“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?

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
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
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

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

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

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.
IOC Ocean Literacy Activities

International Ocean Literacy Conference

• 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

Ocean Literacy for All
A toolkit

Accès aux connaissances de l’océan pour tous
Kit pédagogique

Cultura oceánica para todos
Kit pedagógico
Ocean Literacy for multi-stakeholder processes

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”.


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, API) THAT WOULD ENABLE THE USERS TO EASILY NAVIGATE THROUGH DIFFERENT PLATFORMS AND KNOWLEDGE HUBS.
Thank you very much!