

“The Global Ocean Science Report (GOSR) as a tool to assess global and regional capacity in ocean research and the IOC activities on Ocean Literacy.”

Multi-Stakeholder Dialogue And Capacity-Building Partnership Event
Segment 2: Capacity gaps and needs related to the conduct
of integrated assessments

Francesca Santoro, IOC-UNESCO

Ocean science – how, where and by whom?



The Current Status
of Ocean Science
around the World

Assesses for the first time the status and trends in **ocean science capacity around the world**.

A global record of how, where, and by whom ocean science is conducted.

Information used for reporting towards **SDG target 14.a** – 2030

Agenda for Sustainable Development



IOC-UNESCO, Global Ocean Science Report, 2017

<http://unesco.org/gosr>



Global Ocean Science Report

14.a

Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries.

At present -

no global mechanism for assessing and reporting on the level of human capacity, technology, investments, and needs of nations in ocean and coastal science, observations and services.

GOSR -

tool for the SDG on the Ocean, to optimize the sustainable use of marine resources, with regard to the needs of developing countries, includ. capacity-building & transfer of knowledge and technology

Includes the information to report towards the SDG indicator 14.a.1 – upgraded from Tier III to Tier II in November 2017

Key Findings

1. Global ocean science is '**big science**'.
2. Ocean science is **multidisciplinary**.
3. There is more equal **gender balance** in ocean science than in science overall.
4. Ocean science **expenditure** is highly variable worldwide.
5. Ocean science benefits from **alternative funding**.
6. Ocean science **productivity** is increasing.
7. International collaboration increases **citation** rates.
8. Ocean **data centres** serve multiple user communities with a wide array of products.
9. **Science-policy** interactions can occur through many avenues.
10. National **inventories** on ocean science capacity exist only in few countries.



From the first to the second edition of the GOSR

Baseline information to support the UN Decade of Ocean Science for Sustainable Development 2021-2030



Proposal for an International
Decade of Ocean Science for
Sustainable Development
[2021-2030]



1. New flagship report of IOC-UNESCO
2. First time data on human resources at the global level on ocean science
3. New visibility for IOC-UNESCO.
4. Editorial Board was engaged and advised throughout the process.
5. Indicator 14.a.1 included and moved up to Tier II.
6. New opportunities to present IOC's work at multiple venues.
7. Several countries confirmed that they are now establishing national reporting mechanisms on ocean science capacities.

IOC Ocean Literacy Activities



Output	Activity
1. Human resources developed	1.1 Academic (higher) education 1.2 Continuous professional development 1.3 Sharing of knowledge and expertise/ community building 1.4 Gender balance
2. Access to physical infrastructure established or improved	2.1 Facilitating access to infrastructure (facilities, instruments, vessels)
3. Global, regional and sub-regional mechanisms strengthened	3.1 Further strengthening and supporting secretariats of regional commissions 3.2 Enhance effective communication between regional sub-commission secretariats and global programmes as well as other communities of practice (incl. other organisations)
4. Development of ocean research policies in support of sustainable development objectives promoted	4.1 Sharing of information on ocean research priorities 4.2 Developing national marine science management procedures and national policies
5. Visibility and awareness increased	5.1 Public Information 5.2 Ocean Literacy
6. Sustained (long-term) resource mobilization reinforced	6.1 In-kind opportunities 6.2 Financial support by Member States to IOC activities

IOC Coordination of global OL activities



HOME ABOUT PROGRAMME CALL FOR ACTION PREP PROCESS SDG 14 VOLUNTARY COMMITMENTS DOCUMENTATION STAKEHOLDER ENGAGEMENT

Ocean Literacy for all: a global strategy to raise the awareness for the conservation, restoration, and sustainable use of our ocean.

by UNESCO (United Nations entity)

DESCRIPTION

SDG 14 TARGETS COVERED

DELIVERABLES

RESOURCES MOBILIZED

Most of us live our lives unaware of how our day-to-day actions impact on the health of the ocean, or how the health of the ocean impacts on our own daily lives. Ocean literacy is defined as an understanding of the oceans influence on you and your influence on the ocean.


The focus of the Ocean Literacy for ALL initiative is to develop a global partnership to raise the awareness on the conservation, restoration and sustainable use of our ocean and its resources and to build an improved public knowledge base across the worlds population regarding our global ocean.

Building on existing national, regional, and international ocean education initiatives, such as those conducted by the Trans-Atlantic Ocean Research Alliance, the International Consortium for Ocean Science Exploration and Engagement (COSEE), and the European and Asian Association of Marine Science Educators, this initiative aims at developing a plan to foster ocean awareness and ocean literacy education in all segments of society.


Ocean Literacy for All : Sustaining SDG 14 Goals Through Ocean Science Education and Ocean Literacy


June 6
5 - 6:30 PM
ROOM CRA


The focus of the *Ocean Literacy for ALL* Side Event is to further develop a global partnership to raise awareness on conservation and sustainable use of our ocean and its resources to bring about positive change in peoples' attitudes about our global ocean.





COSEE
CONSORTIUM FOR OCEAN SCIENCE EXPLORATION AND ENGAGEMENT



Permanent Mission of Italy to the United Nations



FEE
United Nations Educational, Scientific and Cultural Organization



Intergovernmental Oceanographic Commission



AORA
ATLANTIC OCEAN RESEARCH ALLIANCE
THE ATLANTIC: OUR SHARED RESOURCES
Shared Vision Shared Future


CIENCIA VIVA


OCEAN FRONTIER INSTITUTE


NFB


SEA CHANGE
OUR OCEAN. OUR FUTURE.


COLLEGE OF EXPLORATION

IOC Ocean Literacy Activities

International Ocean Literacy Conference



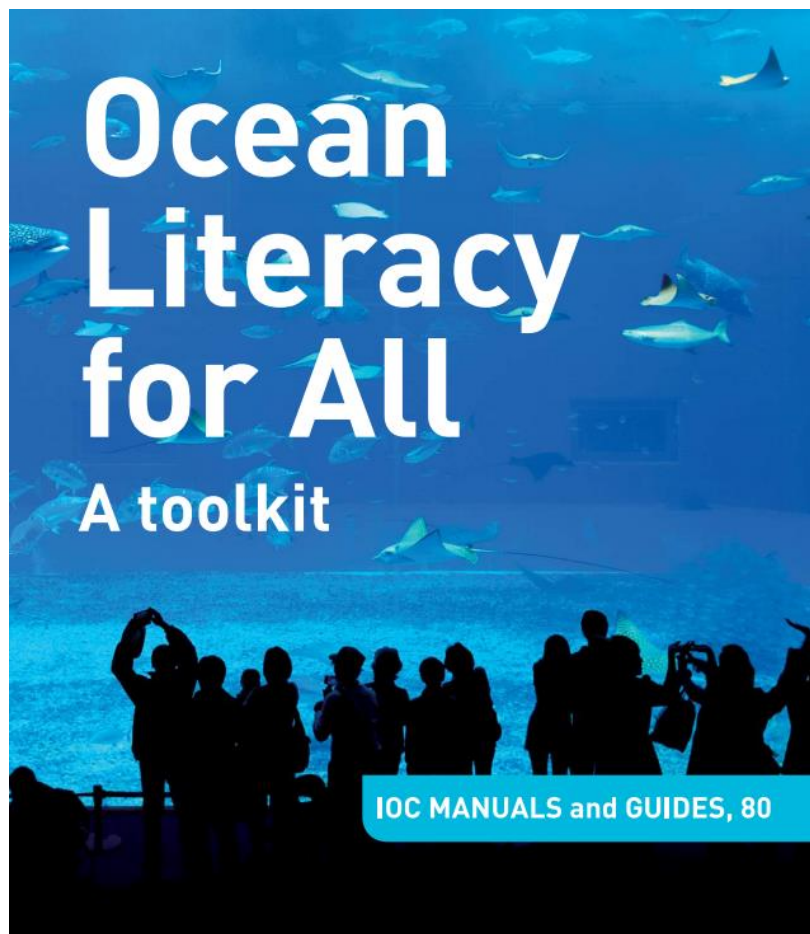
The international conference will be hosted by the UNESCO Regional Bureau for Science and Culture in Europe with the financial support of the Swedish Ministry of the Environment and Energy. It will be honoured by the presence of Gesine Meissner, Member of the European Parliament; Peter Thomson, UN Special Envoy for the Ocean; Barbara Degani, Vice-Minister of the Environment and Protection of Land and Sea of Italy; Vladimir Ryabinin, Executive Secretary of the Intergovernmental Oceanographic Commission of UNESCO; and, Francesca von Habsburg, Thyssen-Bornemisza Art Contemporary.

The conference will discuss topics covered by the UNESCO Ocean Literacy for All voluntary commitment to the June 2017 UN Ocean Conference; develop an Ocean Literacy for All road map for the next 3 years, in preparation for the next UN Ocean Conference; and, debate ways and means by which the Ocean Literacy for All initiative will best support the UN's Sustainable Development Goal 14 and develop in tune with the proposed International Decade of Ocean Science for Sustainable Development (2021-2030) - the ocean we need for the future, a voluntary commitment by UNESCO's Intergovernmental Oceanographic Commission.

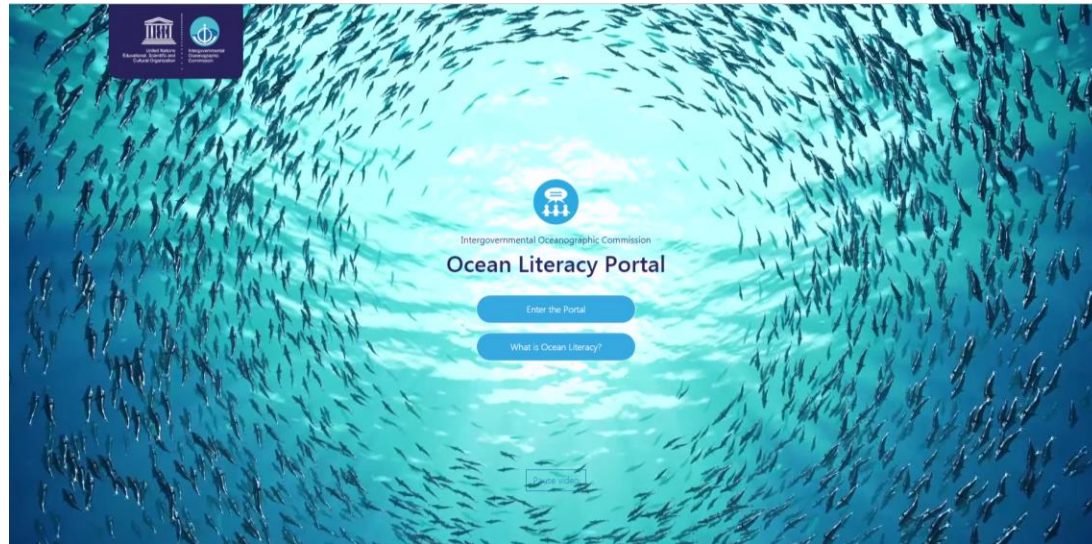
- Ocean Literacy Priority Areas

- **School curriculum:** Fostering the integration of ocean literacy into the curriculum of formal education systems
- **Educator training:** Providing mechanisms to bolster educator training
- **Bringing stakeholders together:** Establishing mechanisms to bring more stakeholders into national and international ocean literacy discussions
- **Policy and strategic planning:** fostering the creation of ocean literacy strategies at national, regional and international level
- **Accessibility:** Improving accessibility of ocean literacy resources, especially by improving translation, targeting disadvantaged and under-represented groups
- **Specific ocean literacy resources, programs and tactics:** develop and deliver a wide variety of ocean literacy resources, programs, and other communication and education tactics to advance ocean literacy among target audiences
- **Capacity Development:** strengthen the capacity of media and journalists, government, private sector, decision-makers, scientists, communities, indigenous groups, and other stakeholders to engage in ocean literacy discussions
- **Research:** conduct more research on behavior change, science communication, and the impacts of ocean literacy to improve the efficacy of ocean literacy strategies and activities

IOC Ocean Literacy Toolkit



IOC Ocean Literacy Portal



Find resources for



Ocean Literacy around the World



Featured Projects [see all](#)



Sea Change

The Sea Change project aims to establish a fundamental "Sea Change" in the way European citizens view their relationship with the sea, by empowering them, as Ocean Literate citizens

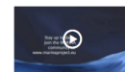
[See project](#)



ResponSEable

ResponSEable is funded by Horizon 2020 and is mapping European marine research and knowledge to further our understanding of complex human-ocean relationships and the economic bene

[See project](#)



MARINA

The MARINA project will engage these actors in order to share knowledge, include the citizens' vision and societal needs, create a synergy between research&innovation and the enviro

[See project](#)



AtlantOS

The overarching objective of AtlantOS is to achieve a transition from a loosely-coordinated set of existing ocean observing activities producing fragmented, often monodisciplinary

[See project](#)

Ocean Legacy

In 2006, The Pew Charitable Trusts and several partners launched the Global Ocean Legacy project in an effort to establish the world's first generation of great marine parks.

[See project](#)

More platforms



Meet the Ocean Literacy Experts [see all](#)

Ocean Literacy for multi-stakeholder processes

OCEANLITERACY.UNESCO.ORG

MANIFESTO

FIRST MEETING OF THE EXPERT GROUP ON OCEAN LITERACY AND MULTI-STAKEHOLDER PROCESSES FOR OCEAN GOVERNANCE FOR A SUSTAINABLE BLUE PLANET

OCEAN LITERACY IS RADICALLY EVOLVING FROM BEING A TOOL TO BE APPLIED IN FORMAL EDUCATION AND TRAINING CONTEXTS TO A TOOL FOR SOCIETY AS A WHOLE.

RECOGNIZING THE NEED TO PROMOTE ACTIONS TO TRANSFORM OCEAN KNOWLEDGE INTO ACTION, UNESCO ESTABLISHED THE "OCEAN LITERACY FOR ALL STRATEGY".

UNDER THIS STRATEGY, AND AS CONTRIBUTION TO THE PREPARATORY PHASE FOR THE "UNITED NATIONS DECADE OF OCEAN SCIENCE FOR SUSTAINABLE DEVELOPMENT (2021-2030)", THE INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION OF UNESCO (IOC-UNESCO) HELD THE "FIRST MEETING OF THE EXPERT GROUP ON OCEAN LITERACY FOR MULTI-STAKEHOLDER PROCESSES IN OCEAN GOVERNANCE", ON 19-20 NOVEMBER 2018, AT UNESCO HEADQUARTERS IN PARIS.

THE EVENT REPRESENTED A BRIDGE BETWEEN THE "OCEAN LITERACY FOR ALL" AND THE "#MSP GLOBAL": A NEW THREE-YEAR LONG INITIATIVE, THAT REPRESENTS A JOINT EFFORT BETWEEN THE IOC-UNESCO AND THE EUROPEAN COMMISSION.

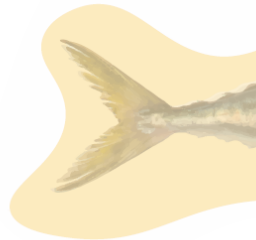
THE EXPERTS DISCUSSED HOW TO USE CREATIVE AND INTERACTIVE OCEAN LITERACY TOOLS TO COMMUNICATE OCEAN KNOWLEDGE TO DIFFERENT AUDIENCES.

CAN OCEAN LITERACY TOOLS AND APPROACHES SUPPORT MORE EQUITABLE AND TRANSPARENT MULTI-STAKEHOLDERS PROCESSES?

IT IS NECESSARY TO ADVANCE PROFESSIONAL CAPACITY-BUILDING, TO ENHANCE STAKEHOLDERS UNDERSTANDING ABOUT THE OCEAN, BY USING INTERACTIVE LEARNING TOOLS.

IT IS IMPORTANT TO UNDERSTAND HOW TO MAKE OCEAN KNOWLEDGE ACTIONABLE, HOW TO EMPOWER SOCIAL ACTORS TO DRIVE CONCRETE DECISIONS.

EFFORTS SHOULD BE FOCUSED ON CONNECTING DIFFERENT ONLINE SOURCES OF OCEAN KNOWLEDGE AND OCEAN DATA THROUGH COMMON PROTOCOLS (SUCH AS APPLICATION PROGRAMMING INTERFACES, APIs) THAT WOULD ENABLE THE USERS TO EASILY NAVIGATE THROUGH DIFFERENT PLATFORMS AND KNOWLEDGE HUBS.



CALL TO ACTION !

WE CALL ON:

MARINE SCIENTISTS, REPRESENTATIVES OF THE MEDIA, EDUCATION, BUSINESS, PRIVATE SECTORS, MARINE/MARITIME PLANNERS, OTHERS IN CHARGE OF MULTI-STAKEHOLDER GOVERNANCE PROCESSES AND SOCIETY AT LARGE:

TO JOIN AND ENRICH THIS DISCUSSION WITH ADDITIONAL PERSPECTIVES VALUES AND INSIGHTS THAT WILL CONTRIBUTE TO CONNECTING DIFFERENT BODIES OF KNOWLEDGE AND PRACTICE TOWARDS THE COMMON OBJECTIVE: MAINTAIN OUR OCEAN HEALTHY, PRODUCTIVE AND SAFE!

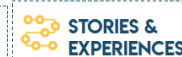
PLEASE JOIN THIS DISCUSSION AND SHARE:



TOOLS & METHODS



IDEAS



STORIES & EXPERIENCES



TO ACCESS THE MANIFESTO IN FULL FORMAT, CLICK [HERE](#).

HOW TO JOIN?

INSPIRE THE DISCUSSION ONLINE BY SENDING MATERIAL TO:

OCEANLITERACY@UNESCO.ORG

SUCH AS TEXT, PICTURES, SCREENSHOTS OF APPS, DIGITAL TOOLS, VOICE OR VIDEO RECORDINGS AND CHALLENGE YOUR FRIENDS, PEERS AND COLLEAGUES TO CONSIDER THE URGENCY OF CONSERVING OUR OCEANS, THE ROLE OF OCEAN LITERACY IN THE COLLECTIVE CONSCIENCE AND AS A COMPONENT OF MULTI-STAKEHOLDER MARINE GOVERNANCE PROCESSES SUCH AS MSP.



United Nations
Educational, Scientific and
Cultural Organization



Intergovernmental
Oceanographic
Commission



2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

Thank you very much!