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| Summary  This document has been prepared pursuant to Decision [EC-LI/4.9](http://www.ioc-unesco.org/index.php?option=com_oe&task=viewDocumentRecord&docID=23402), by which the Executive Council decided in 2018 to pursue ocean literacy activities and requested the Secretariat to develop an action plan for review by the IOC Assembly in 2019. The action plan for Ocean literacy presented in paragraph 9 has 6 outputs or priorities, 16 activities and 29 actions. The first part of the document presents the framework of IOC ocean literacy activities and the list thereof over the period 2017–2019.  Ocean literacy is a fundamental tool to enhance ocean knowledge, but also to encourage citizens and stakeholders to have an active role in the implementation of sustainable actions on both individual and collective levels. A transparent and accessible ocean whereby all nations, stakeholders and citizens have access to ocean data and information, technologies and have the capacities to inform their decisions, is one of the societal outcomes of the UN Decade of Ocean Science for Sustainable Development (2021–2030).  Financial and administrative implications: See paragraph 10. The budget for the development of Ocean Literacy will be defined within the decision on budgetary allocation as part of the overall IOC Programme and Budget draft resolution XXX-(12).  The proposed decision is referenced as IOC-XXX/Dec.11.2 in the Action Paper (IOC-XXX/2 prov.) |

### Background

1. Pursuant to Decision EC-LI/4, the present action plan was developed to assist local and national governments, academic and research institutions, as well as international organizations, non-governmental organizations and donors, in developing a coherent approach in the design and implementation of future ocean literacy activities, especially within the framework of the upcoming UN Decade of Ocean Science for Sustainable Development.
2. Concerned about ensuring coherence between the ocean literacy activities and the IOC global programmes and regional activities, the action plan was developed through a large consultation within the Secretariat and the IOC regional subsidiary bodies. The present document also benefitted from contributions of national ocean literacy experts on the occasion of several thematic workshops and conferences, and in particular during the first international ocean literacy conference (Venice, 4–6 December 2017). Moreover, the action plan reaffirms the cross-cutting and strategic nature of ocean literacy as stated in output 5: “Visibility and awareness increased” of the IOC Capacity Development Strategy, 2015–2021 ([IOC/INF-1332](https://unesdoc.unesco.org/ark:/48223/pf0000244047.locale=fr)).

### Ocean Literacy as an evolving framework

1. Addressing ocean issues through conceptual ties to science and global societal issues have captured the concern of the international community. However, a disconnection exists between what scientists know about the ocean and what the public understands. Although standards for science teaching and literacy are established, the fundamental role of the ocean is not emphasized in formal education. Moreover, an increased interest in the ocean space is observed due to the development of ocean economy, the commitments on the implementation of the 2030 Agenda, with particular reference to SDG 14 and its targets, the negotiation of new legal instruments, and the need of providing scientifically sound solutions to emerging threats to the ocean. For this reason, a variety of actors and stakeholders need to have a better understanding of ocean characteristics and processes, as well as of the importance of ocean science, observation and data for managing ocean activities and research.
2. In this evolving ocean landscape, strengthening scientific knowledge of the ocean and human impact on it, applying that knowledge for societal benefit, and building institutional capacities for sound management and governance—some of the major areas of action of the IOC—are becoming increasingly relevant for the society as a whole. The IOC is committed to support its Member States to base their decisions and actions on the best available science, and to promote the use of science among all entities involved in the management of ocean resources.
3. Ocean literacy is defined as the understanding of human influence on the ocean and the ocean influence on humans. Ocean literacy is not only about increasing awareness on the state of the ocean, but it is about providing tools and approaches to transform ocean knowledge into actions to promote ocean sustainability. Its success will depend, on the one hand, on our capacity to enhance the science-society-policy interface, and, on the other hand, on empowering a wide range of stakeholders, i.e. communities and networks of business, universities, research centres, and civic groups to share responsibility in addressing urgent threats that are causing a decline in ocean health. Furthermore, increasing ocean literacy at the national level, and at all educational levels, is a foundational element to enable capacity development in the national marine science sector. While national and regional organizations and associations are critical to promote ocean literacy nationally and regionally, the role of the IOC will be to ensure international collaboration, set quality standards, exchange good practices, as well as to enhance the capacity of Member States in achieving ocean literacy priorities (see Outputs in the following draft action plan).
4. Ocean literacy is a fundamental tool to enhance ocean knowledge and to encourage citizens and stakeholders to have an active role in the implementation of sustainable actions on both individual and collective levels. While at the beginning, ocean literacy was developed for the specific purpose to fit the U.S. science curriculum for K12, it has then, in both concept and approach, been adopted and adapted to a broader context. Nowadays, Ocean literacy is seen as a way to advance sustainable production practices, to develop sound public marine policy, to promote a more responsible citizenry, and to encourage young people to start a career in the blue economy or in marine science. Ocean literacy as a concept and approach is radically evolving from being a tool to be applied in formal education and training contexts to a tool and an approach for society as a whole, aimed at triggering actions towards ocean sustainability. Open access to ocean information, increased interactions between the academic and societal actor communities, and ocean literacy for all should capacitate all citizens and stakeholders to have a more responsible and informed behaviour towards the ocean and its resources.
5. For the above-described arguments, “A transparent and accessible ocean whereby all nations, stakeholders and citizens have access to ocean data and information, technologies and have the capacities to inform their decisions” is one of the societal outcomes of the UN Decade of Ocean Science for Sustainable Development (2021–2030).

**IOC Ocean Literacy Activities (2017–2019)**

1. The high-level United Nations Conference to Support the Implementation of Sustainable Development Goal 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development) convened at United Nations Headquarters in New York from 5 to 9 June 2017 provided the platform to further promote the ocean literacy concept and framework internationally. A voluntary commitment [#OceanAction15187](https://oceanconference.un.org/commitments/?id=15187) (Ocean Literacy for All: A Global Strategy to Raise the Awareness for the Conservation, Restoration, and Sustainable Use of Our Ocean) was submitted by UNESCO in partnership with many of the institutions mentioned above and other relevant partners. The main aim of the initiatives outlined in the Voluntary Commitment is to develop a global partnership to improve public knowledge across the world citizenry regarding our global ocean. Several activities have been coordinated by the IOC in this framework:
   1. **First International Ocean Literacy Conference**. As part of the implementation of the voluntary commitment “Ocean Literacy for All”, the IOC of UNESCO organized the First International Ocean Literacy Conference in Venice (4–5 December 2017), at the UNESCO Regional Bureau for Science and Culture in Europe, with the financial support of the Swedish Government. This event can be considered as the first step in a collaborative process to put together initiatives worldwide toward shaping a global framework for ocean literacy, and to invite all relevant stakeholders to converge around a coherent approach to Ocean Literacy. The conference addressed topics covered by the Ocean Literacy for All Voluntary Commitment and, with a participatory approach, discussed activities to be developed in the next three years in preparation for the next UN Ocean Conference (2020). Furthermore, the discussion focused on ways by which the initiative can best support SDG 14 implementation, as well as means to develop in tune with the UN Decade of Ocean Science for Sustainable Development (2021–2030). The conference had an international focus and gathered, for the first time, over 100 participants from 30 countries covering Europe, Africa, North and South America and Asia. A wide variety of speakers—educators, scientists, activists, journalists, contemporary art curators and foundations—joined. Research, art and communication working together for the ocean will be essential in the Ocean Literacy process. Good practices in formal and non-formal education as well as examples of successful public-private partnerships were presented to create the basis for an exchange amongst the participants.
   2. **Ocean Literacy for All – A toolkit**. The two-part of this Manual ([IOC/2017/MG/80 REV.](https://unesdoc.unesco.org/ark:/48223/pf0000260721.locale=fr)) produced by UNESCO’s Regional Bureau for Science and Culture in Europe (Venice, Italy) and the Intergovernmental Oceanographic Commission (IOC) is the result of the joint work and contributions by members of the global partnership led by IOC. It builds on the “Ocean Literacy for All” initiative, as well as the Call for Action issued at the end of the UN Ocean Conference, which calls on all stakeholders to “support plans to foster ocean-related education […] to promote ocean literacy”. The publication provides educators and learners worldwide with innovative tools, methods and resources to understand the complex ocean processes and functions and, as well, to alert them on the most urgent ocean issues. It presents the essential scientific principles and information needed to understand the cause-effect relationship between individual and collective behaviour, and the impacts that threaten the ocean health. Trust is that it will inspire citizens, scientists, educators and learners to take greater personal responsibility for the ocean, as well as work through partnerships and networks, sharing ideas and experiences and developing new approaches and initiatives in support of ocean literacy. As the marine environment takes centre-stage in the pursuit of sustainable development, today more than ever, it is crucial to ensure that citizens and policy-makers are well equipped in their knowledge of how human and ocean well-being are tightly connected. As there can be no sustainable future without a healthy ocean, Ocean Literacy is key to achieving the 2030 Agenda for Sustainable Development. The *Ocean Literacy for All – A Toolkit* is currently being tested in schools of 35 countries belonging to the UNESCO Network of Associated Schools. The results of the test will be available during fall 2019.
   3. **Ocean Literacy online platform.** The ocean literacy online platform ([oceanliteracy.unesco.org](https://oceanliteracy.unesco.org/)) aims at sharing resources, projects and people on ocean literacy for sustainable development. The platform will also have an intranet section to facilitate collaboration among those interested in developing joint ocean literacy activities.
   4. **Sea Change Project**. Sea Change was a EU Horizon 2020 funded project that aimed to establish a fundamental “Sea Change” in the way European citizens view their relationship with the sea, by empowering them, as Ocean Literate citizens, to take direct and sustainable action towards a healthy ocean and seas, healthy communities and ultimately a healthy planet. The project ran from March 2015 to February 2018, and in this context, the IOC of UNESCO developed the first Massive Open Online Course ([MOOC](https://platform.europeanmoocs.eu/course_from_abc_to_abseas_ocean_liter)) on ocean literacy attended by more than 500 participants from all over the world, and the [Roadmap for Science-Society-Policy Interface for Ocean Governance](http://www.seachangeproject.eu/images/SEACHANGE/SC_Results/D5.4.pdf).
   5. **Global Ocean Science Education (GOSE) workshop** – The 2017 edition of GOSE workshop (Venice, 23–25 May 2017) was sponsored and facilitated by the international Consortium for Ocean Science Exploration and Engagement (COSEE), the IOC, and the College of Exploration with the aim of bringing together ocean science, education, policy and business sectors.
   6. **Ocean Teacher Global Academy (OTGA) Training course on Ocean Literacy and Story Telling Maps** – It took place in Santa Marta (Colombia) on 13–15 September 2017, back to back with International Coastal Atlas Network (ICAN 8). This allowed linking both events in a complementary way, and ICAN experts to support the OTGA course as instructors and teachers. Fifteen students from all over South America participated and worked in teams to produce story telling maps on coastal and marine issues within an OL context. The course promoted collaborative work and cooperation and facilitated practical use of story mapping technology and as such cultivated networking of course participants across diverse fields of expertise, e.g. fisheries, ocean biodiversity or risk and disaster management across South America.
   7. **One Ocean Forum** – One Ocean Forum was held in Milan in October 2017, promoted by the Yacht Club Costa Smeralda, under the high patronage of Princess Zahra Aga Khan, the forum brought together major stakeholders, and prominent experts from different fields to open an international dialogue on marine preservation. The discussion developed around pressing issues such as marine litter, and climate change, and solutions such as blue technologies and innovation, and ocean literacy.
   8. **Collaboration with ocean literacy regional and national networks** – The IOC collaborates and participates in the conferences and activities organized at regional level by different marine science educators associations, such as the European Marine Science Educators Association (EMSEA), the Asia Marine Science Educators Association (AMEA), and the National Marine Educators Association (NMEA). The IOC has also facilitated the creation of national networks on ocean literacy such as the Italian Network, Ocean Literacy Italia.
   9. **Partnership with Sky Group** – The IOC has established a partnership with Sky and its Ocean Rescue Programme to produce short documentaries and special reports on ocean literacy (<https://tg24.sky.it/ambiente/sky-un-mare-da-salvare.html?intcmp=tg24_hottopics>).
   10. **Collaboration with Ocean School** – [Ocean School](https://oceanschool.nfb.ca/) is a joint initiative of Dalhousie University, the Ocean Frontier Institute and the National Film Board of Canada (NFB) to advance ocean literacy. Ocean School is a revolutionary, state-of-the-art, cutting-edge science educational programme that employs the newest immersive technologies and an action-driven inquiry-based learning methodology to build environmental awareness and social change. Through partnership with the IOC, Ocean School developed its first internationally-focused content, and worked to increase the accessibility and impact of the programme in the international community.
   11. **Organization of the first international training workshop on the Ocean School program** – The Ocean School Teacher Training Workshop in San José, Costa Rica (2–4 December 2018) was the first step to test the possibility of adapting the Ocean School programme and technology to different educational systems and geographical & cultural contexts. The geographical area and subject matter chosen for the module presented during the training were the movement of species from Cocos Island. Accordingly, twenty teachers from a number of Latin America and the Caribbean countries were selected to participate: Chile, Colombia, Costa Rica, Ecuador, Jamaica, Panama, Peru, Saint Lucia, and Trinidad and Tobago.
   12. **Ocean Literacy for multi-stakeholder processes in ocean governance workshop** – Fifteen professionals from around the world, including Ocean Literacy experts, journalists, researchers, foundations, Marine Spatial Planning practitioners, educators, representatives of NGOs and public authorities gathered at the UNESCO Headquarters in Paris, to participate to the First Ocean Literacy for multi-stakeholder processes in Ocean Governance workshop in November 2018. The aim of the workshop was to discover the most effective ways to communicate ocean knowledge to different audiences, and to share best practices and innovative views on the challenges of transforming knowledge into action, using creative and interactive Ocean Literacy tools. The event represented a bridge between the “Ocean Literacy for All” and the MSP Global joint initiative between the IOC-UNESCO and the European Commission to promote cross-border and transboundary Marine/Maritime spatial planning”.
   13. **Collaboration with other UNESCO Sectors** – Since 2014 the IOC is part of the Global Action Plan on Education for Sustainable Development promoted by the UNESCO Education Sector. Furthermore, the IOC is part of the UNESCO Youth Strategy coordinated by the Social and Human Sciences Sector. Finally, the IOC collaborated with the Communication and Information Sector to develop innovative tools for ocean science education.

**Ocean Literacy Action Plan**

1. In consideration of the UN sustainable development agenda, of the IOC priorities, and of the scientific plan of the UN Decade of Ocean Science, the following proposal for the Ocean Literacy Action Plan was developed on basis of discussions held during various workshops and conferences:

**Vision statement**

*Through international collaboration, exchange of good practices and creation of partnerships, IOC assists its Member States to reinforce the work on ocean literacy, so that ocean knowledge is fully leveraged to advance ocean sustainability*

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| **Output** | **Activity** | **Action** |
| 1. **Ocean literacy integrated into the curriculum of formal education systems around the world** | * 1. Ocean literacy national strategy | * + 1. Promote and assist with the establishment of national coordination groups involving ministries for ocean affairs, environment and education     2. Promote exchange of good practices between countries that have already a national strategy and those that do not     3. Promote coordination on a regional basis in collaboration with IOC Regional Sub-Commission |
| * 1. Teacher training | * + 1. Production of courses for teachers on ocean literacy     2. Production of online training on ocean literacy (link with OTGA) |
| 1.3 Collaboration with UNESCO ASPNet | * + 1. Development of pilot activities with schools belonging to ASPNet     2. Development of continuous collaboration with ASPNet National Coordinators on long-term activities |
| 1. **Dialogue enhanced and collaboration increased through the inclusion of diverse stakeholders in ocean literacy discussions** | 2.1 Promotion of multi-stakeholder partnerships | 2.1.1 Development of a database of organizations active in the field of ocean protection, ocean management, ocean science…  2.2.2 Establishing links and collaboration with existing networks, associations and organizations, e.g. Communities of Ocean Action, UN-Oceans |
| 2.2 Increase access to ocean knowledge | 2.2.1 Connecting different online sources of ocean knowledge, in particular IOC ODISCat, and CHM/TMT, to help the users navigate through different platforms and knowledge hubs  2.2.2. Coordinate with all IOC sections, programmes and units, and in close collaboration with the IOC Communications Officer, the development of ocean literacy products, such as policy briefs, factsheets, videos |
| 2.3 Organization of thematic and specific events | 2.3 Promote synergies on events related to ocean (e.g. European Maritime Day, World Oceans Day, World Ocean Summit, UN Ocean Conference) to organize events on ocean literacy for diverse stakeholders |
| 1. **IOC products and ocean literacy resources accessibility increased** | 3.1 Facilitate access to ocean science and ocean literacy resources | 3.1.1 Further develop the functionalities and interactivity of the IOC Ocean Literacy Platform, including accessibility options |
| 3.3 Improve multi-lingual and multi-perspective ocean literacy resources availability | 3.3.1 Identify resources for translation of essential ocean literacy resources  3.3.2 Development of database of ocean literacy resources in at least the four IOC working languages (EN, FR, SP, RU)  3.3.3 Production of ocean literacy resources that take into account different cultural approaches, and different target groups, including disadvantaged or under-represented groups  3.3.4 Increase the collaboration with other UNESCO Sectors and Programmes, e.g. LINKS, Underwater Cultural Heritage, Education for Sustainable Development |
| 1. **Capacity of stakeholders (e.g. governments, private sector, journalists, communities) to engage in ocean literacy discussions and activities strengthened** | 4.1 Development of ocean literacy trainings for diverse audiences | 4.1.1 Identification of ocean literacy training needs for different audiences (e.g. private sector, policy-makers, journalists)  4.1.2 Formulation of ocean literacy trainings content  4.1.3 Creation of opportunities for course delivery |
| 4.2 Providing a platform for continuous exchange of good practices | 4.2.1 |
| 4.3 Development of tools to communicate the environmental, social and economic dimensions of the ocean for society | 4.3.1 Compile existing tools to communicate the environmental, social and economic dimensions of the ocean for society  4.3.2 Assess the efficacy of those tools and verify the needs for additional tools  4.3.3 Partner with experts to fill gaps |
| 1. **Reinforced research on human behavioural change, science communication and impacts of ocean literacy to improve its efficacy** | 5.1 Establish experts networks on behavioural change, science communication, and impact assessment | 5.1.1 Identify experts in the field of behavioural change, science communication, and impact assessment |
| 5.2 Development of tools for behavioural change, science communication, and impact assessment | 5.2.1 In partnership with experts identify opportunities to develop innovative tools for behaviour change, science communication, and impact assessment |
| 5.3 Promotion of research projects on behaviour change, science communication and impacts of ocean literacy | 5.3.1 Verify the existence of projects on behaviour change, science communication and impacts of ocean literacy  5.3.2 Define what gaps needs to be filled in those research areas |
| 1. **Resource mobilization reinforced** | 6.1 In-kind opportunities | 6.1.1 Fostering partnerships to increase in-kind support |
| 6.2 Financial support by Member States, Private Sector and Philanthropies to IOC activities | 6.2.1 Resource mobilization from Member State, Institutional and Private Sector Partners |

**Financial implications**

1. It is estimated that costs related to the implementation of the above-mentioned activities, including staff cost, will amount to approximately US$480,000 per biennium.