



**INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION  
(of UNESCO)**

**Thirty-first Session of the Assembly**

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Item **3.6** of the Provisional Agenda

**REPORT OF THE IOC ACTIVITIES (2020–2021)  
TO THE FORTY-FIRST GENERAL CONFERENCE OF UNESCO**

Summary

According to Article 3.2 of the Statutes of the Intergovernmental Oceanographic Commission ([IOC/INF/1148](#)) and Rule of Procedure 49.2 ([IOC/INF/1166](#)), the IOC prepares regular reports on its activities, which shall be submitted to the General Conference of UNESCO. The present report covers the period 2020–2021 and focuses on the main achievements in the implementation of the second biennium of the IOC Programme and Budget 2018–2021, contributing to IOC's Medium Term Strategy 2014–2021 and UNESCO Medium-term Strategy 2014–2021 (37 C/4) with respect to Strategic Objective 5 "Promoting international scientific cooperation on critical challenges to sustainable development".

Upon consideration by the Assembly, the report will be presented to the 41<sup>st</sup> General Conference of UNESCO as 41 C/REP.9, indicating that a more complete information, including analysis by IOC function, can be found in the report of the IOC Executive Secretary to the 31<sup>st</sup> Session of the IOC Assembly ([IOC/A-31/3.2.Doc\(1\)](#) & [Addendum](#)).

The proposed decision(s) is referenced IOC/A-31/Dec.3.6 in the Provisional Action Paper ([IOC/A-31/AP Rev.](#)) of the 31st Session of IOC Assembly.

## **Main Achievements**

The focus of the Commission in 2020–2021 continued to be on the preparation of the United Nations Decade of Ocean Science for Sustainable Development 202–2030. IOC spared no effort in engaging all Member States, UN partners and key civil society stakeholders in regional and global consultations, to seize this once-in-a-life-time opportunity to harness advances in ocean science, achieve a better understanding of the ocean system and deliver science-based solutions for the 2030 Agenda for Sustainable Development. Effective use of UN-Oceans consultations reinforced the collaborative approach to ensure a meaningful division of labour among the IOC's partners in the UN system. This work was completed successfully as the United Nations General Assembly in December 2020 took note, with appreciation, of the Decade's Implementation Plan.

1. IOC's leadership took an active part in the negotiation process on an International Legally Binding Instrument (ILBI) on the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction (BBNJ). With new opportunities presented by the Ocean Decade, IOC is well positioned to support the future agreement, particularly concerning capacity development in ocean science and transfer of marine technology, to make this instrument universal, serving all its future Parties and developing countries, in particular. In October 2020, with a view to inform the negotiation process, the Secretariat published a Non-Paper on existing and potential contributions of IOC-UNESCO to the BBNJ process ([IOC/INF-1387](#)) in the areas of marine research, data, capacity development and the transfer of marine technology.
2. Significant progress was made in the development of the methodology to support Member States' implementation of and reporting on the two SDG target indicators 14.3.1 and 14.a.1, for which the IOC has been assigned the custodian role in the UN system. The 2020 edition of the *Global Ocean Science Report (GOSR 2000)* was launched on the occasion of the IOC's 60th anniversary celebration, on 14 December 2020. In addition to establishing a solid basis for measuring progress towards the attainment of SDG Target 14.a, the report provides the baseline for ocean science capacity and related investments and will serve as a monitoring tool for the Ocean Decade.
3. At the interface of science and policy, IOC was able to develop a consolidated, multi-partner research and observation agenda for ocean carbon in support of the implementation of the relevant provisions of the UN Framework Convention on Climate Change (UNFCCC) and its Paris Agreement. It continued to effectively support the Global Ocean Acidification Observing Network and now hosts the secretariat for the coordination of the International Partnership for Blue Carbon. In the context of the UN inter-agency Group of Experts on the Scientific Aspects of Marine Environmental Protection, IOC, together with IMO, has begun working on developing the guidelines for biofouling and prevention of spreading of invasive marine species.
4. In the second half of 2020, the World Ocean Assessment II received endorsement from UN Member States that also agreed on the 3rd cycle of the Regular Process (2021–2025), calling for synergies with the Ocean Decade in order to strengthen the ocean science-policy interface across disciplines and at all levels.
5. The main focus of the Global Ocean Observing System (GOOS) community was on building partnerships and concepts for three GOOS Ocean Decade programmes: CoastPredict, Observing Together and Ocean Observing Co-Design. These programmes are based around the idea of integrating GOOS in different dimensions, creating partnerships to better deliver for science and society, and experimenting with projects to better serve scientific and societal users. The operational technical support centre, formerly known as JCOMMOPS, was rebranded as OceanOPS, publishing a new five-year strategy and producing a new edition of the annual *Ocean Observing Report Card*. The card reports on the status of observing networks in terms of implementation, metadata and data flow, standards and best practices, and on their contribution to the operational, climatic, and ocean health dimensions of the mission of GOOS.

6. Similarly, the ocean data community is mobilising to step up its input to the Decade. The work on an architectural blueprint for the Ocean Data and Information System (ODIS) is well under way. Three new major projects were launched: IOC Ocean InfoHub, with focus on Latin America and the Caribbean, Africa and Pacific SIDS, the Pacific Islands Marine bioinvasions Alert Network and the OceanTeacher Global Academy 2. The development of two data visualization apps—the GOOS BioEco Portal and the Harmful Algal Blooms Portal—has started. The Ocean Biodiversity Information System celebrated its 20th anniversary and continued to be a broadly cited support to researchers.

7. The development of the regional tsunami warning systems continued under four regional intergovernmental groups (NEAMTWS=North-Eastern Atlantic, CARIBE-EWS=Caribbean and Adjacent Regions, PTWS=Pacific and IOTWMS=Indian Ocean), with global harmonization and standard setting roles facilitated through the Working Group on Tsunamis and Other Hazards related to Sea-Level Warning and Mitigation Systems. The Secretariat continued to work closely with expert working groups and Member States to sustain and enhance the regional systems and pursue relevant initiatives. 137 Member States, of which 28 SIDS and 9 African countries, have now established National Tsunami Warning Focal Points/National Tsunami Warning Centres. The South China Sea region has now its own dedicated Tsunami Advisory Centre, serving as a warning system for nine countries in the region. National Tsunami Warning Centres in France, Greece, Italy, Portugal, and Turkey were accredited as regional Tsunami Service Providers, following peer-review evaluation of their functions and achievements. The performance-based community recognition programme “Tsunami Ready” is now piloted in three regions (Caribbean, Pacific and Indian Ocean), with over 25 communities recognized in 15 countries, including 10 SIDS.

8. IOC continued to focus on developing the capacities of its Member States, in particular through its Regional Subsidiary Bodies—WESTPAC, IOCARIBE, IOCAFRICA and IOCINDIO. The second International Indian Ocean Expedition has engaged more than 50 African scientists in research cruises organized by South Africa. Representatives from Comoros, Kenya, Madagascar, Mauritius, Mozambique, South Africa and United Republic of Tanzania were trained in the development of tsunami inundation and evacuation maps, and representatives from Comoros, Kenya, Madagascar, South Africa and United Republic of Tanzania mastered the Standard Operating Procedures (SOPs) for tsunami warning and emergency response. All African Member States bordering the Indian Ocean participated in IOWave exercises, with United Republic of Tanzania, Kenya and Seychelles conducting community evacuations. Training potential has been substantially increased through the 16 Ocean Teacher Global Academy (OTGA) Regional/Specialized Training Centres, as well as the WESTPAC Regional Training and Research Centres that together provided training to nearly 1,000 individuals. In addition, two capacity development needs assessments have been implemented that will allow to better focus the capacity development activities of all IOC global programmes and regional subsidiary bodies (RSBs) and to facilitate mobilization of extrabudgetary resources. In the IOCINDIO region, the two category 2 centres under the auspices of UNESCO, in Islamic Republic of Iran and in India, provide valuable contributions and ensure regional ownership of programmes. Agreements under negotiation with the South Pacific Community and the Indian Ocean Rim Association will be an important step in this regard.

9. The Ocean Decade is an exceptional opportunity for the developing countries to strengthen their capacities in ocean research in support of the sustainable ocean economy. IOC partnered with the Western Indian Ocean Marine Science Association and the secretariat of the Nairobi Convention (UN Environment) to organize “the Regional Consultation workshop for the UN Decade of Ocean Science for Sustainable Development 2021–2030 for Africa and the Adjacent Islands States” which was hosted by the Government of Kenya from 27 to 29 January 2020 in Nairobi. The workshop, as well as the webinar on “Co-designing the Ocean Science we need for Africa” (3 November 2020), was the opportunity to identify regional needs and priorities in terms of transforming knowledge systems, accelerating transfer of marine technology, enabling training and education, fostering science-policy dialogues and building capacities, in alignment with the African Union’s initiatives. With the support of the Government of Egypt, IOC is preparing a Decade kick-off conference on ocean science in support of Africa’s sustainable development to take place in December 2021.

10. The Implementation Plan for the Decade fosters synergies between actions towards the achievement of SDG 5 (Gender equality) and SDG 14 (Oceans) by focusing on the role of women in ocean science, improving global ocean knowledge and supporting informed and inclusive decision-making. The *Global Ocean Science Report* with its gender-disaggregated data continued to serve as one of the progress monitoring mechanisms.

11. With the support of the Swedish Government, IOC has launched the Ocean Literacy Platform and produced a toolkit which was tested through the ASPNet in schools in 36 countries. In collaboration with the International Blue Carbon Initiative, IOC developed a methodology to measure blue carbon storage, to assist national reporting to the UNFCCC, and contributed to the Organization's participation in COP-24 and 25 by raising the awareness of the rule of the ocean in climate change regulation. At a first meeting in November 2020, IOC Chair and staff and experts of the Scientific and Technical Advisory Body of the 2001 Convention on the Protection of the Underwater Cultural Heritage, agreed to work together in the development of a strategic framework identifying priority actions for the underwater cultural heritage community, which can inspire and stimulate "Decade Actions". The Ocean Decade will offer an opportunity and a framework for stepping up existing and developing new synergies in a co-design approach with other sectors.

### **Partnerships**

12. Having put forward its experience in supporting nations in the implementation of Marine Spatial Planning (MSP) at the 2018 Sustainable Blue Economy conference in Nairobi, IOC broadened its partnership with the European Commission by launching a new joint initiative to promote cross-border MSP. Following successful implementation, a new joint MSP Roadmap is under discussion for the period 2022–2025. The Global Environmental Facility remains an important partner of IOC in several key areas of work, with new projects launched in Sargasso Sea and in relation to Biofouling. Collaboration with IHO in relation to GEBCO and ocean mapping is working out well, both organisations provide oversight to the development of the Seabed 2030 project and will ensure that it contributes to the plan of the Decade. Collaboration with UN Division for Ocean Affairs and the Law of the Sea (DOALOS) increased in the course of 2020 to ensure that the Decade Implementation Plan was aligned with the provisions of UNCLOS and to facilitate its review by the UN General Assembly.

13. Belgium (Government of Flanders), Canada, China, Japan, Norway, Portugal, Republic of Korea, Sweden and United Kingdom, as well as RevOcean, provided financial contributions towards the preparation of the Decade Implementation Plan. Norway continued to be the main donor of non-earmarked funds to the IOC Special Account, facilitating implementation with focus on collectively agreed priorities. An additional \$2 million contribution from the Norwegian Agency for Development Cooperation will allow to significantly step up IOC's capacity development efforts in favour of Africa and SIDS.

14. Belgium (Government of Flanders), China and Australia continued to support key IOC offices and their programmes in, respectively, Ostend (Belgium), Perth (Australia) and IOC Sub-Commission for the Western Pacific (WESTPAC).

15. A number of promising partnerships with the private sector were successfully pursued, including through collaboration with the UN Global Compact's Sustainable Ocean Business Action Platform. IOC established a partnership with the Velux Foundation to reach out to the philanthropy sector through an engagement event in February 2020 at the Royal Academy of Science and Letters of Denmark. Agreements were also signed with RevOcean (including its ODF/C4IR) and the Schmidt Ocean Institute.

16. In follow-up to our commitment at the 'Our Ocean' Conference (23–24 October 2019, Oslo, Norway), IOC has announced the constitution of an Alliance for the United Nations Decade of Ocean Science for Sustainable Development (2021–2030). The launch of the Ocean Decade Alliance took place through "A Brave New Ocean", a virtual event that brought together ocean experts and leaders

from around the world to highlight the immense challenges and opportunities that ocean knowledge can offer humanity to build a better and stronger post-pandemic world. Opened by the Director-General, the event brought together a number of founding members of the Ocean Decade Alliance, including H.E. Hon. Uhuru Kenyatta, President of Kenya; H.E. Erna Solberg, Prime Minister of Norway; H.R.H. Princess Lalla Hasnaa of Morocco; H.S.H. Prince Albert II of Monaco; and H.E. Hon. Marcelo Rebelo de Sousa of Portugal, as well as leading philanthropic institutions like the Schmidt Ocean Institute and the Bertarelli Foundation, sports personalities, scientists and energetic young activists.

### ***Challenges and remedial actions***

17. Overall, the main challenge for the Commission's small secretariat is the dual task to raise, not only the resources necessary to maintain its core operational programmes, but also to lead and coordinate the Decade preparation phase. A new approach to fundraising and outreach is being implemented, based on highlighting the societal benefits of IOC's work and demonstrating the return on investment in ocean science and observation.

18. Communication and outreach efforts have intensified to present the objectives of the Decade and engage a broader range of stakeholders.

#### *Impact of the COVID-19 pandemic on the implementation of 40 C/5*

19. The impact of the COVID-19-related confinement was of particular concern for IOC's operational programmes—the Global Ocean Observing System and the International Oceanographic Data and Information Exchange—delivering the essential information needed in marine, climate and weather forecasts and warnings.

20. IOC conducted a number of surveys and continued to work closely with its partners in the relevant communities to assess the complete impact through 2021, with reallocation of resources from cancelled activities and reduced travel. It is, however, becoming increasingly clear that data gaps will be created in the global ocean data archives due to cancelled research cruises, lack of maintenance of observing equipment during the pandemic, reduction in staff during and possibly after the pandemic and possibly reductions in operational budgets, which will be monitored through the GOSR Data Portal.

21. The intergovernmental coordination of the Global Tsunami Warning System activities was limited to mostly online meetings, with governance meetings postponed to a later date or held online when necessary. Activities were quickly adapted to the new "working normal", including through: (i) preparation of guidelines for tsunami warning services, evacuation and sheltering during COVID-19 and (ii) survey on the impact assessment of COVID-19 pandemic on Seismic Tide Gauge and Tsunameter Networks, and operations of Tsunami Service Providers.

22. The availability of the Ocean Teacher Global Academy e-learning platform allowed a quick re-orientation and organization of online courses as from June 2020, thus maintaining the IOC capacity development efforts at the planned level.

23. Some of the major UN meetings had to be postponed to the end of 2021 or 2022, as is the case of the second UN Conference on the Ocean, now moved to 2022. Alternative actions to sustain the engagement of stakeholders were identified, such as the kick-off Conference for the Ocean Decade, with the support of the Government of Germany, which was redesigned into a series of high-level events and Decade laboratories to be conducted over the course of 2021.