 2022 to confirm the generation of a tsunami in support of tsunami threat bulletins issued by the Pacific Tsunami Warning Centre (PTWC). Spain commended the work on tsunami risk, especially concerning tsunamis generated by volcanos, and requested a slight modification to the report. The European Marine Board noted the need to identify pre-cursors to cascading events as opposed to the HTHH event where different pre-cursors were studied independently.
130. In response to the statement from the United Kingdom about their willingness to provide data to support the development of a paper on the tsunami threat on coasts along the Southern Atlantic Ocean to assist concerned Member States of IOC on the decision to be part of the global Tsunami Warning and Mitigation System, Argentina recalled the United Nations resolution 2065 (XX) and subsequent resolutions of the General Assembly and its Special Committee on decolonization on the question of the Falkland Islands (Malvinas), where the existence of a sovereignty dispute is recognized.
131. Dr Alexander Frolov, Chair of TOWS-WG, commended New Zealand for noting the importance of integrating indigenous knowledge to strengthen tsunami early warning systems.
132. China noted its continued support and expansion of services provided by the South China Sea Tsunami Advisory Centre (SCSTAC) and to continue voluntary financial and in-kind contributions to the ODTP.
133. Ukraine recommended further IOC investment in SIDS as a priority.
134. The International Union on Geodesy and Geophysics (IUGG) noted its next biennial symposium will be held in Berlin in July 2023 and welcomed input from and collaboration with IOC.
135. The following Member States and one organization chose to provide records of their plenary intervention on this agenda item on global coordination for the informational annex to the meeting report: Chile, Colombia, India, Japan, Spain, and WMO.
136. The Assembly adopted Decision A-32/3.4.1.

### **3.4.2 International Oceanographic Data and Information Exchange: 27th Session of IODE, UNESCO, 22–24 March 2023**

137. Dr Paula Correa Sierra, IODE Co-Chair, introduced this item and informed the Assembly on the outcome of the 27th session of the IODE Committee and the preceding 2nd International Ocean Data Conference (IODC-II) on 20–21 March 2023.
138. The 2nd International Ocean Data Conference (IODC-II) was attended by 160 participants on site and 296 online (<https://oceandataconference.org>). The goal of IODC-II was to focus on the implementation of the commitments and main recommendations identified at IODC-I, and therefore it was organized around four sessions. Session 1 emphasized the importance of investing in systematic data integration services, providing Application Programming Interfaces (APIs), and using controlled vocabularies to achieve harmonized and FAIR data. It also highlighted the need for collaboration across communities with different technological maturity levels and keeping licensing as open as possible. Session 2 focused on improving cooperation mechanisms for multi-stakeholder partnerships, enhancing documentation of experiences, and embedding capacity development through transdisciplinary approaches. Session 3 called for more coordination and co-governance of digital interoperability norms and developing clear, common, and computable maps of data and service flows. It also highlighted the need to update metrics for success and rally potential co-implementers to challenge the Decade Data & Information Strategy's implementation plan. Session 4 emphasized the need for inter- and trans-disciplinary research practices to ensure diversity, transparency, equity, inclusion, and trust in ocean science. Social sciences were identified as a key support for improving ocean data use and addressing injustices and discrimination in data-related practices.
139. Dr Sierra reported that the IODE-XXVII session was attended by 112 participants from 38 IOC Member States and 16 organizations. It was regretted that this was lower than the 155 participants from 65 IOC Member States and 9 organizations during the online 26th Session. This could indicate that future sessions should possibly be organized as hybrid events.
140. As had been the case for the previous inter-sessional period, information on the work of the IODE National Oceanographic Data Centres (NODC) and Associate Data Units (ADU) was made available online through a dedicated webpage (<https://surveys.iode.org/iode-national-reports-2021–2022-survey-data-management-nodc-and-adu/>).
141. The Committee focused its attention on the following key issues: (i) status of the IODE network; (ii) progress review of the 15 IODE global projects; (iii) revision of structural elements of the IODE Programme; (iv) rules of procedure for IODE activities; (v) enhanced cooperation with other IOC programmes and other organizations; (vi) suspension of ODIN projects; (vii) IODE contributions to the UN Decade of Ocean Science for Sustainable Development; (viii) revision of the “IOC Strategic Plan for Oceanographic Data and Information Management (2017–2021)”; (ix) revision of the “IOC Oceanographic Data Exchange Policy”; (x) progress and way forward of the ODIS; and (xi) work plan and budget for 2023–2024.
142. During the past inter-sessional period two Member States (Panama, Portugal) established an NODC, and seven organizations successfully applied for ADU status, including one that also applied for accreditation (South Africa MIMS). One AIU (Associate Information Unit) application was received from the SEAFDEC Aquaculture Department (SEAFDEC/AQD) (Philippines) in 2021 and approved, bringing the total number of AIUs to 6. Three applications for (re)accreditation have been reviewed and recommended by the SG-QMF and the following NODCs / ADUs have received accreditation: (i) South African Marine Information Management System (MIMS) has been awarded the status of Accredited IODE Associate Data Unit; (ii) Marine Institute, Ireland has been re-accredited and maintains the status of Accredited IODE National Oceanographic Data Centre; and (iii) Norwegian Marine Data Centre (NMD) has been awarded the status of Accredited IODE National Oceanographic Data Centre. This brings the total numbers to 10 accredited NODCs and 2 accredited ADUs.

143. Dr Sierra recalled that IOC Decision A-31/3.4.2 had invited the Government of Flanders to continue hosting the IOC Project Office for IODE as well as its considerable financial and in-kind contributions and support and had agreed to the renewal of the Memorandum of Understanding between UNESCO/IOC and the Government of Flanders (Kingdom of Belgium) through the Flanders Marine Institute (VLIZ) that establishes the IOC Project Office for IODE in Ostend, Belgium. Dr Sierra informed the Assembly that a new agreement had been signed covering the period January 2022 to December 2026.
144. Dr Sierra informed the Assembly that the Committee had observed that naming IODE activities “project” created the perception that these are activities that are limited in duration and thus also with finite resources. This was hampering IODE efforts to partner with other programmes and organizations that do not wish to embark on collaboration unless long-term sustainability of this collaboration can be expected. For this reason, the Committee had decided to designate IODE activities as Programme Components, Programme Activities and Projects. The Committee had instructed the IODE Management Group to: (i) further clarify and finetune the naming definitions; (ii) propose the designation of all other IODE activities; and (iii) propose procedures to guide applications for new components, activities and projects, and submit these to the IODE Committee at its 28th Session in 2025. To further streamlining structure and operation of IODE activities, the IODE Committee adopted new “Rules of Procedure for IODE Programme Components, Programme Activities or Projects”.
145. Dr Sierra reported that cooperation with other IOC programmes as well as other organizations has considerably expanded including with HAIS, GO2NE, SDG 14.3.1 data portal, GOOS BioEco portal, various training courses in OTGA, and plans are underway with GO2DAT. IODE is also participating in various European Commission funded projects (mainly through OBIS). IODE continues to be a member of the World Data System (WDS), collaborates with FAO in the Aquatic Sciences and Fisheries Abstracts (ASFA) and is studying enhanced cooperation between OpenASFA and AquaDocs.
146. Regarding IODE’s contribution to the UN Decade of Ocean Science for Sustainable Development, Dr Sierra reported that IODE has successfully submitted 6 Decade Actions and in addition, 4 Decade Actions were submitted in cooperation with IODE. Furthermore, the IOC Project Office for IODE successfully applied to host the “Decade Coordination Office (DCO) for Data Sharing”. The DCU mobilized funding (for 11 months) for a DCO Lead and the vacancy was published in March 2023.
147. Dr Sierra then recalled that IODE at its 26th session in 2021 had tasked an inter-sessional working group with revision of the “IOC Strategic Plan for Oceanographic Data and Information Management (2017–2021)” (Decision IODE-XXVI.6.3). The new strategic plan for 2023–2029 is tabled for the consideration of the Assembly as Document IOC/A-32/3.4.2.Doc(1) following Recommendation IODE-XXVII/6.2 on 'the IOC Strategic Plan for Ocean Data and Information Management (2023–2029)'.
148. The revision of the “IOC Oceanographic Data Exchange Policy” is discussed under agenda item 4.4.
149. Dr Sierra reported on the considerable progress with the development of the IOC Ocean Data and Information System (ODIS). She recalled that the ODIS project had been proposed by IODE-XXVI through Recommendation IODE-XXVI.6.1.1 (Establishment of the IOC Ocean Data and Information System (ODIS)) and formally approved by the 31st Session of the IOC Assembly in June 2021 (Decision A-31/2.4.2). She further informed the Committee that the development of ODIS had gone hand in hand with the implementation of the Ocean InfoHub Project and the ODISCat (IOC Ocean Data and Information System Catalogue of Sources Project (ODISCat)) which had been established by IODE-XXV in 2019. Regarding ODISCat she noted that the catalogue contains 3105 references (April 2023) to online sources of data and information. A Decade Programme called “An Ocean Data and Information System supporting the UN Decade of Ocean Science for Sustainable Development (OceanData-2030)” has been registered with the UN Decade of Ocean Science for Sustainable

Development. The programme will play a central role in supporting the Ocean Decade mission to catalyse transformative ocean science solutions for sustainable development, connecting people and the ocean.

150. To conclude, the IODE Co-chair conveyed the concern of the Committee about the continued decline in UNESCO Regular Programme funds made available to IODE. The Committee stated that the current amount available had now IODE at a critical level, unable to implement its work plan and maintain the global network of data and information centres built over the past six decades. The current level of funding no longer allows capacity development at the regional level through the regional Ocean Data and Information Networks (ODINs), with adverse consequences on the equitable participation of all Member States in IODE and the level of data and information management activities that is necessary to beneficially contribute to the Ocean Decade.
151. The Committee thanked the Government of Flanders (Kingdom of Belgium) and Flanders Marine Institute (VLIZ) for their support as an essential contribution to the resources needed by the IODE Programme and called on the Government of Flanders (Kingdom of Belgium) and VLIZ to continue their support. The Committee also thanked the Norwegian Agency for Development Cooperation (NORAD) for its extra-budgetary funding support for OBIS and OIH/ODIS.
152. Through the voice of its Vice-Chair, the Committee also expressed disappointment that, despite several requests at previous sessions of the IODE Committee, no additional regular positions had been created and that other priorities had been decided upon. The Committee noted that lack of stable staffing at the IODE Secretariat could seriously harm IOC and its IODE as extra-budgetary funding by IODE's main donor(s) could no longer be expected to assure the long-term sustainability of its core programme activities such as OBIS, ODIS, OIH, OTGA, OBPS, and others.
153. The representatives of 15 Member States and 1 organization took the floor.
154. The Assembly congratulated Ms Paula Correa Sierra (Colombia) and Ms Lotta Fyrberg (Sweden) with their election as IODE Co-Chairs.
155. The Assembly thanked the Government of Flanders (Kingdom of Belgium) and NORAD (Norway) for their highly appreciated extra-budgetary support to IODE.
156. The Assembly called for an increased regular programme allocation for IODE as well as additional staff to ensure the long-term sustainability of OBIS. This additional regular programme position for the OBIS data manager will enable sustained technical support to the global network of national, regional and thematic OBIS nodes, to allow the expansion of OBIS with biological and ecosystem essential ocean variables of GOOS and to support the implementation of international agreements, such as the Kunming-Montreal global biodiversity framework under the CBD and the recent agreement on Biodiversity Beyond National Jurisdiction (BBNJ) under UNCLOS.
157. Several Member States informed the Assembly on the recent establishment of an IODE data centre or its accreditation and encouraged other Member States to also participate in IODE's global or regional activities and to strengthen the IODE network of OTGA Regional Training Centres and Specialized Training Centres.
158. The Assembly welcomed the progress made with the development of the Ocean Data and Information System (ODIS) and its regional implementation through the Ocean InfoHub (OIH) project.
159. The following Member States and organizations chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Argentina, Brazil, Canada, Chile, Colombia, United Kingdom, and PICES.

160. The Assembly adopted Decision A-32/3.4.2.

**3.4.3 IOC-FAO Intergovernmental Panel on Harmful Algal Blooms:  
16th Session of IPHAB, FAO, Rome, 27–29 March 2023**

161. Mr Joe Silke, past Chair of the IOC-FAO Intergovernmental Panel on Harmful Algal Blooms (IPHAB), presented the main outputs of the Sixteenth Session of the Panel (IPHAB-XVI), which was held at FAO Headquarters on 27–29 March 2023. He highlighted that this was the first session with FAO back as cosponsor of IPHAB as set out in IOC Assembly Resolution XVI-4.

162. The Panel reviewed the actions completed during the intersessional period, noted the progress made and that several of the UN Ocean Decade challenges are being addressed. The Panel concluded that the Decisions and Recommendations of the Fifteenth session (March 2021) had been implemented highly satisfactorily within the available resources.

163. The Panel took 11 decisions and endorsed two recommendations for the consideration of the IOC Assembly at its thirty-second session, and of the FAO Committee on Fisheries (COFI). The decisions concern: (i) Regional HAB Programme Development taking into account the difference of support for the various groups and networks depending on whether they are affiliated to a regional IOC subsidiary body or not; (ii) the continuation of the Task Team on the Early Detection, Warning and Forecasting of HAB Events; with new terms of reference; (iii) the continuation of the Task Team on the development of the Harmful Algal Information System and a periodic Global Harmful Algal Bloom Status Report with new terms of reference; (iv) the continuation of the Task Team on a Global Ciguatera Strategy for Improved Research and Management with new terms of reference with updated terms of references; (v) the continuation of the Task Team on Harmful Algae and Desalination of Seawater to formulate a proposal for a joint FAO/WHO water safety risk assessment for drinking water coming from desalination plants; (vi) the continuation of the Task Team on Biotxin Monitoring, Management and Regulations with new terms of reference; (vii) the continuation of the Task Team on Algal Taxonomy with new terms of reference; (viii) the continuation of the Task Team on Fish Killing Microalgae and Ecosystem Effects with new terms of reference; (ix) establishment of a Task Team on HAB Communication; (x) IOC-SCOR GlobalHAB beyond 2025; and (xi) the development of HAB Solutions (HAB-S) an UN Ocean Decade Programme Proposal.

164. In addition to the above, the Intergovernmental Panel submitted to the Assembly its planned intersessional activities in the form of a workplan and budget for the IOC HAB Programme 2024–2025 and recommended to it the continuation of IPHAB as a major technical subsidiary body with unchanged terms of reference.

165. The past Chair of IPHAB informed the Assembly that the Memorandum of Understanding between FAO, IAEA, IOC and WHO on Ciguatera Poisoning, presented to the 30th session of the Assembly as IOC-XXX/Inf.4, and subsequently approved by the UNESCO's Executive Board, had not been signed by WHO and therefore remains on hold. He also informed the Assembly that a MoU with FAO on IPHAB was being considered by all parties or as part of a wider agreement with UNESCO, as a follow-up to IOC Assembly Resolution XVI-4.

166. The Assembly was informed that Dr Philipp Hess (France) was elected as Chair and Dr Maggie Broadwater (USA) was elected as Vice-Chair.

167. The representatives of seven Member States took the floor.

168. The Assembly warmly welcomed FAO back as a partner in IPHAB.

169. The Assembly highlighted the importance of further development predictive modelling of HAB events and recognised how changes in the ocean-climate nexus and the interaction

between multiple ocean stressors, including ocean acidification, eutrophication and deoxygenation, are closely linked with changes in HAB event occurrences and their impacts on coastal ecosystems and the services of these to society. The Assembly welcomed the initiative by IPHAB to frame societal priority HAB challenges in the UN Decade HAB-Solutions Programme and thereby broaden partnerships and strengthen co-design for better mitigation of HAB impacts on marine ecosystem services (including aquaculture, seafood safety/public health, recreation & tourism, drinking water, biodiversity). The Assembly confirmed the focus of the Decade HAB-Solutions Programme on novel and transformational technologies, on demands for sharing of HAB data, and on strategies for safe seafood, drinking water and healthy coastal ecosystems.

170. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Chile, Colombia, France, Japan, and USA.

171. The Assembly adopted Decision A-32/3.4.3.

### 3.5 IOC REPORT TO THE 42nd GENERAL CONFERENCE OF UNESCO

172. The Executive Secretary briefly introduced this item, considering that the essence of the information contained in the draft report presented for Assembly's consideration has already been covered in his presentation under item 3.2. He also highlighted that a report on the implementation of the Ocean Decade will be presented to the UNESCO General Conference, primarily drawing on document IOC/A-32/4.12.Doc(1). Furthermore, a high level event tentatively entitled 'Ocean Science as a Pillar of Sustainable Ocean Management' will be organised on the margin of the IOC and SC Commission of the General Conference on 14 November 2023. The primary objective of the side event would be to highlight the fundamental importance of science-based sustainable ocean management to meet global, regional and national policy goals for climate, biodiversity, sustainable ocean economies, and coastal resilience, amongst others.

173. The representative of no Member State took the floor.

174. The Assembly adopted Decision A-32/3.5.

## 4. PROGRAMMATIC DEVELOPMENTS

### 4.1 REPORT OF THE IHO-IOC GEBCO GUIDING COMMITTEE AND OUTCOMES OF THE GEBCO GOVERNANCE REVIEW 2023

175. Mr Evert Flier, the Chair of the GEBCO Guiding Committee (GGC), introduced this item. He provided an overview of GEBCO developments for the period 2022–2023 as well as the outcomes of the 39th Meeting of the GEBCO Guiding Committee (November 2022, Southampton, United Kingdom). These include: (i) progress in raising the percentage of ocean floor mapped under GEBCO and Nippon Foundation-GEBCO Seabed 2030 Project; (ii) celebrations of the 120th Anniversary of GEBCO in 2023; (iii) the establishment of a new Sub-committee on Education and Training (SCET) to develop and coordinate the education and training strategy of the GEBCO Programme; (iv) the development of a GEBCO Charter/Code of conduct to consolidate the ethical expectations of all GEBCO's participants; (v) and the development of a GEBCO Mid-term Strategic Plan that clearly sets out the connections between the strategic objectives of the parent organizations (IOC and IHO), the future direction of GEBCO and the work of the subordinate bodies, initiatives and activities.

176. Mr Samuel Harper, GEBCO Secretary (IHO) and Chair of the GEBCO Governance Review Task Team presented a progress report on the conduct of the GEBCO Governance review initiated in 2022. He recalled that at the initiative of the parent organizations, the GGC agreed to launch a governance review of GEBCO, recognising the need to periodically review the governance of organizational frameworks and acknowledging recent important new



developments with the two parent organizations (e.g. IOC-IHO new strategic frameworks, the Ocean Decade, the Nippon Foundation/GEBCO Seabed 2030 Project). The Terms of Reference of the Review were presented to the IOC Executive Council at its 55<sup>th</sup> session (document IOC/EC-55/3.1.Doc(4)). The core elements of the review are stakeholder mapping and engagement, mapping of the existing organization and functional structure, a review of the legal structure and framework, a gap analysis of existing governance instruments, a review of the financial status and the identification associated of findings and recommendations. Due to the complexity of activity, and despite significant progress in completing core elements of the review, the GEBCO Guiding Committee still needs to discuss the final report and recommendations at its 40th Meeting in November 2023, prior to consideration by the parent organizations in 2024.

177. The representatives of 11 Member States and 2 organizations took the floor.
178. On the occasion of the 120<sup>th</sup> Anniversary of GEBCO, the Assembly recognised the contribution of GEBCO as the global authoritative body for seafloor mapping and since 2017 the new impetus generated by the Nippon Foundation-GEBCO-Seabed 2030 project, in terms of advancing the global target of seabed mapped to 24,9%.
179. The Assembly welcomed the progress in the implementation of GEBCO, including the new focus on capacity development needs of developing nations through the work of SCET, the development of the GEBCO Strategy, as well as the advancement of the governance review, which will clarify reporting lines and relationships amongst the GEBCO Sub-Committees, the Guiding Committee and the Parent organizations.
180. The Assembly further encouraged Member States and relevant data holders to share bathymetric data with GEBCO at the appropriate resolution defined by GEBCO standards.
181. The IHO Representative recalled that ocean knowledge—and GEBCO—is central to the strategic goals of IHO, and emphasized that hydrography and oceanography—via their applications and the common GEBCO programme—provide a unifying framework for scientists and stakeholders from diverse sectors to develop the scientific knowledge and the partnerships needed to accelerate and harness advances in ocean science. He re-affirmed the IHO commitment to IOC as co-parent organization in the evolution and delivery of GEBCO.
182. The Representative of DOALOS highlighted the importance of GEBCO in providing essential information for the process of delimitating the continental shelf of nations under UNCLOS, and referred to UNGA resolutions that have highlighted the contribution of GEBCO in advancing ocean knowledge.
183. The following Member States and one organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Canada, Chile, Italy, New Zealand, United Kingdom, and IHO.
184. The Assembly adopted Decision A-32/4.1.
- 4.2 PRESENTATION OF THE REVISED PILOT IOC STATE OF THE OCEAN REPORT
185. The a.i. Head of the IOC Ocean Science Section introduced the revised concept note for the IOC State of the Ocean Report (StOR)—detailed in document IOC/A-32/4.2.Doc(1)—following comments of the IOC Executive Council in 2022 as expressed in Decision IOC/EC-55/3.3 and the subsequent consultation of IOC Member States through IOC Circular Letter 2899 of 20 July 2022. A group of seven experts from seven IOC Member States and the IOC Secretariat provided inputs to the review process and constituted the basis of the StOR Advisory Board that will guide the preparation of the next edition.
186. Mr Henrik Enevoldsen emphasised that structuring the StOR around the Decade Outcomes rather than the Challenges is expected to increase the uptake of the presented

findings. It would strongly complement the other elements of the monitoring and evaluation framework of the Ocean Decade that focus on to meet the action-oriented Ocean Decade Challenges and on the key elements of the Ocean Decade enabling environment.

187. He then invited the IOC Assembly to endorse the updated StOR concept note ([IOC-32/4.2.Doc\(1\)](#)), which takes into account the review by IOC Member States and advice from the StOR Advisory Board, includes the themes and timetable for StOR, and outlines the production of the next edition, leading up to its planned launch at the Second Ocean Decade Conference in Barcelona in April 2024.
188. The representatives of 17 Member States, DOALOS and the WMO took the floor.
189. The Assembly commended the secretariat on the revised concept note and the establishment of the StOR Advisory Board, and noted that the format and structure of the StOR are moving in the right direction to be more distinct, ready for use by policymakers and to inspire debate. The Assembly concluded that the overall structure described made the StOR relevant both for the Decade and beyond.
190. The Assembly stressed the need to maintain the focus of the StOR so that it remains complementary to other larger UN driven assessments. Some Member States felt that the concept note did not yet provide sufficient information on how it could build on or contribute to other UN assessments, and how it would be complementary to the WOA. Similarly, some Member States expressed a desire to define more clearly the content and audience of the StOR.
191. The Assembly gratefully acknowledged the contribution of the Republic of Korea, which had seconded staff to support the development of the StOR.
192. The Assembly encouraged the StOR to be put online document on a digital platform to facilitate its use and communication on the StOR.
193. DOALOS informed the Assembly of the process of preparing the Third World Ocean assessment (WOA), which will provide an integrated global view on the ocean and sustainable development. Reference was made to the ongoing dialogue with UNESCO-IOC to align the WOA and the StOR and to ensure that they share common goals and are complementary.
194. WMO expressed its appreciation to contribute to the StOR and acknowledged IOC's contribution to WMO flagship products such as the State of the Climate Report, as well as the value, as a data source, of the joint activities carried out under GOOS, GCOS and WCRP.
195. A drafting group was set up to work on adjusting the decision and the StOR Advisory Board Terms of Reference in line with suggestions from, Australia, Brazil, Germany, Spain, and United Kingdom. Consensus was reached and the decision successfully re-drafted. Twelve Member States took part in the drafting group: Australia, Brazil, Germany, Canada, France, Japan, Norway, Portugal, Spain, Russian Federation, United Kingdom, and USA.
196. The following Member States and one organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Canada, Colombia, Japan, Kenya, Norway, Portugal, Republic of Korea, Spain, United Kingdom, USA, and WMO.
197. The Assembly adopted [Decision A-32/4.2](#).

#### 4.3 REVISION OF THE IOC CAPACITY DEVELOPMENT STRATEGY

198. Mr Alan Evans, Chair of the IOC Group of Experts on Capacity Development (GE-CD) introduced this item. He recalled that the Assembly, at its 31st session, through Decision A-31/3.5.3, had instructed the Group to submit the final draft of the IOC Capacity Development

Strategy for 2023–2030, together with a proposed outreach and communication plan to this session of the Assembly.

199. He reported that based on the recommendations of the GE-CD Task Team relating to the revision of the Capacity Development Strategy (IOC/INF-1396), the GE-CD established a Working Group on IOC CD Strategy revision which met three times in early 2022 to work on the draft IOC Capacity Development Strategy for 2023–2030.
200. He referred to Document IOC/A-32/4.3.Doc(1) 'IOC Capacity Development Strategy for 2023–2030' for the main body of the Strategy and its Addendum for extensive background information related to the process of reviewing and revising the strategy towards the IOC Capacity Development Strategy for 2023–2030. The key updates made in the strategy resulted in a slightly shortened version, removed references relating to selected projects, and were instead captured by the Ocean CD-Hub, an online compendium of CD opportunities worldwide. The Executive Summary incorporated an increased recognition that the ocean plays in political, commercial, science circles and society and the importance of capacity development in the delivery of the UN Ocean Decade. It also highlighted IOC's critical role in fostering international cooperation while using the strategy as the motivation to develop an implementation plan, such that IOC Capacity Development activities are clearly articulated and that the benefits are more readily identified.
201. The resulting IOC Capacity Development Strategy for 2023–2030 framework maintained the original six outputs, with 16 activities detailed in 31 actions. Mr Evans noted that while this framework provides general guidance on elements of an implementation plan yet to be developed, it explores venues for elevating IOC's impact to the required scale.
202. Mr Evans referred to Document IOC/A-32/4.3.Doc( 2) 'Outreach and Communications Plan to Promote the Visibility and Reach of the IOC Capacity Development Strategy'. The document lays out the recommendations from the Outreach Working Group on concrete plans to highlight the core messages of the IOC Capacity Development Strategy for 2023–2030, and proposed ways for the strategy to reach its target audience. Other than promotional materials and activities, the plan contains strategies for communications in two stages following the launch of the IOC Capacity Development Strategy for 2023-2030, utilizing existing platforms and resources of the IOC.
203. The GE-CD subsequently considered the results of the work of the Working Groups and their recommendations which resulted in the draft decision for consideration by the Assembly.
204. The representatives of 15 Member States and 2 organizations took the floor.
205. The Assembly thanked Dr Alan Evans, GE-CD Chair, for his presentation, and congratulated the GE-CD members for their efforts in revising and preparing the IOC Capacity Development Strategy for 2023–2030.
206. The Assembly recognized the central role of Capacity Development as a core function of the IOC and expressed full support in the IOC Capacity Development Strategy for 2023–2030. They welcomed the incorporation of important priorities such as data sharing, gender equality, SIDS, indigenous communities, ocean literacy and early career professionals in the strategy.
207. The Assembly appreciated the outreach and communications plan and encouraged the development of a clear implementation and work plan to achieve the outcomes of the strategy.
208. Several Member States identified their efforts and contributions to capacity development under the major outputs in the strategic framework such as through training programmes, fellowships, and research/training centres.

209. The Assembly appreciated the development of online platforms, such as the Ocean Info-Hub, Ocean Global Teacher Academy, Ocean Data Information System and Ocean Capacity Development Hub. They encouraged the utilization of the existing platforms in promoting related capacity development opportunities, sharing information and exploring collaboration and partnership.
210. The Assembly encouraged the IOC, its global programmes and regional subsidiary bodies (and secretariats) to deliver capacity development with more systematic approaches to ensure consistency between global, regional and national capacity development. They stressed the need to increase the effectiveness and impact of capacity development in the regions and recommended to further strengthen and synergize regional subsidiary bodies. Member States urged collaboration and partnership with other existing initiatives to avoid duplication and mutualize resources.
211. The Assembly called for adequate and sustainable regular programme funding for capacity development and its coordination to ensure robust and sustainable delivery of capacity development and help position the IOC strategically within the broader UN Oceans family.
212. The following Member States and two organizations chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Canada, Colombia, France, Indonesia, Japan, Kenya, New Zealand, Portugal, Spain, United Kingdom, USA, SCOR, and WMO.
213. The Assembly adopted Decision A-32/4.3.
- 4.4 REVISION OF THE IOC OCEANOGRAPHIC DATA EXCHANGE POLICY (2003, 2019)
214. Ms Lotta Fyrberg, Co-Chair of the International Oceanographic Data and Information Exchange (IODE) introduced this item. She recalled that the IOC Assembly at its 31st session (June 2021) recognized that a revision of the 20-year-old “IOC Oceanographic Data Exchange Policy (2003)” (with minor revision in 2019) was timely and adopted by Decision A-31/3.4.2 which established the IOC Intersessional Working Group on the Revision of the IOC Oceanographic Data Exchange Policy (2003, 2019) (IWG-DATAPOLICY) with the following mandate:
- (i) create an inventory of existing international, national and organizational data policies,
  - (ii) review and compare existing international, national and organizational data policies
  - (iii) develop a glossary with clear definitions (e.g., open vs free and unrestricted; data vs metadata vs information, licence options),
  - (iv) investigate the expansion of scope and name of the IOC Oceanographic Data Exchange Policy,
  - (v) gather advice from partner/sister organizations and recognized data provider/manager organizations,
  - (vi) organize a broad consultation on the proposed revised IOC Ocean Data Policy with Member States, IOC global and regional programmes,
  - (vii) submit a revised IOC Oceanographic Data Exchange Policy to the 32nd Session of the IOC Assembly (2023).
215. The working group had invited membership as instructed by IODE-XXVI and included representatives from IOC global and regional programmes (GOOS, IODE, HAB, Ocean Acidification, GOSR, Tsunami, IOCAFRICA, and WESTPAC). IOC Circular Letter 2864 of 9

November 2021 outlined the process to facilitate the work of the IWG-DATAPOLICY and timeline. Meetings of the working group were held in April and May 2022. An information session for IOC Member States was held on 21 October 2022, with 60 participants from 18 Member States. The final draft was prepared by the working group in December 2022 after which it was submitted to IODE at its 27th session in March 2023.

216. The representatives of 9 Member States and 1 organization took the floor.
217. The Assembly thanked Ms Lotta Fyrberg, IODE Co-Chair for her clear and concise report, and Mr Taco de Bruin, IOC Intersessional Working Group on the Revision of the IOC Oceanographic Data Exchange Policy (2003, 2019) (IWG-DATAPOLICY) as well as members of the Working Group for the considerable work involved in the drafting of the new policy.
218. The Assembly expressed appreciation for the attention given to FAIR (findable, accessible, interoperable, reusable), as well as CARE principles (Principles for Indigenous Data Governance) which will allow to fully engage with Indigenous Peoples rights and interests.
219. The Assembly and WMO (which adopted its unified data policy in 2021) welcomed the alignment between the new policy and that of WMO which will encourage closer collaboration between the two organizations.
220. The Assembly further welcomed the new policy as an essential framework to support the successful development of the IOC Ocean Data and Information System (ODIS) as well as the data ecosystem planned by the Ocean Decade which may also bring in socio-cultural and economic data, essential to complete a full value chain and a full range of societal benefits.
221. The following Member States and one organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Colombia, Japan, New Zealand, United Kingdom, USA, and WMO.
222. The Assembly adopted Decision A-32/4.4.
- 4.5 STATUS OF THE REGIONAL COMMITTEE OF THE CENTRAL INDIAN OCEAN (IOCINDIO)
223. The Chair, Mr Ariel Troisi, as the Co-Chair of the Open-ended intersessional Working Group (OEIWG) on the Status of the Regional Committee for the Central Indian Ocean (IOCINDIO) presented this item.
224. Mr Troisi recalled that at its 31st Session (UNESCO, Paris, 14–25 June 2021), the IOC Assembly considered the proposal of IOCINDIO for changing its status into an IOC Sub-Commission and, in its Decision A-31/3.5.6, decided to pursue further towards the establishment of the IOC Sub-Commission for the central Indian Ocean with the view to presenting a corresponding draft resolution to the IOC Assembly at its 32nd Session in 2023. The IOC Assembly at its 31st Session further decided to undertake the remaining steps towards establishing IOCINDIO as a Sub-Commission through an open-ended intersessional working group to work on: terms of reference; determination of the geographic scope; programme of work; the proposed projects and funding support; mechanisms for coordination with adjacent Sub-Commissions. The IOC Assembly, at its 31st Session subsequently requested the IOC Executive Secretary to: (i) establish an open-ended intersessional Working Group and invite Member States to participate in its work; (ii) work closely with the Government of India to explore appropriate arrangements for the establishment of the Regional Secretariat of the future IOCINDIO Sub-Commission; and (iii) report to the Executive Council, at its 55th session in 2022, on the status of implementation of the above decision.
225. The OEIWG was established following the IOC Circular Letter No 2872 of 4th January 2022 and comprised the following Member States and observers including Australia,

Bangladesh, Benin, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, France, India, Indonesia, Islamic Republic of Iran, Kenya, Kuwait, Madagascar, Maldives, Mauritius, Morocco, Oman, Pakistan, Philippines, Russian Federation, Saudi Arabia, Seychelles, Tanzania, Thailand, Togo, United Arab Emirates, United Kingdom and United States of America as well as the Vice-Chair of electoral Group IV of IOC, the Chairpersons of IOCAFRICA and WESTPAC, the former Officers of IOCINDIO, the Regional Coordination Operations Centre (RCOC) based in Seychelles and some individual scientists. The working group was co-chaired by both the Chairpersons of IOC and IOCINDIO. The Acting IOCINDIO Technical Secretary served as the Technical Secretary. The Executive Secretary also participated in and contributed to the OEIWG as well as a number of IOC staff occasionally.

226. The IOC Chair informed the Assembly that in his capacity as the Co-Chair of the OEIWG, he presented the Progress Report on the status of implementation of Decision A-31/3.5.6 to the IOC Executive Council, at its 55th session (UNESCO, Paris, 14–17 June 2022). He recalled that the Ambassador of Bangladesh to France and Permanent Delegate to UNESCO, H.E. Mr Khondker M. Talha, provided a complementary presentation on behalf of IOCINDIO Chair, the Co-Chair of the OEIWG, Rear Admiral (Retd), Khurshed Alam, who was unable to attend the 55th Session of the Executive Council.
227. The IOC Executive Council at its 55th Session, welcomed the Progress Report of the OEIWG (IOC/EC-55/3.5.2.Doc(1)), took into consideration the interventions of Member States, Chairpersons of IOCAFRICA, WESTPAC and Observers. There was a general support for the establishment of the IOCINDIO Sub-Commission, however, concerns were also expressed related to the areas of geographic scope and the potential undermining of the responsibilities of existing Sub-Commissions, notably IOCAFRICA and WESTPAC. The Executive Council subsequently, adopted Decision IOC/EC-55/3.5.2, which invited the intersessional working group to continue its consultations, including with the IOC Sub-Commissions, and to submit its final report and recommendations, for consideration by the IOC Assembly at its 32nd Session. Recommendations were to respect geographic coverage of other IOC Sub-Commissions and to define such necessary specifications of the potential future IOC Sub-Commission for the central Indian Ocean (IOCINDIO) as its title, terms of reference, programme of work with proposed projects and funding support and coordination mechanisms with adjacent Sub-Commissions on geographical areas of common interest while avoiding duplications and overlaps.
228. Finally, Mr Troisi informed the Assembly that the OEIWG held seven online consultation meetings from 28 February 2022 to 13 April 2023 and concluded its work with the unanimous adoption of the draft Terms of Reference of the IOC Sub-Commission for the central Indian Ocean on the understanding, with a consensual agreement that it should not interfere with, undermine, diminish, or weaken the work and/or responsibilities of existing neighbouring IOC Sub-Commissions, especially IOCAFRICA and WESTPAC. The OEIWG further agreed that the future IOCINDIO Sub-Commission should maintain the current geographic coverage of the Regional Committee limited to the central Indian Ocean. For the purposes of this document, "central Indian Ocean" refers to the area of the Indian Ocean adjacent, to the West, with that of IOCAFRICA, and to the East, with that of WESTPAC. Adequate coordination with adjacent Sub-Commissions is proposed to avoid overlaps, focusing on cooperation, collaboration, and integration of IOC activities for the benefit of all regions.
229. The representatives of seven Member States and one Sub-Commission took the floor.
230. The Assembly supported the report of the IOC Chairperson and commended the leadership of the Co-Chairs of the OEIWG, as they ably steered the Working Group in consensual manner and avoided overlaps with adjacent Sub-Commissions.
231. The Assembly welcomed the final report of the Working Group and the proposed draft Resolution, encouraging cooperation, collaboration, synergy, and coordination among IOC Regional Subsidiary Bodies. The Assembly considered that the Regional Subsidiary Bodies

should play key roles at regional level for the development of ocean sciences, promote ocean knowledge and literacy and vigorously tackle issues of climate change and biodiversity loss, with the view to help defining scientific tools that will enhance ecosystems resilience.

232. The Assembly further highlighted that the transformation of the IOCINDIO Committee into an IOC Sub-Commission is quite opportune as it will foster cooperation with regional organizations and will contribute to the elevation of existing programmes such as the IORA Blue Carbon Hub throughout the Indian Ocean and will also reinforce synergies with existing Tsunami Centres in the Indian Ocean. Supporting Member States indicated that they will continue investing in regional programmes such as IOGOOS, RAMA, IIOE-2, GO-AN and other emerging issues with innovative approach to training programmes through the Category 2 Centres under the auspices of UNESCO, the UNESCO Chairs and the Ocean Teacher Global Academy, as well as through national oceanographic facilities.
233. After a short introduction to the Draft Resolution one Member State suggested to include a paragraph to reflect the importance of the Final Report of the Open-ended intersessional Working Group which provided transparent information on the conduct, operations, consensual results, and outputs focusing on synergy, cooperation and collaboration and thus avoiding overlaps with clear scientific missions leading to its unanimous adoption at the level of the Working Group.
234. Member States wished a full success to the IOCINDIO Sub-Commission.
235. The IOC Chairperson concluded this item with thanks to Member States for their positive attitude that helped to resolve all sensitive issues and concerns.
236. The following Member State and the representative of one Subsidiary Body chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: France, India, Japan, Kenya, USA, and WESTPAC.
237. The Assembly adopted IOC [Resolution A-32/1](#) submitted by Bangladesh, Islamic Republic of Iran, Kenya, Kuwait, Pakistan, United Arab Emirates.

#### 4.6 IOC CONTRIBUTIONS TO UN GOVERNANCE PROCESSES

238. Mr Barbière, Head of the Marine Policy and Regional Coordination Section, introduced this agenda item. Recognising its role in the UN system, in accordance with its Statutes, as a competent international organization in the fields of Marine Scientific Research and Transfer of Marine Technology, IOC contributes to various United Nations processes related to the ocean.
239. It was recalled that one of most prominent ocean development in recent decades was the agreement reached amongst UN Member States in March 2023 for an international legally-binding instrument under the United Nations Convention on the Law of the Sea (UNCLOS) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction. This “High Seas” agreement covers a range of issues, including marine genetic resources, environmental impact assessments, area-based management tools, and capacity building and technology transfer. Importantly for the Commission, the final agreed text of the Agreement makes reference to the possible cooperation with IOC/UNESCO in the implementation of the clearing-house mechanism to be created under the auspices of the new treaty potentially opening a pathway for deploying IOC’s tested and fully operational platforms and programmes in capacity development and transfer of marine technology for the benefit of all countries. Given that IOC possesses recognized technical expertise in several areas of relevance to the BBNJ agreement, further discussion will be required with Member States and the future Secretariat of the Treaty (undefined at this stage) to identify and develop further collaborative approach so that the IOC can contribute scientific and technical inputs in the operationalization and implementation of the Agreement, in accordance with its mandate.

240. Mr Barbière also referred to development in the area of marine biodiversity with the adoption in December 2022 at the 15th Conference of the Parties (COP15) of the Convention on Biological Diversity of the new Kunming-Montreal Global Biodiversity Framework. The Framework is divided into four overall goals and 23 targets for the protection of the world's biodiversity. The most emblematic of these is "at least 30 percent of terrestrial, inland water, and of coastal and marine areas" by 2030 (Target 3) – when the current terrestrial and ocean areas under protection, respectively, account for 17 and 8%. Several other targets are also relevant to the work of IOC and the Ocean Decade, in areas of ocean science, biodiversity assessment, ocean observation and data management, marine spatial planning and capacity development, to name a few.
241. Mr Barbière also reported on the follow-up of the UN Ocean Conference 2022, Lisbon, with planning for the UN Ocean Conference in 2025 to be hosted by France and Costa Rica well under-way, the IOC contributions to the Ocean-Climate Dialogue (June 2023) and Conference of Parties meeting (COP-28) under the UN Framework Convention for Climate Change, and planned support to the Third Cycle of the Regular Process for Global Reporting and Assessment of the State of Marine Environment, including plans for organising a joint Symposium on science/policy aspects with the UN Division of Ocean Affairs and the Law of the Sea (DOALOS) at UNESCO in December 2023.
242. The representatives of 12 Member States and one observer took the floor.
243. The Assembly supported the continuous engagement of the IOC Secretariat and Members States in the UN processes. Member States welcomed the degree of visibility that has been achieved in the BBNJ process in particular, as well as the increased collaboration with UN DOALOS in creating stronger synergies across the World Ocean Assessment and the Ocean Decade.
244. Some Member States highlighted that whilst some of these processes may create new demand on the work of IOC, it is important to consolidate first financial support for existing programmes so these can deliver their expected outputs.
245. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Chile, Japan, Kenya, Spain, United Kingdom, and USA.
246. The Assembly adopted Decision A-32/4.6.

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

247. Mr Barbière, Head of the Marine Policy and Regional Coordination Section, introduced this agenda item, recalling that over the last three decades, the IOC has embarked on the development of science-based approaches to support integrated ocean management efforts at local, national, and transboundary levels. These include: (i) the Large Marine Ecosystem approach focusing on transboundary management of marine resources, with partners such as NOAA, GEF, and UNDP; (ii) the establishment of Integrated Coastal Area Management programme focusing on technical tools and related capacity development for coastal management, adaptation and hazard mitigation (ref. ICAM Strategy endorsed by the IOC Assembly in 2017 through document IOC-XXIX/2 Annex 16); and (iii) since 2006, IOC has been leading international efforts in Marine Spatial Planning, developing technical guidance supported by related capacity development actions in all ocean basins. This was reinforced in 2017 with the development of a joint roadmap between IOC and the European Commission to advance MSP implementation globally and the establishment of the MSPglobal initiative. The Joint Roadmap was renewed in 2022 for a further five years.
248. Building on the political commitments of the High-Level Panel to sustainably manage 100% of the ocean area under national jurisdiction by 2025 (or within 5 years after joining the



Panel) , the provisions of the UN Ocean Conference Lisbon Declaration highlighting the role of science-based actions and innovation to “informing integrated ocean management, planning and decision-making”; various initiatives of international, regional and national institutions to support the implementation of ocean management, sustainable ocean planning, marine/maritime spatial planning, and other area-based/ecosystem management approaches, there is now an opportunity to accelerate these efforts in all ocean basins through the UN Decade of Ocean Science for Sustainable Development 2021–2030.

249. In light of these recent developments in the area of ocean management and considering the objectives of the IOC Medium-term Strategy (2022–2029), it is timely that IOC and its Member States consider adopting an IOC-wide Strategy on Sustainable Ocean Planning & Management, which would guide the contribution of the Commission across its programmes on ocean sciences, observation and data, early warning services and assessments, through the development of new services, ecosystem-based management tools, assessment and related information products, as well as capacity development in support to sustainable ocean management.

250. Mr Barbière finally outlined the suggested process for developing the IOC-wide Strategy on Sustainable Ocean Planning and Management (2024–2030), as well as the consultation process foreseen to collect inputs from Member States, IOC programmes and technical bodies as well as relevant stakeholders engaged in ocean management, prior to its presentation to the IOC Council at its 57th session in 2024.

251. The representatives of seven Member States took the floor.

252. The Assembly welcomed the increased focus of the IOC’s work on articulating science-based approach to ocean management, and recognised that the IOC’s contribution to the field of Marine Spatial Planning and Large Marine Ecosystems provides a unique platform for more targeted support to Member States.

253. Member States welcomed the initiative to develop a new strategy and stressed the importance of linking it to the work of IOC programmes in order to ensure that all elements of the IOC Functions can contribute to the development of Member States-led ocean management processes. Some Member States requested additional time to review document IOC/A-32/4.7.Doc(1), which describes the process for developing the IOC-wide Strategy on Sustainable Ocean Planning and Management, while at the same time supporting the decision that the Draft Strategy should be presented to the IOC Executive Council at its 57<sup>th</sup> session.

254. The following Member States and the Representative of one regional subsidiary body chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Italy, Japan, Norway, United Kingdom, USA, and WESTPAC.

255. The Assembly adopted Decision A-32/4.7.

#### 4.8 GLOBAL OCEAN OBSERVING SYSTEM

##### **4.8.1 GOOS Work Plan for 2024–2025**

256. Dr Anya Waite, co-chair of the GOOS Steering Committee, introduced this item. She recalled that the Assembly at its 30th session in 2019 adopted a Global Ocean Observing System 2030 Strategy (IOC/BRO/2019/5), which now forms the basis of the work of the GOOS Office and components. The GOOS vision is for a truly integrated ocean observing system that delivers the essential information needed for sustainable development, safety, wellbeing and prosperity. Key to this vision of an integrated system is connection across the value chain—from observations, through data management and forecast systems, assessments, policy and ocean management, through services to end users—ensuring that the ocean observations are fit for purpose and support the needs of society across climate, weather and hazard warnings, ocean health and the blue economy.

257. The ocean plays a key role in climate, the livelihoods of billions of people, global biodiversity, and national economies. Without ocean observations we will not be able to respond to climate change, tackle the decline in global biodiversity, create viable markets for carbon credits, and build stable economies based on sound ocean management. GOOS's work in supporting nations in reaching global sustainability goals remains urgent and vital.
258. Dr Waite reviewed the status of the sustained ocean observing system through the regular tracking of the GOOS global ocean observing networks by OceanOPS (IOC-WMO-GOOS operational centre), and the new GOOS BioEco Portal (hosted by IODE's OBIS) which shows the sustained biological and ecological focused observing programmes around the 12 BioEco Essential Ocean Variables (EOVs). She also highlighted some key advances from the advances GOOS Implementation Plan Summary 2024/2025 (IOC/A-32/4.8.1.Doc(1)).
259. The GOOS Ocean Decade programmes are all advancing. The Ocean Observing Co-Design Programme has recently published summary of a Co-Design Workshop and has identified pilot Exemplar Projects to co-design our capacity to deliver carbon data to inform climate targets and carbon markets, to advance cyclone forecasting to save lives and property, to understand community needs to meet post-2020 biodiversity targets, to predict and track marine heatwaves for food security and climate and weather services, and to observe key current systems for coastal erosion, fisheries, shipping and tourism. The CoastPredict Programme has defined an implementation strategy with key partners that focuses on revolutionizing coastal ocean observing and prediction services in key regional Global Coast Experiments. 'Observing Together' is working with five Ocean Decade Projects. The DCO Ocean Observing Decade Coordination Office for Ocean Observing has been established and a lead appointed with support from the IOC Decade Coordination Unit. This will support coordination and collaboration across the 10 Decade Programmes focused on ocean observing.
260. Dr Waite however also noted that despite these advances, investment in ocean observing is flatlined across the global networks at a time when the need for ocean information underpinned by sound science and observations is growing exponentially. Pointing to increased budgetary pressure caused by inflation, she urged Member States towards considering sustained funding for global ocean observing infrastructure.
261. The GOOS Steering Committee at its twelfth session (25–27 April 2023, Halifax, Canada) assessed GOOS progress towards the 11 Strategic Objectives (GOOS 2030 Strategy, GOOS Report 239; GOOS Implementation Plan Summary 2024–2025, IOC/A-32/4.8.1.Doc(1)), and identified key priorities for the next intersessional period. Considerable progress has been made across all 11 Strategic Objectives. However, the GOOS Steering Committee highlighted the need to focus on advancement in several priority areas. These were advocacy and communication, regional coordination, the UN Ocean Decade and the work of the Ocean Observing Co-Design Programme, which was referenced as important across several of the Strategic Objectives, and evolving GOOS Governance as a key action for 2023. Finally, strengthening GOOS Core was identified as essential to function. The Steering Committee noted that GOOS has several points of weakness in its core support structures and that this is vital to deliver on GOOS 2030 Strategy and Ocean Decade actions. The GOOS Steering Committee endorsed the proposal for a new GOOS Regional Alliance from the Canadian Integrated Ocean Observing System (CIOOS, IOC/A-32/4.8.1.Doc(2)) and agreed the updated Terms of Reference for the GOOS National Focal Points (cf. IOC Circular letter 2931). The work to communicate and advocate for the ocean observing system remains a strong focus and underpins the work of the GOOS Core Team.
262. The plan is supported by a GOOS Office with distributed contributions from IOC, WMO, and a large number of Member States and organizations, and Dr Waite thanked them for their support. There has been a modest increase in support for the GOOS Core Team in 2022–2023, but not sufficient to fully support delivering the sustained, fit-for-purpose and expanded ocean observing system needed to adapt to climate, biodiversity, sustainable ocean

management and a sustainable ocean economy. Strengthening support for the GOOS Core will be an area of focus, to be considered hand in hand with evolving GOOS governance.

263. Dr Waite concluded with an affirmation that GOOS had made good progress in the GOOS Implementation Plan and encouraged Member States to support the GOOS Ocean Decade Programmes as key cross-cutting drivers of transformational change and as well support GOOS Office in delivering for the United Nations and the challenges faced by Member States of building a fit-for-purpose ocean observing system to serve multiple societal challenges.
264. The representatives of 20 Member States and 2 observers took the floor.
265. The IOC Member States expressed their thanks to the GOOS Co-Chairs and Secretariat for the intersessional work and the GOOS Work Plan 2023–2025 Report. Member States welcomed and supported the GOOS Work Plan 2023–2025.
266. A number of Member States outlined their national contributions towards GOOS, through the development of national systems and committees, contributions to global ocean observing networks and forecasting systems, and through the contribution of experts into the GOOS Steering Committee and Components—details can be found in the records of the Member States interventions. Italy noted that its government was making a 50-million Euro investment into an Integrated Italian Ocean Observing System (IOOS) to ensure access to and long-term monitoring of EOVs, ECVs and EBVs. Many Member States expressed their desire to continue to work with and support GOOS.
267. Several Member States also noted their intention to participate in the GOOS Ocean Decade Programmes, and the need to give priority to strengthening links along the value chain and into the coast.
268. Member States also noted the core and principal role of GOOS in IOC’s work, providing the basis of policy advice and supporting all other functions, and that ocean observations were becoming increasingly important in the context of the Ocean Decade. A number of Member States noted that GOOS is critically underfunded and highlighted the need to allocate sufficient resources for GOOS to do its work. Member States suggested that IOC consider stabilising GOOS with additional budget, and Member States were asked to note this when looking at the budget. The request that GOOS made with regard to resources was viewed as realistic and Member States were encouraged to support this.
269. The need to monitor the status and forecast the long- and short-term changes in the ocean was well recognised, with climate, as well as environmental forecasting, hazard warnings and empowering coastal communities noted as key areas where observations and prediction are critical.
270. GOOS work on the Dialogues with Industry initiative was welcomed, and that this initiative would continue to develop advice and insight on the deepening of public-private partnerships and collaboration in ocean observing, as societal needs are outpacing our ability to deliver.
271. The work on the taking of sustained ocean observations in areas under national jurisdiction was also noted as important, see separate item 4.8.2.
272. Some Member States requested that GOOS advance in evolving its governance, noting that although Member States looked to GOOS for advice, that its governance does not enable effective priority setting and access expanded external funding, and that there is a need for greater responsiveness to national needs. There was a call for this action to have greater urgency, with reference to a report commissioned by GOOS (*ref Report of study on Support Provided to Global and Regional Ocean Observing Systems* by Neville Smith, 30 March 2021], and that GOOS could look to recent GEBCO and GCOS governance reviews as examples.

Also, GOOS was recommended to enhance its data capabilities, improve transparency around data management and find ways to strengthen data delivery. It was noted that the links between IODE and GOOS could be further strengthened, and GOOS and IODE working together towards understanding the end-users of data is a good way forward.

273. Member States noted the importance of the GOOS National Focal Points and that they can be of great value and agency in strengthening the ocean observing system, also recognising the high value and need to strengthen national and regional coordination. The recent reinvigoration of some regions was noted as positive. Several Member States noted their interest in supporting other States through exchange of technology, data, and experience. GOOS-Africa was noted as important, for the region, and a desire for greater international corporation towards its success.
274. There was broad support for the Canadian Integrated Ocean Observing System (CIOOS) becoming a GOOS Regional Alliance. It was noted that CIOOS overcame siloed data approach and implemented best practices based around Essential Ocean Variables (EOVs), and that CIOOS benefits from working with GOOS and other GOOS Regional Alliances.
275. The World Meteorological Organisation placed emphasis on the importance of strengthening the partnership with WMO, noting the links between GOOS and the Rolling Review of Requirements, and linking this to the GOOS Ocean Observing Co-Design Programme. WMO expressed its willingness to support the evolution of GOOS core governance. The European Marine Board noted the need for ocean observing to be viewed as critical infrastructure, and that the GOOS National Focal points are key to linking GOOS to national priorities, and the need for a stable backbone of institutional investment to hold the system together.
276. The GOOS Co-Chairs expressed their thanks to the Member States and co-sponsors for their support to GOOS mission and strategic work. They noted that evolving GOOS governance was a priority for GOOS in this work plan.
277. The following Member States and one observer chose to provide records of their plenary intervention on this agenda item and GOOS-related matters for the informational annex to the meeting report: Argentina, Brazil, Canada, Colombia, France, India, Italy, Japan; Spain, United Kingdom, United States of America, and the European Marine Board.
278. The Assembly adopted Decision A-32/4.8.1.

#### **4.8.2 Ocean Observation in Areas under National Jurisdiction**

279. The acting Head of the IOC Ocean Observations Section, Dr Emma Heslop, introduced this item. She recalled that ocean observing networks reported to the GOOS Steering Committee and the GOOS Observations Coordination Group that there were “issues” in undertaking sustained ocean observations in areas under national jurisdiction. Furthermore, an expert workshop on “Ocean Observations in Areas under National Jurisdiction” (OONJ, GOOS Report, 246) was held in 2020, and the results and recommendations were presented to the IOC Executive Council at its Fifty-fifth session. After considering the summary report, the Executive Council requested the Executive Secretary to invite Member States and GOOS networks to provide information on their experiences regarding sustained ocean observations in areas under their national jurisdiction including on the issues identified by GOOS through the Expert Workshop on “Ocean Observations in Areas under National Jurisdiction” (Decision IOC/EC-55/3.4).
280. Correspondingly, the global ocean observing networks were requested to provide more details via a survey in November 2022. 66 responses were received. The IOC Member States were asked to provide feedback via IOC Circular Letter 2938 in February 2023, and 15 Member States provided feedback. A summary of the results is given in IOC/A-32/4.8.2.Doc(1).

281. Dr Heslop reviewed results from the networks survey, which indicated that the global networks face issues, as previously identified in the OONJ workshop and that for some networks these were reasonably significant issues, impacting coverage, cost, and efficiency.
282. The results of the Member States feedback were both interesting and varied. Some Member States reported no issues with the taking of sustained observations in areas under national jurisdiction, others reported several, including instances where Marine Scientific Research clearance was refused or provided just before the mission commenced, and some Member States do not undertake sustained ocean observing in other States waters. Most Member States reported granting permission for other/foreign States to conduct sustained ocean observing in their waters, often processing MSR clearance in 2–4 months. Several Member States reported on differences between applications for marine scientific versus fisheries research. Most Member States noted that one or more of the solution spaces suggested in the OONJ Report would be helpful in reducing issues encountered. Of the seven solution spaces, considering ‘an Argo-like process’ was referenced several times, and useful details were provided on successful approaches to MSR clearance processes.
283. Dr Heslop concluded that there would be value in developing an ad hoc working group of Member States to assess the results of the surveys, identify and study some of the specific issues and successful approaches taken by Member States, and to make recommendations for action to the IOC Executive Council in 2024.
284. The representatives of 18 Member States and 3 observers took the floor.
285. The content of the report was broadly welcomed as providing useful insight into the issues experienced by the global networks and the experiences of Member States.
286. Many Member States noted the importance of ocean observations for climate, ocean health, for coastal areas, and for society in general, and the importance of the global networks taking the much-needed observations.
287. A number of Member States noted that the OONJ Report offered some potential solution spaces, within UNCLOS, that could be explored by Member States, including regional agreements and using the Argo Notification Scheme as a successful model, and some Member States proposed that GOOS should also undertake awareness raising activities to help States realize the value of observations, including positive impact on States’ adaptation to climate change and sustainable economic development.
288. Member States noted that most Member States that responded to the survey reported positive experiences with taking of sustained ocean observations in areas under national jurisdiction, although some also noted issues and the difficulties in marginal seas, where all the area is under national jurisdiction. Some Member States viewed sustained ocean observations as falling under the provisions for Marine Scientific Clearance within UNCLOS, however others did not.
289. It was noted that there were several good practices and ideas outlined in the responses from the Member States with regard to the processes and protocols for the taking of observations in areas under national jurisdiction and that there would be value in identifying and sharing these, perhaps developing best practices to update, modernise and perhaps standardise the processes adopted to implement the Law of the Sea. Some Member States noted that they received many requests for clearance for the taking of sustained ocean observations in areas under national jurisdiction and had developed robust and streamlined processes to handle these. Several Member States suggested that an exchange between Member States regarding processes would be helpful, and one Member State indicated that some form of identification on autonomous floats would help. Some Member States would wish to see more evidence of the impact of the issues reported by the ocean observing networks on GOOS, in order to better understand the value of any action.

290. All the Member States supported the decision to form an ad hoc Working Group on Ocean Observation in areas under National Jurisdiction.
291. Some Member States noted that the work of the ad hoc Working Group should be carried out in the framework of UNCLOS, others noted that the Working Group itself should report to the IOC Executive Council and also that the IOC continue collecting responses from Member States.
292. The International Hydrographic Organization (IHO) and World Metrological Organization (WMO) also expressed interest in connecting to the Working Group, the IHO noting some similar discussions regarding crowd sourcing of bathymetry data, and WMO referring to its cooperation with the Global Ocean Observing System (GOOS) in this area. The UN Department of Law of the Sea (DOALOS) noted that the Informal Consultation Process last year was on the topic of Ocean Observing, and that it is aware of the value of ocean observations and of the operational difficulties. DOALOS noted the need to work in the frame of UNCLOS and that it was ready to work with Member States in finding practical solutions and could update the guides on implementing the Law of the Sea.
293. The following Member States expressed their interest in being part of the proposed ad hoc Working Group on Ocean Observation in areas under National Jurisdiction: Argentina, China, France, Germany, Japan, Kenya, Portugal, Russian Federation, and Thailand.
294. The following Member States and one organization chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Argentina, Canada, Chile, Japan, Kenya, Russian Federation, Thailand, United Kingdom, USA, and IHO.
295. A drafting group was set up to work on adjusting the decision in line with suggestions from several Member States. There was useful exchange regarding Member States different positions with regard to ocean observations and the Law of the Sea, and positive engagement by all members to find an acceptable framing. Consensus was reached and the decision successfully re-drafted. Eleven Member States took part in the drafting group: Argentina, Bangladesh, China, Denmark, France, Japan, Portugal, Russian Federation, Türkiye, United Kingdom, and United States of America.
296. The Assembly adopted Decision A-32/4.8.2.

#### 4.9 FOUR-YEAR REVIEW OF THE JOINT WMO-IOC COLLABORATIVE BOARD

297. Dr Srinivasa Kumar Tummala, Co-Chair of the Joint WMO-IOC Collaborative Board and IOC Vice-Chair, introduced this agenda item. He reminded Member States that the Joint WMO-IOC Collaborative Board (hereafter JCB) was created by IOC Assembly Resolution XXX-2 (2019). He noted that Resolution XXX-2 requested the Joint WMO-IOC Collaborative Board to: (i) facilitate the continued work of all JCOMM functions and activities by recommending connections to appropriate working structures on both sides; (ii) make recommendations on evolving the governance of GOOS, in consultation with all co-sponsors, to further develop the partnership and functional connections between GOOS and WMO Integrated Global Observing System (WIGOS); (iii) prepare, in consultation with WMO and IOC technical, scientific and regional bodies, a comprehensive and coordinated WMO-IOC Collaborative Strategy, based on existing sectoral strategies, and submit it in 2021 to the governing bodies of WMO and IOC for adoption. The IOC also decided further to review, in coordination with WMO governing bodies, the performance of the JCB in four years, reporting to the IOC Assembly at its 32nd session in 2023.
298. Dr Kumar noted that the JCB has made progress (IOC/A-32/4.9.Doc(1)). In 2021, IOC Decision A-31/3.5.5 adopted the WMO-IOC Collaborative Strategy and Report, focused on setting broad ambition for cooperation across the value chain, in observations, data, modelling, services and research. In 2022, the JCB met virtually in March, and identified a set of potential

actions to support the implementation of these aims. However, overall progress has perhaps been slower than anticipated, as a result of COVID-19 restrictions impacting the ability of the JCB to meet in person and other resource issues.

299. Dr Kumar noted that in order to fulfil its mandate, the JCB would need to meet in person in September 2023, with a virtual pre-meeting in July 2023 to agree on the agenda. At this face to face meeting the JCB will undertake a self-evaluation review of performance and discuss specific areas for greater potential IOC-WMO collaboration.

300. Dr Kumar confirmed that there is strong commitment from IOC and WMO towards supporting the JCB in fulfilling its mandate and invited comments from Member States in view of the forthcoming meeting of JCB and its evaluation.

301. The representatives of seven Member States and one organization took the floor.

302. Member States welcomed the report of Dr Kumar and strongly supported the 4-year review, and the opportunity to create clear priorities and to reinvigorate collaboration.

303. It was noted that climate change is societies' greatest challenge, that the ocean and atmosphere are fundamental to addressing this challenge, and therefore cooperation between WMO and IOC is vital, across all parts of their value chains. Areas highlighted for collaboration included: GCOS, GOOS and WIGOS, data policy harmonisation, WIS and IODE/ODIS, meteorological tsunamis, data collection, and cooperation on capacity development at regional levels between WMO and IOC expert communities. In addition, it was noted that GCOS, GOOS and WCRP are joint programmes.

304. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Republic of Korea and USA.

305. The Assembly adopted Decision A-32/4.9.

#### 4.10 FOLLOW-UP TO WMO-ISC-IOC-UNEP GLOBAL CLIMATE OBSERVING SYSTEM (GCOS) REVIEW AND GCOS IMPLEMENTATION PLAN 2022

306. Dr Anthony Rea, Director of the World Meteorological Organization Infrastructure and Director of secretariat for the Global Climate Observing System (GCOS) introduced this agenda item. He noted that this item would cover two key activities: the 2022 GCOS Implementation Plan, in which GOOS experts (through its Expert Panel on Ocean Observations for Physics and Climate—OOPC) played a key role to deliver the ocean content; and the recommendations from the WMO-IOC-ISC-UNEP Joint Study Group on GCOS (JSG-GCOS).

307. He reminded Member States that GCOS is sponsored by IOC, WMO, ISC and UNEP, and its role is to determine the requirements for observing for climate across four domains - atmosphere, ocean, cryosphere and terrestrial, and to set the framework for the Essential Climate Variables (ECVs). GOOS, through OOPC, interfaces into GCOS for the ocean component of this work, and the GOOS Essential Ocean Variables framework is harmonized with the ocean ECVs. A number of GOOS networks also observe some ocean and atmospheric ECVs. GCOS's success in providing critical baseline information to the international climate processes (especially UNFCCC) is widely recognized, and it also interfaces the evolving requirements for climate observations into the international climate processes. The 2022 GCOS Implementation Plan (GCOS-244, GOOS-272) is the latest in a series of implementation plans produced by GCOS since its inception in 1992. It provides a set of high priority actions which, if undertaken, will improve global observations of the climate system and our understanding of how it is changing. The 2022 GCOS ECVs Requirements planning document (GCOS-245) provides revised requirements for the ECVs. The plan aims at identifying the major practical actions that should be undertaken in the next 5–10 years. It

identifies six major themes that should be addressed, including sustainability of observations, filling data gaps, and data management, amongst others. Within each theme, several actions are identified, and Dr Rea outlined the major actions within each theme that are targeted at GOOS, and which are presented in IOC/A-32/4.10.Doc(1).

308. Anthony Rea commended Member States for their investment in ocean observations for climate to date, and often in waters beyond national jurisdiction, which have provided information on the vital role of the ocean in the Earth's climate system and have underpinned the global climate agreements. He encouraged Member States to review the 2022 GCOS Implementation Plan and to expand our ocean observing capacity as imperative to supporting adaptation and global resilience to the many impacts of climate change.
309. The sponsors last reviewed the GCOS in 2014, and at that time made some suggestions for change. However, after 30 years of GCOS existence, its governance structure needed comprehensive review to articulate more clearly the relationships with its sponsors, observing networks, supporters and key users, as essential to how GCOS recommendations can be implemented across the wide range of stakeholders and network partners. Finally, the funding for the GCOS coordination as well as for several of its networks needed review.
310. The Joint WMO, IOC, ISC and UNEP Study Group on the Global Climate Observing System (JSG-GCOS) was formed in 2020 under the Infrastructure Commission of WMO. The Joint Study Group reviewed the GCOS governance and structure, making a number of key recommendations in IOC/A-32/4.10.Doc(2). Anthony Rea highlighted the recommendations that relate to the IOC and noted that the JSG-GCOS had drafted a revised Memorandum of Understanding for consideration by all sponsors that clarifies aspects of GCOS governance (Appendix A of GCOS-246).
311. Anthony Rea noted that there is both a Resolution and a Decision attached to this Agenda item. The Resolution relates to the recommendations from the Global Climate Observing System (GCOS) Implementation Plan 2022. The decision concerns the Final Report of the WMO-IOC-ISC-UNEP Joint Study Group on GCOS (JSG-GCOS). For simplicity this approach mirrors that taken by WMO.
312. The representatives of eight Member States took the floor.
313. A number of Member States expressed support for the GCOS Implementation Plan, noting that the report of COP-27 emphasised the need to address gaps in the global ocean observing system and that one third of the world population, including in Africa, do not have access to climate and early warning services. Others emphasised that climate observations are critical in supporting national and regional policies, and that it is important to fill the data gaps in Africa.
314. Member states noted that they contribute to the climate observations needed through the GOOS Observations Coordination Group, Regional Alliances and Expert Panels, and expressed appreciation for the role of the Ocean Observations for Physics and Climate Panel (GOOS Expert Panel) in supporting GCOS for the ocean components of the Implementation Plan.
315. Some Member States highlighted their support for aspects of the Implementation Plan, including the call for sustainable funding, data and interoperability standards, sustainable resources for OceanOPS which supports both GOOS and GCOS, and actions that identify the need to maintain and improve ocean observations, particularly in exciting new areas such as biogeochemical and biological parameters, ocean carbon dioxide, and heat fluxes.
316. One Member State cautioned that the slow roll out of WMO's GBON (Global Basic Observing System) should not create a perception that other EOVS and ECV observations— not yet in GBON—are not as important.



317. The review of the GCOS governance was also supported.
318. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: United Kingdom, and USA.
319. The Assembly adopted Decision A-32/4.10 and IOC Resolution A-32/2 submitted by Germany.
- 4.11 UPDATE ON IOC CUSTODIANSHIP ROLE IN RELATION TO UN SDG 14 INDICATORS
320. Mr Henrik Enevoldsen introduced this agenda item by recalling that the 2030 Agenda for Sustainable Development adopted by United Nations Member States in 2015, and in particular SDG 14 ('Conserve and sustainably use the oceans, seas and marine resources for sustainable development'), constituted an essential point of reference for IOC's engagement with its Member States, as well as for its programmatic presence at global, regional and country levels. Several targets of SDG 14 are directly relevant to IOC's work, particularly in the areas of marine pollution (14.1), ocean acidification (14.3) and ecosystem-based management (14.2), as well as marine research capacity and the transfer of marine technology (14.A), as a cross-cutting element to all SDG 14 targets.
321. He recalled that the Commission was supporting the development of a global SDG indicator framework for specific targets, primarily 14.3 (ocean acidification) and 14.A (scientific knowledge and ocean research capacity), for which IOC had been identified as the United Nations custodian agency by the Inter-agency and Expert Group on SDG Indicators (IAEG-SDGs). The technical support provided by IOC includes building expert and Member States capacities to implement the respective methodologies to populate respective SDG indicators and underpin data standards to collect data from Member States and report those data globally to the United Nations Statistics Division.
322. He also highlighted that IOC successfully continued its role as custodian agency for SDG Indicators 14.a.1 and 14.3.1. New data sets were collected for both indicators (through IOC Circular Letters 2911 and 2919) and are visible in the 2022 annual UN Report of the Secretary General '*Ocean and the Law of the Sea*'.
323. Since the launch of the SDG 14.3.1 Data Portal in December 2019, an increasing number of ocean acidification observations have been reported to IOC and are included in the annual 14.3.1 assessment (308 stations in 35 countries reported in 2022 to 539 stations in 41 countries in 2023). However, the current global coverage of ocean acidification remains inadequate, with gaps in observations and data in all areas of the ocean. The rate of change in ocean acidification, its pattern and scale, show great regional variability and therefore require observations with high spatial and temporal resolution. The latest results from the IOC SDG 14.3.1 reporting will be published on the UN Department of Economic and Social Affairs (DESA) website in July 2023.
324. Future developments will include the facilitation of data submissions for the SDG 14.3.1 data collection.
325. The *Global Ocean Science Report* survey is the main mechanism to collect data for the SDG 14.a.1 Indicator, however as the next full edition of the GOSR is expected to be published in 2025, IOC Secretariat launched the *Global Ocean Science Report* Tracker questionnaire in January 2023 (cf IOC Circular Letter 2919) to collect basic information on current ocean science capacity in a given country, including SDG 14.a.1 data. The updated information submitted to UN DESA now includes data from 39 Member States and will be also published in July 2023.

326. Mr Enevoldsen also reported that IOC directly supported the work to develop the Index of Coastal Eutrophication Potential (ICEP) as the indicator for United Nations SDG 14.1.1 on the nutrient pollution of coastal marine ecosystems. The development of the ICEP was being carried out for the United Nations Environment Programme (UN Environment), the custodian agency for SDG Indicator 14.1.1, under the coordination of IOC. ICEP is expected to be fully developed by 2nd quarter 2024.
327. The representatives of seven Member States took the floor.
328. The Assembly welcomed the progress made in the development of both the SDG indicators for which the IOC is custodian agency and those for which it is co-custodian, and recognized that this progress was fundamental for ocean science and for the IOC.
329. The Assembly noted with satisfaction the increase in data contributions, particularly for 14.3.1 Target, and how this is being facilitated by the Global Ocean Acidification Observing Network (GOA-ON) and its Ocean Decade endorsed programme Ocean Acidification Research for Sustainability Programme (OARS). The Assembly welcomed the GOSR portal for the 14.a.1 Indicator and recognized the importance in general of developing standards for data reporting.
330. Several Member States reaffirmed their commitment to reporting on the SDG targets and therefore to providing data.
331. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Spain, Thailand, United Kingdom, and USA.
332. The Assembly adopted Decision A-32/4.11.

#### 4.12 REPORT ON THE DECADE IMPLEMENTATION PLAN

333. This item was opened by presentations from the Co-Chairs of the Decade Advisory Board. Dr Margaret Leinen reminded the Assembly of the history, mandate and role of the Board and outlined the role of UN agencies as members of the Board. Mr Vidar Helgesen reported on the key achievements of the Board since its establishment including its role in reviewing requests for endorsement of Decade programmes, its strategic reflections including the work of the task teams on resource mobilisation, and on SIDS/LDC engagement and Indigenous and local knowledge. He highlighted the importance of the next 12- to 24-month period for the Decade including the 2024 Ocean Decade Conference, the Vision 2030 process, as well as the 2025 United Nations Ocean Conference. He reminded the Assembly that a renewal of the Board membership would take place before the end of 2023.
334. Following the introduction by the Co-Chairs of the Decade Advisory Board, Mr Julian Barbière, Ocean Decade Focal Point, supported by Ms Alison Clausen, Programme Specialist, presented an overview of the progress in operationalizing the Implementation Plan. He reported that to date, four Calls for Decade Actions had been concluded and had resulted in the endorsement of 47 Decade programmes, 235 Decade projects and 79 Decade contributions. The fifth Call for Decade Actions is currently open until 31 August 2023. He reported that while the portfolio of Decade Actions exhibits strong thematic diversity, there are still important gaps in leadership from partners in SIDS and LDCs. He indicated that future Calls for Decade Actions will increasingly target strategic geographic and thematic gaps in the overall ecosystem of Decade Actions.
335. Mr Barbière reported that the growing network of decentralised coordination structures including 8 Decade Collaborative Centres, 3 Decade Coordination Offices and 11 Decade Implementing Partners are essential partners to coordinate and support existing Decade Actions, analyze gaps and future priorities, and catalyze new Decade Actions in response to future Calls for Decade Actions. He thanked partner institutions for their

commitments in establishing decentralized coordination structures but indicated that gaps in the network remained in priority thematic areas and geographies, and also reminded the Assembly that the Decade Coordination Offices led or proposed by IOC required additional resources to become fully operational.

336. He reported on the work of the Decade Advisory Board that met four times over the last 12 months and played an important role in making recommendations on Decade programme endorsement, as well as providing advice on strategic issues including related to the engagement of SIDS and LDCs in the Decade, measures to enhance the engagement of Indigenous and local knowledge holders, and resource mobilisation. He noted that the term of the current membership of the Decade Advisory Board will come to an end in December 2023 and indicated that new call for nominations will be launched in the third quarter of 2023.
337. Mr Barbière confirmed that 37 National Decade Committees have been established and are operational but highlighted the uneven geographic distribution of these Committees with very few Committees in SIDS or LDCs. He reminded the Assembly of the recent analysis of experiences of National Decade Committees (IOC/INF-1428) and indicated the importance of National Decade Committees to convene diverse stakeholders to identify national ocean science and capacity development priorities, and the important role that Committees can play in aligning national resource allocation decisions with Decade priorities. He encouraged Member States to develop new National Decade Committees and indicated that the Decade Coordination Unit and existing group of National Decade Committees could provide mentoring and support to this process.
338. He outlined the contribution of IOC to the Decade in the form of Decade programmes and projects, the central Decade Coordination Unit, and the supporting role of its Sub-Commissions Secretariats acting as Decade Coordination Offices. He highlighted the strong potential for IOC-led Decade Actions and coordination structures to contribute to the strengthening and strategic expansion of IOC programmes and Regional Subsidiary Bodies, but noted the significant resource constraints that persist. He strongly encouraged Member States to provide additional in-kind and financial resources to support the central positioning of IOC within the Decade both in its coordination role as well as through its programmatic contributions. He indicated that most of the UN-led Decade Actions are led by IOC and highlighted a recent analysis (IOC/INF-1428) that identifies priority actions for increased engagement of other UN agencies in the Decade that will be implemented via UN-Oceans over the next 12 to 24 months.
339. Mr Barbière indicated that priorities for the Ocean Decade over the next 12 to 18 months will include increased focus on engagement of African countries and SIDS, including exploration of mechanisms for dedicated streams of funding for Decade Actions led by partners in these countries. He particularly recognized the work of the Africa Ocean Decade Taskforce in its role to provide strategic advice to the implementation of the Africa Ocean Decade Roadmap. He also indicated that the recent operationalization of the Ocean Decade Capacity Development Facility would focus on delivering demand-driven capacity development to Decade partners, with a focus on LDCs, SIDS and Early Career Ocean Professionals. He recalled the importance of the work of the Foundations Dialogue and the Ocean Decade Alliance, both for direct support to Ocean Decade initiatives and to raise awareness of the importance of investing in ocean science, and thanked the members of these groups for their continued engagement.
340. He recalled that the 2024 Ocean Decade Conference will be generously hosted by Spain in Barcelona in April 2024 and will be a critical moment in the implementation of the Decade. This Conference will provide an opportunity to take stock of achievements of the Decade to date, and to set a collective vision for the way forward. He noted that the presentation of the results of the 'Vision 2030' process that is currently being implemented will be a central element of the Conference and will allow the refinement and measurement of progress towards the Ocean Decade Challenges. Mr Barbière noted the importance of strong articulation of the outcomes of the Conference with the 2025 United Nations Ocean

Conference to be co-hosted by France and Costa Rica. He noted several other important international events and conferences in the lead up to the 2024 Ocean Decade Conference that will be used to raise awareness of the Ocean Decade and incite enthusiasm for participation in the Conference in April 2024.

341. The presentation was concluded by the Executive Secretary. Vladimir Ryabinin underscored the importance of the work of the Decade Advisory Board and thanked its co-chairs and members for their commitment. He reminded Member States that several Decade Actions and coordination structures are led by IOC and that, if adequately resourced, these initiatives have the potential to substantively contribute to the sustained growth, positioning and impact of IOC. He recalled the presence of the Ocean Decade in international and regional ocean convenings and conferences over the last 12 months that has contributed to an increasing global visibility for IOC and Decade Actions. Finally, he recalled the urgent need for continued investment and engagement by Member States in the Decade, both to support the coordination role of the IOC as well as IOC and partner-led Decade Actions, and invited Member States to increase their support to the Ocean Decade.
342. The representatives of 29 Member States and 3 observers took the floor.
343. Member States expressed their thanks to the Secretariat for its coordination of the Decade. They indicated their satisfaction with measures that had been adopted to address challenges identified over the last period and expressed optimism that new initiatives including the Vision 2030 process and the Ocean Decade Capacity Development Facility would further increase the impact of the Decade.
344. Some Member States raised questions about the increasing funding gap as new Decade programmes came online and encouraged the Secretariat to leverage existing structures in the proposed new initiatives. The Secretariat confirmed that the number of new programmes is decreasing with each Call for Decade Actions as gaps are filled and confirmed that this is an expected development that will allow consolidation of support to existing endorsed Actions and focus on collective impact. It also reiterated that the Vision 2030 process will inform targeted resource mobilisation that will assist in filling the funding gap for Decade Actions. The Secretariat confirmed that it will continue its efforts to fully leverage and engage existing structures in Decade implementation including via review processes that will be incorporated into the Vision 2030 process.
345. Member States thanked the Secretariat for the initiative to explore the challenges and obstacles to UN agency engagement in the Decade and asked for more detail on the implementation of the recommendations identified in the analysis. The Secretariat confirmed that implementation of these recommendations will commence in the second half of 2023 following further discussions with UN Oceans and that the impact will be reported back to the Governing Bodies.
346. In response to Member State reflections on the need for increased coordination in the Indian Ocean region, the Secretariat confirmed regional coordination is being supported by the Decade Collaborative Centre hosted by INCOIS that will work closely with IOCINDIO, Member States and other partners in the region.
347. In response to questions about differing levels of support offered to different categories of Decade Actions, the Secretariat confirmed that, together with the Decade Coordination Office and Decade Collaborative Centres, it aims to provide support to all types of Decade Actions. It noted that it is working to attach 'orphan' projects to existing or new programmes and that the new website will provide increased visibility to Decade Actions. The Secretariat also confirmed that it will continue to work to streamline the endorsement process but noted that a balance is required to ensure continued legitimacy and value of Decade endorsement.

348. In relation to questions from Member States regarding the ways in which Indigenous and local knowledge holders are being engaged in the Decade, the Secretariat confirmed that it is working closely with the UNESCO LINKS programme to operationalise a framework and is working with partners in the South Pacific region to develop experiences that can be shared throughout the Decade.

349. The Secretariat closed this agenda item thanking the numerous Member States and partners who are providing support for the Decade and encouraged all parties to actively participate in the 2024 Ocean Decade Conference.

350. The following Member States and two organizations chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Brazil, Canada, Chile, Colombia, France, India, Italy, Japan, Kenya, Monaco, New Zealand, Norway, Portugal, Republic of Korea, Spain, Thailand, Türkiye, USA, PICES and SCOR.

351. The Assembly adopted [IOC Resolution A-32/3](#) submitted by India and Brazil.

## **5. IOC AND THE FUTURE OF THE OCEAN: SUSTAINABLE DELIVERY AND EXPANSION OF IOC ACTIVITIES**

352. The Executive Secretary introduced this agenda item. He referred to recent developments in ocean research and observations, which are spearheaded by IOC, including the UN Ocean Decade. He recalled the emerging notion of Sustainable Ocean Planning, which was developed by the expert community associated with the High-Level Panel for a Sustainable Ocean Economy. He also noted seminal ocean dimensions of key international agreements and frameworks that are either in force or are awaiting entering into force or are in preparation. Further, he briefly described the advances associated with the series of UN ocean conferences. The Our Ocean Conferences, the 2022 One Ocean Summit in France, the World Ocean Summits by *The Economist* also added momentum to the work in the ocean. IOC has been a participant in all of them. New perspectives are associated with the third UN Ocean Conference co-hosted by Costa Rica and France (Nice, first half of June 2025).

353. Dr Vladimir Ryabinin expressed his conviction that the major changes in human relations with the ocean require a new discussion on how IOC could best support the sustainability of the ocean. In the history of the IOC, there have been several periods of intense and healthy self-reflection, including the well-known “We have a problem” discussion in 2005. UNESCO’s Internal Oversight Service recently launched an objective, positive but critical and forward-looking reflection on the IOC’s capacity to deliver on its commitments, in the form of an evaluation of the IOC’s strategic positioning. The review of its recommendations by the IOC Executive Council in 2022 (EC-55) led to a request to the Executive Secretary to prepare an assessment of the resources, including human resources, required to sustainably deliver the growing range of IOC services, including the coordination of the Ocean Decade. That assessment was completed and submitted to IOC Member States on 22 October 2022 in the IOC Circular Letter 2912. The plan of actions resulting from the evaluation was included in the Assembly agenda under item 6.3.

354. The Executive Secretary also reflected on the long-term evolution of the IOC. While in 1960 the IOC was established by UNESCO as a United Nations platform for international dialogue between oceanographers from different political systems, the Commission has recently taken on an increased responsibility to put ocean science at the service of solving major global issues of an existential nature. These issues are reflected in the main international agreements or frameworks—on climate, biodiversity, disaster risk reduction, SIDS, high seas, plastic pollution, etc. There is also a significant number of thematic and regional agreements, conventions and protocols relating to the ocean covering fisheries, ocean pollution, safety at sea, distress and search and rescue. However, some critical ocean issues, such as sea-level rise and chemical pollution, are not yet reflected in agreements and targets set at the international level. While sea-level rise is strongly related to the global warming, adaptation to it does not have an international coordination mechanism.

355. The opinion of the Executive Secretary was that humankind was on the verge of a historical moment in its relationship with the ocean. On the basis of new scientific knowledge, it is possible to reverse the decline in the health of the ocean and begin to live in harmony with the ocean. The way forward would be ethical, ecological and climate-friendly ocean management, based on scientific ocean planning for a sustainable ocean economy. But we still need to design it. However, in many countries around the world, the interface between ocean science and policy is not sufficiently mature to provide authoritative scientific guidance for effective national ocean action. We also need to transform ocean science and enable it to systematically generate solutions for ocean management. This is the main task of the Ocean Decade.
356. Dr Ryabinin also spoke briefly about the evolution of the ocean-related activities within the United Nations system. A positive division of labour between the different agencies with an ocean mandate is emerging. The role of the IOC is increasingly seen as the main provider of science for UN specialized agencies with an ocean mandate. Nevertheless, many ocean aspects of work are still carried out in parallel structures, with elements of duplication, when they could greatly benefit from integrated sustainable ocean planning underpinned by ocean science and observations. In addition, key stakeholders should stop working in silos and should develop a common plan of actions for the ocean in the UN system.
357. Summarising his analysis, the Executive Secretary suggested that the Action Plan on the implementation of the recommendations arising from the IOS Evaluation of the IOC's strategic positioning, being a first step in the right direction, would help the Commission to launch an even broader and longer-term consultation on how it can optimize and strengthen its support to existing UN conventions and frameworks. This consultation would involve IOC constituent bodies and external partners. The scope and modalities of this consultation could be reviewed by the IOC Executive Council in 2024. The consultation could contribute to the preparations of the United Nations Ocean Conference in Nice (France) in 2025. The IOC Assembly at its 33rd Session in 2025, scheduled shortly after the completion of the UN Ocean Conference in Nice, would review the results of the consultation in the light of the outcome of the UN Conference and agree on an appropriate course of future IOC action. The consultation would provide a perspective for further evolution of IOC as the home of ocean science in the UN system.
358. The representatives of 10 Member States took the floor.
359. The Assembly welcomed the opening of a strategic discussion on the positioning of the IOC with regards to the Commission's contribution to supporting Member States and other stakeholders in science-based sustainable ocean planning, in supporting ocean science in the implementation of UN environmental conventions and frameworks such as CBD, UNFCCC and BBNJ, and in developing scientific services to inform the sustainable ocean economy, within and beyond the time frame of the Ocean Decade.
360. Some Member States stressed the importance of anchoring any expansion of the IOC's work within its purpose and Statutes, and therefore to give priority to the consolidation of its core programmatic functions.
361. Several Member States stressed the importance of linking the scientific mission of the Commission to the need of end-users at large, with the aim of strengthening the science-policy-society interfaces while recognising the complexity of the landscape of international environmental frameworks and therefore the need to establish regular channels of communication between the providers and users of ocean science.
362. The Assembly welcomed the launch of the consultation.
363. The IOC Executive Secretary thanked Member States for their contribution and reconfirmed the importance of continuing to build the scientific base of the IOC programme but also stated that for IOC to be policy relevant, stronger engagement with policy and economic

actors would be required. He also stressed that the results of the consultation could enable the IOC to occupy a more prominent place within the UN system as a provider of ocean science, and would be an important tool for the next IOC Executive Secretary to drive the organization's strategic agenda.

364. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: Colombia, Kenya, Norway, Spain, United Kingdom, and USA.

365. The Assembly adopted Decision A-32/5.

## **6. GOVERNANCE, PROGRAMMING AND BUDGETING**

### **6.1 DRAFT PROGRAMME AND BUDGET FOR 2021-2025 (Draft 42 C/5)**

366. The Executive Secretary introduced this item.

367. An integral part of the UNESCO Draft Programme and Budget for 2024–2025 (42 C/5) submitted by the Director-General to the UNESCO Executive Board at its 216th session (May 2023), the document proposed for consideration by the Assembly presents the strategic focus for the final two years of the Approved Programme and Budget for the 2022–2025 quadrennium (41 C/5), endorsed by IOC Resolution A-31/2. As such, it represents IOC's ambition, focus and continuity, building on achievements made during the first biennium towards delivering on the Commission's mandate.

368. The Executive Secretary explained that in accordance with the decision of the UNESCO Executive Board at its 215th session (October 2022), two budget scenarios are presented with respect to the regular budget:

a. Base Case scenario – a total UNESCO programme budget of \$564.6 million, which represents an increase of \$30 million in assessed contributions compared to \$534.6 million for the 41 C/5 approved regular budget (2022–2023). This scenario responds to strategic priorities set by Member States, as well as projected increases in staff costs and the impact of inflation on non-staff costs. It foresees a significant reinforcement of the IOC with the allocation of \$13.5 million, which represents a budget increase of \$2.2 million (+19.7% variation compared to 41 C/5), including \$0.4 million to strengthen IOC's contribution to Intersectoral Programme 2 in the area of environmental and climate change education.

b. Zero Nominal Growth (ZNG) scenario – a total UNESCO programme budget of \$534.6 million, requiring programmatic and budget adjustments to absorb programme and staff statutory increases in inflation, significantly impacting UNESCO's capacity to deliver on the approved Programme for 2022–2025. It foresees the allocation of \$11.7 million to the IOC (+0.4 million or +3.1% compared to 41 C/5).

369. The Executive Secretary highlighted that the significant increase in the IOC's budget proposed in the Base Case scenario is a very encouraging direct response to Member States' support of the work of the Commission and a source of great motivation to the Secretariat.

370. If adopted, it will solidify the Commission's funding base, enhance its ability to mobilize and implement additional resources and empower it to:

- lay the foundations for sustainable ocean management, contributing to the attainment of many ocean-dependent Sustainable Development Goals;
- deliver quality research, observations, services and data & information products offering to its Member States the needed guidance on risk-resilient ocean planning;

- achieve a 100%-increase of the number of communities recognized as tsunami ready will be pursued through building awareness and preparedness, with a focus on SIDS and LDCs;
- scale up its work on the ground and strengthen the regional Sub-Commissions;
- develop a new on-line Ocean Decade Capacity Development Facility focusing on the training needs of SIDS and LDCs;
- expand its work in Ocean Literacy with specific targets under the UNESCO Intersectoral Programme 2; and
- increase capacity of Member States and civil society to access, communicate and use critical ocean information through policy-relevant assessments and knowledge products, combining UN processes and IOC's own assessments and reporting mechanisms on SDG 14 targets for which IOC is a UN custodian agency.

371. The document IOC/A-32/4.1.Doc(1) considered by the Assembly presents the narratives and the tables with the detailed presentation of the IOC's Draft 42 C/5 budget proposal in an Integrated Budget Framework (IBF), setting out the resources required for implementation for all sources of funds. It includes the proposed IBF budget based on the Base Case scenario, as well as the impact of the ZNG scenario with respect to all figures (programmes, global priorities, priority groups), as well as performance targets.

372. The Executive Secretary highlighted that the Zero Nominal Growth of regular programme resources—the only stable funding for core operations—will have a dramatic effect on the IOC ability to function at a time when the Commission is coordinating an unprecedented transformative undertaking of the UN Ocean Decade and is building foundation for sustainable ocean management.

373. Having updated the Assembly on the outcome of the Draft 42 C/5 review by the UNESCO Executive Board at its 216th session, he concluded by inviting Member States to support the Base Case scenario for the UNESCO's programme and budget for 2024–2025 as the minimum required to ensure that the Organization is able to adequately implement the mandate they entrusted to it.

374. The representatives of 10 Member States took the floor.

375. They welcomed the decision adopted by the UNESCO Executive Board at its 216<sup>th</sup> session under agenda item 44 '*Urgent requirement for increased and more stable resources to the Intergovernmental Oceanographic Commission (IOC)*'. The decision recommended that the General Conference of UNESCO in November 2023 decide an increase in the IOC's share of the UNESCO regular budget of [1%] to ensure it has adequate human and financial resources in order to fully implement its responsibilities. The Assembly thanked the initiators of this agenda item and all Member States that supported the adoption of the decision.

376. Member States were of the opinion that this very welcome outcome should allow the Secretariat to prepare revised budget scenarios prioritizing the stabilization of the core functions of the IOC, several of which have fallen below critical levels of stable funding. This will provide a sustainable basis for IOC to engage with ambition and confidence in meeting new expectations being placed upon it. Investment in stepping up the work on the ground, ensuring that no one is left behind and giving particular attention to vulnerable coastal States, will be of utmost importance, with strengthened Regional Subsidiary Bodies as the key vehicles for implementation.

377. Long-term viability will have to be taken into account by prioritising new opportunities so as not to disperse efforts and jeopardise the viability of core functions.

378. The Assembly adopted Decision A-32/6.1.



6.2 FOLLOW-UP TO RESOLUTION A-31/2 AND EC-55/2 ON REVIEW & UPDATE OF THE RULES OF PROCEDURES AND GUIDELINES FOR REPORTING ON IN-KIND CONTRIBUTIONS

379. The Chair of the Intersessional Financial Advisory Group, Prof. Karim Hilmi, introduced this agenda item.

380. He started by recalling that the process of revision of the IOC Rules of Procedure was started at the 31st session of the IOC Assembly in order to 'align and adapt them to the prevailing United Nations' best practices concerning online meetings facilitating informed and timely decision-making by IOC Member States'.

381. In accordance with resolutions A-31/2 and EC-55/2 and in line with the discussions of Member States in the Intersessional Financial Advisory Group and the Sessional Financial Committee, the revised text of the Rules of Procedure presented to the Assembly in this document is based on the following principles:

- in conformity with Article 6.B.3 of the Statutes, maintain a single set of the Commission's Rules of Procedure, to be formally determined by the IOC Assembly,
- revise the current Rules of Procedure on the basis of a distinction among general rules, rules applicable to the IOC Assembly and the IOC Executive Council, and rules applicable only to one of these bodies,
- refrain from any substantial review of the Rules of Procedure by reorganizing them, rather than truly reviewing them,
- improve clarity and align language versions, focusing on fixing only what needs to be fixed,
- submit draft guidelines for online meetings to the IOC Assembly along with the revised draft of the Rules of Procedure.

382. Prof. Hilmi highlighted that following Member States' decision to include in the Rules of Procedure a provision for holding online sessions, but only as an exceptional measure, and to develop guidelines on working methods for such online sessions, section I.13 'Online sessions' was added.

383. In response to Member States' decision to develop guidelines for consultations by correspondence, applicable both to the IOC Assembly and the IOC Executive Council, a separate new section I.14 'Consultation by correspondence' was added and current rule 23 (new rule 38) was amended to cover both governing bodies.

384. In addition, a list of online appendices to the Rules of Procedure is proposed for greater consistency. These texts are already adopted and available under various references, with the exception of the new Guidelines on the working methods for online sessions to be adopted by this Assembly.

385. Prof. Hilmi concluded by indicating that the text in front of the Assembly benefitted from in-depth discussions in sessions and intersessionally and, in his opinion as the Chair of the Intersessional Financial Advisory Group, it is respectful of Member States wishes.

386. As regards the reporting on in-kind contributions (IKCs), he recalled that in line with the more systematic and inclusive approach endorsed by the IOC Governing Bodies (IOC resolutions A-31/2 and EC-55/2), the pilot reporting exercise was launched for calendar year 2022 and the result presented to the Assembly as part of the Report on 2022–2023 (41 C/5) budget implementation as at 31 December 2022 in document IOC/A-32/3.2.Doc(2). The matter having been discussed in the Intersessional Financial Advisory Group, he invited Member States to participate in the work of the sessional Financial Committee in order to finalize the

recommendations and the reporting methodology for adoption by Assembly under agenda item 6.4, based on the proposal already favourably considered by the IOC Executive Council in document IOC/EC-55/5.1.Doc(2).

387. The representatives of two Member States took the floor. The Assembly thanked Dr Hilmi for his successful leadership of the Intersessional Financial Advisory Group. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: France.

388. The Assembly adopted Decision A-32/6.2.

### 6.3 DRAFT ACTION PLAN IN RESPONSE TO THE IOS EVALUATION OF THE IOC STRATEGIC POSITIONING

389. The Executive Secretary introduced this item.

390. He recalled that in September 2021, the UNESCO's Internal Oversight Service published *The Evaluation of the Strategic Positioning of IOC-UNESCO—IOS/EVS/PI/197* (the Evaluation). The Evaluation included a set of six recommendations and suggested actions. Its key findings and the management response were presented to the UNESCO Executive Board at its 212th session (212 EX/9).

391. The first Draft Action Plan was presented to the IOC Executive Council at its 55th session in June 2022 as document IOC/EC-55/3.2Doc.(1). Following the positive review by the IOC Executive Council and consultation of Member States through IOC Circular Letter 2912, the Draft Action Plan, including updates on progress, where relevant, was presented for endorsement by the Assembly as document IOC/A-32/6.3.Doc(1).

392. The Executive Secretary gave a brief overview of the context in which the Draft Action Plan was prepared and the rationale behind proposed specific actions, their timelines and modalities of implementation. He stressed that Member States discussion and feedback at this Assembly was essential in order to properly guide Secretariat in its work moving forward and reporting on progress both to IOC and UNESCO governing bodies. In addition to the exchange in the plenary, in-depth consideration of the proposals by the Financial Committee, should allow to achieve this.

393. The Executive Secretary explained that the specific decision made by the IOC Executive Council at its 55th session requesting him to prepare 'an estimate of the budget, including the needs in human resources, necessary to sustainably deliver IOC's core programmes and to expand its activities in response to increasing demands of Member States and other stakeholders' (cf Resolution IOC-XXX-3 and Resolution EC-55/2) was implemented through IOC Circular Letter 2912. The Draft Action Plan in response to the IOS Evaluation is the first step in the implementation of this vision. However, given its strategic scope and mid- to long-term ambition, it required further discussion by Member States and was therefore included in the agenda as a separate item 5 – 'IOC and the Future of the Ocean'.

394. The following Member States chose to provide records of their plenary intervention on this agenda item for the informational annex to the meeting report: France.

395. The Assembly adopted Decision A-32/6.3.

### 6.4 REPORT BY THE CHAIRPERSON OF THE FINANCIAL COMMITTEE

396. The Chair of the Financial Committee, Prof. Karim Hilmi, reported to the Assembly on the results of the Committee's examination of the items entrusted to it by the plenary in addition to the statutory ones foreseen in the Rule of Procedure 8.1(c).

397. The representatives of 9 Member States took the floor.

398. The Assembly expressed its high appreciation to the Chair of the Financial Committee Prof. Karim Hilmi, for his effective and efficient way of leading the work of the Financial Committee in a truly inclusive and collegial spirit. Once again, this constructive approach allowed the Committee to complete its expanded and challenging mandate in a very limited period of time. The Assembly thanked the United Kingdom and all Member States that supported Decision 44 adopted by the UNESCO Executive Board at its 216<sup>th</sup> session recommending an increase in the IOC regular budget to the UNESCO General Conference. The Assembly concluded by thanking all countries that participated in the sessional Financial Committee for their commitment and the IOC Secretariat for supporting this work.

399. The Assembly adopted IOC Resolution A-32/4 submitted by Argentina, Angola, Australia, Belgium, Brazil, Cameroon, Canada, China, Côte d'Ivoire, Egypt, France, Gabon, Germany, Grenada, Italy, Japan, Kenya, Morocco, Norway, Portugal, Russian Federation, Senegal, South Africa, Spain, St Vincent and the Grenadines, Thailand, Togo, United Kingdom, USA, Viet Nam.

#### 6.5 ELECTIONS OF THE OFFICERS OF THE COMMISSION AND MEMBERS OF THE EXECUTIVE COUNCIL

400. The Chair of the Nominations Committee, Mr Frederico Saraiva Nogueira, reported on this item.

401. The Nominations Committee met four times during the session. Sixteen Member States attended the meetings of the Nominations Committee, representing all five IOC electoral groups.

402. The Assembly noted that there was only one candidate for the position of Chair.

403. The Assembly noted that there was only one candidate for each of Electoral Groups I, II, III, IV and V for the positions of Vice-Chair.

404. The Assembly noted that there were 9 candidates for the remaining Member State seats on the Executive Council for Electoral Group I, and that the number of those remaining seats was also 9. The candidate Member States were therefore declared elected.

405. The Assembly noted that there were 3 candidates for the remaining Member State seats on the Executive Council for Electoral Group II, whereas the maximum number of those seats was 2, and consequently a ballot would be needed for Electoral Group II.

406. The Assembly noted that there were 8 candidates for the remaining Member State seats on the Executive Council for Electoral Group III, and that the number of those remaining seats was also 8. The candidate Member States were therefore declared elected.

407. The Assembly noted that there were 9 candidates for the remaining Member State seats on the Executive Council for Electoral Group IV, and that the number of those remaining seats was 7, and consequently a ballot would be needed for Electoral Group IV.

408. The Assembly noted that there were 8 candidates for the remaining Member State seats on the Executive Council for Electoral Group V, and that the number of those remaining seats was also 8. The candidate Member States were therefore declared elected..

409. After one ballot to elect the representatives to the Executive Council from Electoral Groups II and IV, the Executive Council for the next intersessional period was declared elected as listed in Annex \_\_\_\_\_ to the present report.

410. Two Member States suggested that the technical arrangements for the elections be aligned with UNESCO's practices.

411. The Assembly adopted Decision A-32/6.5.

6.6 33rd SESSION OF THE ASSEMBLY  
AND 57TH SESSION OF THE EXECUTIVE COUNCIL

412. Dr Ryabinin reminded the Assembly of the recommendations of the 56th session of the Executive Council, acting as the Steering Committee for this Assembly, on the dates and duration of the 57th session of the Council in 2024 and duration of the 33rd session of the Assembly in 2023 (dec. EC-56/4).

413. The Executive Council took note, for June 2024: of the Preparatory meeting of the third UN Conference on the Ocean on 7–8 June; of the International Coordinating Council of the Man and the Biosphere (MAB) Programme at Headquarters on 14–20 June; of the 78th session of WMO Executive Council on 10–14 June; and in 2025 of the UN Ocean Conference in Nice on 9–13 June.

414. One delegation warned against the increasing number of programme meetings at UNESCO during the month of June and called for a more global reflection on the subject at UNESCO level. Small Permanent Delegations find it very difficult to keep up with all the meetings in June and are often called upon to attend World Heritage Committee sessions away from headquarters in July, which also complicates the holding of the IOC Assembly and its elections in July.

415. The Chairperson invited comments on the holding of an Ocean Science Day during the Assembly session, as had been the case this year, and on the duration of the Assembly. On the latter point, he felt it would be more prudent to keep the plenary session at 6.5 days.

416. There was no comment on the Ocean Science Day. The representatives of four Member States took the floor.

417. The Assembly adopted Decision A-32/6.6.

**7. ADOPTION OF RESOLUTIONS AND MODALITIES  
FOR THE FINALISATION OF THE REPORT**

418. The Chairperson thanked the Rapporteur Ms Devin Burry from USA for her excellent work in support of the session.

419. The Chair of the Resolutions Committee, Prof. Yutaka Michida, reported briefly that 9 Member States took part in the work of the Committee which met three times and considered draft resolutions under four agenda items, namely 4.5, 4.10, 4.12 and 6.4.

420. The IOC Chair then invited the Assembly to examine four draft resolutions with a view to their adoption. One Part of the draft summary report of the discussions at the present session was presented to the Assembly in English for information.

421. The representatives of one Member State took the floor.

422. The Assembly took note that all decisions and resolutions would be made available online in the four working languages of the Commission soon after the closure of the session and that the narrative report would be available online in the languages within a month after the closure.

423. The Assembly further requested that the statements Member States sent to the secretariat for the record of the Summary report be also made available by 15 July 2023.

424. The Assembly adopted Decision A-32/6.7.

## **8. ADOPTION OF RESOLUTIONS AND MODALITIES FOR THE FINALISATION OF THE REPORT**

425. In concluding the session, the Chair reiterated his personal appreciation of the Executive Secretary's support over his 8-year tenure and thanked him for his service to IOC on behalf of all the IOC Member States with a token of appreciation.
426. In response to the Chair and various messages from the floor, the Executive Secretary addressed a personal remark to the outgoing Chair on the meaning of the word captain, in reference to Captain Ariel Troisi: "the one who knows where to go and keeps the team engaged and safe through difficult times". Vladimir Ryabinin praised the kindness, strategic leadership, understanding, and sense of humour of Ariel Troisi over his two terms of office as IOC Chair and offered him the gavel and a personal gift.
427. Captain Ariel Troisi thanked the Member States for the confidence they had placed in him and the Vice-chairs with whom he had worked during his two terms of office. He also thanked Peter Haugan, the President before him, to whom he could always turn for a second opinion. He assured the new Chair, Prof. Michida, that he would be able to offer his advice to the IOC Officers as and when required.
428. The Assembly congratulated the Chair for his dedicated work to the Commission during two consecutive terms.
429. The new Chair expressed deep appreciation of Ariel Troisi's leadership and invited the elected Officers, delegates of IOC Member States and representatives of partner organizations to work actively during the intersessional period.
430. The Executive Secretary once again thanked the partners who provided the coffee breaks during the session: the Permanent Delegations of Canada, Japan, the Korean Institute of Ocean Science and Technology, and the Nippon Foundation/Seabed 2030 Project.
431. The Assembly met in plenary session during six days, considered 38 items on its agenda and approved 28 decisions and 4 resolutions. The plenary meeting was supported by 3 preparatory meetings, 5 regional meetings, 4 side meetings, 13 information meetings and 15 meetings of sessional committees during the session. The gender ratio of Assembly Member State representatives and all participants, including speakers, was 0.86 : 1 (female:male).
432. The Chair of the Commission, Mr Ariel Hernan Troisi, closed the 32nd Session of the Assembly at 18h13 on Friday 30 June 2023.