

## Ocean and the Law of the Sea

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

#### Executive Summary.

The Intergovernmental Oceanographic Commission (IOC) acts as the UN system-wide focal point for ocean science and ocean services under the guidance provided by the resolutions, decisions and instructions of the IOC Assembly. The report briefly highlights the main developments in IOC in the field of ocean affairs and the law of the sea. Key activities conducted since the last Secretary-General Report are as follows: **(i) in the field of ocean research**, a new assessment under GESAMP Sources, fate and effects of micro-plastics in the marine environment was produced; in the perspective of the UNFCCC COP21, several scientific coordination and public awareness activities contributing to better understanding of ocean and climate interactions have been conducted; a new major International Indian Ocean Expedition is being planned with the support of SCOR; **(ii) in the field of observing systems and data management**, the Global Ocean Observing System coordinated by IOC continued to expand through the establishment of the Tropical Pacific Observing System and the Deep Ocean Observing Strategy (DOOS); the Ocean and Biogeographic Information System has now reached 42 million marine species records; **(iii) in the field of early warning and services**, continued progress was made in strengthening the four regional tsunami warning systems coordinated by IOC including through tsunami wave exercises, launching and/or operating tsunami information centres, and holding a conference ; **(iv) in the field of assessment and information for policy**, support has been provided to the UN Regular Process (World Ocean Assessment) and a new Transboundary Water Assessment Programme has been implemented; **(v) in the area of sustainable management and governance**, a new set of guidelines on Marine Spatial Planning (MSP) have





Climate Platform, which brings together representatives from the research community and civil society with the aim of placing the ocean at the heart of international climate change debate, as well as raising public awareness on these issues. On 8 June 2015, with the support of France, Sweden, Monaco, Flanders (Belgium) and the Ocean-Climate Platform, IOC organized a World Ocean Day (WOD), which was recognized as an official COP-21 event, entirely dedicated to the ocean-climate issues. The programme of the Day included 4 scientific workshops, three roundtables, a UNESCO Open Campus for youth, and a concluding high-level political segment in presence of HSH Prince Albert II Monaco, H.E. President Remengesau of Palau, H.E. Prime Minister Stuart of Barbados, HE. Vice-President Faure of Seychelles, as well several ministers and ambassadors. The WOD provided an opportunity for a dialogue amongst stakeholders on the inclusion of ocean dimensions in the COP-21 process; on the contribution of ocean science to the climate system knowledge, on the human and social aspects of climate induced changes in the ocean, as well as potential solutions; and possible actions and strategies to mitigate climate change.

IOC is also contributing to the international scientific conference: “Our Common Future Under Climate Change” (7–10 July 2015), which is organized by France and hosted by UNESCO. Two sessions focusing, respectively, on ocean observation and marine ecosystems will be convened by IOC.

Scientific research remains a major driver of ocean observations and a factor of sustainability of ocean time-series. Shipboard biogeochemical time-series programmes provide the oceanographic community with the multi

International Council for Science (ICSU). The Third Meeting of the GOOS Steering Committee (24–26 July 2014, Barcelona, Spain) reviewed the GOOS work plan. It adopted a draft GOOS Strategic Mapping to link three major GOOS themes (climate, ocean services, and ocean health) to scientific applications, phenomena to sustainably observe, the Essential Ocean Variables (EOVs), and the observing networks that capture these EOVs. The Strategic Mapping captures the work of GOOS in identifying requirements, evaluating the observing system against performance targets, and in promoting standards and best practices in observation and data management and sharing.

and Mitigation System (ICG/NEAMTWS), the 10th session of the ICG for Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWS), the 26th session of the ICG for the Pacific Tsunami Warning and Mitigation System ICG (ICG/PTWS), and the 10th session of the ICG for the Tsunami and Other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE-EWS) as well as the Eighth Meeting of the Working Group on Tsunami and other Hazards related to Sea-Level Warning and Mitigation Systems (TOWS-WG) were all held as planned.

The first phase of Oman National Multi Hazard Early Warning System project (NMHEWS) will be coming to an end in 2015. Under a 2009 agreement with Oman's Ministry of Transport and Communication, IOC has been providing technical support for the NMHEWS development. The NMHEWS has now started its operational phase and the NMHEWS centre was officially inaugurated on 23 March 2015 back-to-back with an IOC organized scientific conference to conclude the project and the 10th Session of the ICG/IOTWS.

Four tsunami wave exercises have been carried out over the past year. The exercises are designed to assess the effectiveness of communication flows among the stakeholders involved, country readiness, and the efficiency of emergency procedures. The exercises also create considerable awareness in the public. The Tsunami Wave exercises (i) IOWAVE14 for the Indian Ocean took place on 9–10 September 2014; (ii) NEAMWave14 for the North East Atlantic, Mediterranean and connected seas took place on 28–30 October 2014; (iii) PACWave15 for the Pacific Tsunami Warning System took place on 2–6 February 2015; and (iv) CARIBEWave15 for the Caribbean took place on 25 March 2015.

of the UNGA Ad Hoc Working Group that governs the WOA process decided to postpone the review of the text to the period January–March 2015. IOC contributed to this review process by providing technical comments to the chapters related to its expertise. An IOC Circular Letter was also sent to IOC Member States in order to inform them on the review process and invite them to participate. As an observer, IOC continued to provide technical information and resources to the WOA Group of Experts. IOC also contributed financial resources to assist the UN Division for Ocean Affairs and the Law of the Sea (DOALOS) with the editorial process of the report.

IOC is leading the implementation of the marine components of the Transboundary Water Assessment Programme (TWAP) funded by GEF. The project started in March 2013 with the establishment of an Open Ocean and Large Marine working groups. A second meeting of the two working groups took place at IOC in April 2014. The project will provide a number of core ecological, socio-economic and governance indicators for the marine environment (64 Large Marine Ecosystems and Open Ocean areas) using globally available datasets. In order to

seas” to highlight the role of IOC in capacity development and ocean sciences. A new IOC brochure on IOC’s contribution to Transfer of Marine Technology was launched at the 16th meeting of the Informal Consultative Process on Ocean Affairs and the Law of the Sea (UNICPOLOS).

Regional Sub-Commissions continued to play their role as catalysts for regional programme delivery and the Sub-Commission for the West



ocean research, investment in research infrastructure and human capacity, as well as potential gaps in marine sciences programmes in need of further investments. It is envisaged to provide an