

Ocean Affairs and the Law of the Sea

Contribution of the Intergovernmental Oceanographic Commission of UNESCO to the Report of the Secretary-General

DEVELOPMENTS IN THE FIELD OF OCEAN AFFAIRS AND THE LAW OF THE SEA

Pursuant to United Nations General Assembly resolution 75/239 of 31 December 2020, entitled “Oceans and the law of the sea” the information below represents the contribution of the Intergovernmental Oceanographic Commission of UNESCO (IOC) to the report of the Secretary-General.

MAIN DEVELOPMENTS OVER THE PERIOD

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3. Two meetings of the Interim Decade Advisory Board were held during this period; in April and in May 2021. These meetings considered and made recommendations on the endorsement on Decade programmes, as well as providing advice on the conceptual framework for monitoring and evaluation for the Decade and commencing preparation of the second Call for Decade Actions No. 02/2021. Following this meeting, the IOC Executive Secretary [made decisions on endorsement of a first set of 28 Decade programmes and contributions](#). Six UN-led Decade Actions were also registered. These Decade Actions represent the first building blocks of the Decade and will form a foundation for the further build-out and population of the Decade Action Framework.

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also measured by the GOSR. It is important to assess the impacts of the COVID-19 pandemic on such strategic investments in relation to the 2030 Agenda. The next edition of the GOSR, expected to be published in 2025, will allow to measure the possible impact of the global pandemic on ocean science in the long-term, including inter alia employment, diversity in ocean science, core funding, additional investments, conferences, observations and publications.

10. In the context of the UNESCO-wide response to the COVID-19 pandemic, the IOC Secretariat will lead a complementary study to the GOSR2020 to assess the immediate response to the COVID-19 pandemic in the fields of ocean science investment and capacity, with the aim to inform science and policy action to mediate negative impacts, thus supporting efforts to ensure that indispensable services based on knowledge generated through ocean science are maintained and are not put in danger. The study, 'GOSR2020 snapshot study: Impacts of the COVID-19 pandemic on ocean science investments and capacities', due in 2022, will also allow to update some of the benchmark information required for the Monitoring & Evaluation framework of the UN Decade of Ocean Science for Sustainable Development (2021-2030).

collaborative efforts; (ii) coordination of capacity building in science; (iii

that can mitigate the drivers and impacts of ocean deoxygenation and provide appropriate adaptation measures where mitigation is not possible. It is envisaged that GOOD will be implemented through several projects carried out by different consortia in different regions of the world ocean.

19. The IOC Executive Council at its 51st session agreed to establish a new IOC working group focusing on multiple stressors. In light of the COVID-19 pandemic, the first meeting of the IOC

oceanographic and marine meteorological observing communities; and a mission to monitor and report on the status of the global ocean observing system and networks, to use its central role to support efficient observing system operations, to ensure the transmission and timely exchange of high quality metadata, and to assist free and unrestricted data delivery to users across, operational services, climate and ocean health. Since the disbandment of JCOMM, its Expert Team on Operational Ocean Forecasting Systems is working under GOOS. They have focused on the development of a Guide to bring together information about the ocean monitoring forecasting products and the systems that produce these products, and the development of two training courses open to IOC Member States' experts in June 2021.

GOOS at the heart of the Ocean Decade

24. In response to the Call for Decade Actions, the GOOS Core Team spearheaded the development with partners of three related programme proposals. Together, they place the transformation and co-design of observations and predictions as the foundation of much of the exciting work the Ocean Decade will carry out,44 Tw 11.0(uc)30.8((n)2cn 55.2n(.5(a)2u9.76 45)hey),7 a, /4

the work of the programme, carried out in partnership, will include identifying ocean information user priorities, deploying new in situ ocean observing equipment and developing and delivering tools and training. When community users become aware of the real value of ocean observing and the data it produces to their lives, support for ocean science will grow.

28. These three programmes designed around a theme of increasing integration for GOOS will be a central part of a larger community of practice of ocean observing and prediction programmes and projects in the Ocean Decade. Some of these will spearhead innovation and transformation of biological and ecological ocean observations, the development of ocean forecasting systems, and observing network-based improvements, all aimed to underpin the information used for disaster risk reduction and sustainable development and responding to the Ocean Decade challenge.

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development of the Ocean Data and Information System (ODIS) architecture, as well as develop communities of practice (information systems and their end users) in three pilot regions: Africa; the Latin America and Caribbean region; and the Pacific Island Developing states. Thus, it aims to improve access to global oceans information, data and knowledge products for management and sustainable development. The project will not be establishing a new database, but will be supporting discovery and interoperability of existing information systems. The OIH Project commenced in April 2020 with the recruitment of a project manager and a number of national and regional stakeholder consultations. Since June 2020, three regional communities of practice (Africa, LAC and PSIDs) have been established, a virtual Steering Group meeting was held over two sessions, and a Chair of the Steering Group was elected in an online voting process.

40. The **OceanTeacher Global Academy** (OTGA) (<https://www.oceanteacher.org>) entered its second phase in April 2020. A call for hosting training centres resulted in a total of 16 Regional and/or Specialized Training Centres being selected. These Centres are in South America, Africa, Europe, Asia and the Pacific. The OTGA global network of Regional and Specialised Training Centres is

March (22 messages over 17 hours). In nearby Pacific Island Countries, warning or advisories were issued soon after, with some evacuations taking place, followed by cancellations after either no or only small waves were observed. In the eastern Pacific, the Galapagos, and parts of Central and South America had forecasts of 0.3–1 m. Maximum observed amplitudes reported by PTWC were 0.56 m at Norfolk Island west of the epicenter and 0.48 m in the Galapagos, Ecuador to the east northeast. On Raoul Island, the largest of the Kermadec Islands and near to the epicenter, data communication were knocked out by the earthquake, including for the sea level gauges that would have been used to confirm the severity of any tsunami from the M8.1 earthquake. The event was recorded on nearby New Zealand (NZ) and United States DART systems and used by the New Zealand Geosciences and the Pacific Tsunami Warning Center (PTWC) to validate forecasts during

“campaign” with three main events focused on Global Target (e) of the Sendai Framework for Disaster Risk Reduction 2015–2030. An online live screening of the 52’ documentary “Tsunamis: Facing a Global Threat” (ZED productions) by French filmmaker Pascal Guérin was broadcast. The documentary showcased field research activities facilitated by IOC-UNESCO in the aftermath of the 2018 tsunami in Palu, Indonesia. The live streaming was followed by a panel discussion with the filmmaker and top experts on 13 October.

57. In November, a series of regional (CARIBE-EWS, Indian Ocean, North Eastern Atlantic and Mediterranean Sea Pacific Island Countries and Central and South America Pacific Ocean) webinars were organised by the regional IOC teams in charge of coordinating regional tsunami early warning systems, in cooperation with UNDRR regional offices. This series of webinars focused on the need to connect state-of-the-art scientific expertise with local community preparedness to ensure science-based tsunami local plans are in place including through IOC-UNESCO led Tsunami Ready recognition processes.

58. On 5 November, a virtual high-level event during the Third Tsunami Museum Conference showcased how museums contribute to keeping the memory of past disasters and lessons learned alive. The event featured recorded testimonials of tsunami survivors. Several Member states including Egypt, Mexico, Nigeria, Philippines, Thailand, and USA also organized events in the framework of the WTAD 2020.

63. There is rapid technological development in different types of observation systems and GlobalHAB is jointly with SMHI/Sweden organizing an international workshop to test, inter-compare and train participants in various automated and non-automated observation technologies. Unfortunately, the workshop has been postponed to 2022 due the COVID-19 situation.

64. A new GlobalHAB initiative is addressing the mass occurrences of the macro algae Sargassum in both West Africa and the Caribbean. A sub-committee is established with an initial focus to join a GESAMP Task Team on Sargassum in organizing an Open Science Meeting (OSM) on Sargassum. This will involve the GESAMP technical secretaries of the sponsoring agencies that have indicated an interest in this topic (IOC, UN Environment, FAO, UNDP, WMO, IAEA) It is intended that the resu6.1(o t)4.4(h)78()22.1(e)2 .6(di)13.6(c7.6(esO5(at)24.4(S)2.1(M)1s)9(w)13.6(i)13.6(l)1

75. Significant progress was made in the collection of new data provided by Member States to IOC towards the SDG Indicators 14.3.1 and Target 14.a.1, for which the IOC has been assigned the custodianship role. Member States followed IOC's invitations to contribute to the *Global Ocean Science Report (GOSR) 2020* online questionnaire—the basis for 14.a.1 reporting and to the newly established ocean acidification data portal for 14.3.1 reporting, developed in collaboration between

Caribbean and national institutions of the beneficiary countries. In the Mediterranean, IOC-UNESCO strengthened the collaboration with the Priority Action Programme/Regional Activity Centre (PAP/RAC) to support regional trainings and align objectives for the activities to be jointly implemented in 2020 and 2021, including the potential celebration of the Mediterranean Coast Day in 2021 in the WestMED on the theme of transboundary Marine Spatial Planning. The institutional collaboration in between IOC Secretariat and the Union for the Mediterranean was strengthened thanks to the close collaboration established in between both institutions in the context of MSPglobal.

79. Several regional and national consultations with representatives of maritime sectors were organised in collaboration with the National Focal Points in the Pacific, the Mediterranean, the Caribbean, the Macaronesia, the Gulf of Guinea, the Indian Ocean and Small Island Developing States to review, together with sector representatives, the spatial dimension of maritime activities such as fisheries and aquaculture; oil and gas; tourism and cultural heritage; maritime transport and defence; and environment. At national and local scale, IOC staff and consultants established effective dialogues with national authorities to increase cooperation between national stakeholders and experts from the national institutions involved in MSP and blue economy processes.

80. The 5th and the 6th MSPforums planned in April 2020 in Athens (Greece) and in November 2020 in Scheveningen (The Netherlands) were cancelled, together with the agreement to postpone the organization of the 3rd International MSP Conference in 2022 if the sanitary conditions allow it.

81. The MSPglobal network is increasing and expanding across our ocean despite the limitations of the past months. The network is providing valuable inputs to share with the members of the MSPglobal International Expert Group in charge of developing the guidance on transboundary MSP that is currently in the final phase of development and will be launched in September 2021 in English, Spanish, French and Arabic. China offered the Secretariat to translate the guidelines into Chinese too.

82. The MSPglobal website (www.mspglobal2030.org) is now fully operative, contents are updated progressively and the multilingual section is now available in English, Spanish, French, Arabic and Chinese. The website is also available in Chinese.

strengthening the stewardship of an economically and biologically significant high sea area – the Sargasso Sea. As defined in the PIF, the overall objective of the Project is the facilitation of a collaborative, cross-sectoral ecosystem-based sustainable stewardship mechanism for the Sargasso Sea through improvement in the knowledge base and strengthened frameworks for collaborative management and governance. A full size project will be submitted to the GEF in October 2021.

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91. The workshop on “Co-designing the Ocean Science we need for Africa” held online on 3 November 2020 offered a crucial opportunity to co-design mission-oriented research strategies and actions for the region. The workshops emphasized the need to strengthen and build upon existing mechanisms and frameworks, and align with the African Unions initiatives. This includes the Agenda 2063, which recognized the Blue Economy as a major contributor to continental transformation and growth, and the 2050 African Integrated Marine Strategic Plan of Action ([AIMS2050](#)), which provides a road for increased wealth creation from Africa's oceans and seas by developing a sustainable thriving blue economy.

92. Capacity development was identified as a priority, in particular the improvement of infrastructure and facilities for research, provision of training for scientific and technical staff, as well as translation of science to policy. In particular ocean research in the region should be strengthened through stronger integration of sciences, greater investment in ocean observing systems and improved science-policy interface. Other issues highlighted include the role of youth and job creation, marine spatial planning, climate change impacts on the coastal zones, land-sea interactions and pollution, and innovative financing models for the ocean economy.

93. The following were identified as some of the key areas that the region should focus on during the Decade:

- (i) Harnessing the demographic dividend by empowering the huge pool of youthful population. The focus should be on getting them into ocean sciences through focused ocean literacy programmes, supporting skills development and mentoring to enable them fit in the job market and creating new opportunities for employment. This will facilitate the unlocking of scientific excellence and the creation of the new generation of ocean experts.
- (ii) The Decade should catalyse research in the following fields: marine renewable energy and deep ocean water applications; bioprospecting, biotechnology and pharmaceuticals; mariculture and offshore aquaculture; climate change impacts and the oceans-climate nexus; baseline monitoring of essential ocean variables; mapping ecosystems and habitats; and linking the research results to societal applications.
- (iii) Improving the quality and quantity of research outputs. Scientists and institutions should think beyond producing publications to transforming lives through innovation and robust application of ocean science. They should be able to demonstrate that the research results have been applied and impacted on the society.
- (iv) Ocean research in the region should be strengthened through stronger integration of sciences, greater investment in ocean observing systems and improved science-policy interface. New partnerships should be developed, supported by a new ocean-climate finance, and improved ocean literacy and education to modify social norms and behaviour.
- (v) Establishment of university-based ocean innovation incubator hubs, supported by the private sector, to serve as a conduit to transform research results to action via technological development that is adapted to regional and local contexts and led by African researchers.

94. The Government of Egypt will host the regional Kick-Off workshop for the UN Decade of Ocean Science for Sustainable Development for Africa and the Adjacent Islands in December 2021 in hybrid format.

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

95. IOCARIBE Member States are implementing the Recommendations of their [15th session](#). In particular those initiatives for Disaster Risk Reduction and Ecosystem-based management, including: (i) IOCARIBE-GOOS establishment of a pilot project on Improvement of Hurricane

