International engagement with United Nations ocean activities and processes

Over the past decade, CSIRO has been leading engagement in several International ocean initiatives and remains a strong participant in others – providing connection to national efforts and contributing to global well-being. This has a long-term benefit for Australia and CSIRO is regarded as a trusted advisor to multiple governmental agencies and departments on international ocean governance processes.

Global Policies and National Responses

The importance of the global ocean and the need to conserve marine biodiversity and sustain the benefits that the ocean provide to society is recognised at a broad policy level, with most countries explicitly committing to ambitions that reduce pressures on the ocean and conserving and sustainably utilising the ocean.

A range of international agreements, and country-led initiatives such as the High Level Panel (HLP) for a Sustainable Ocean Economy commit to integrated management of the ocean that supports biodiversity, ecosystem functioning and the benefits that humans derive from marine biodiversity. Similarly, the Decade of the Ocean efforts connect national commitments to global efforts (**Pendleton et al 2020**).

These international legally binding and non-binding agreements flow through to national policy and management frameworks and to national scientific research prioritisation processes that are required to support these frameworks.

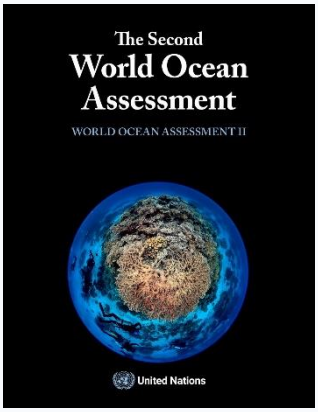
As recent examples, the Australian government's actions around nature-related financial disclosures, marine parks, world heritage, blue carbon accounting and ecosystem restoration are driven by its commitments under the Kunming-Montreal Global Biodiversity Frameworks and the UN Framework Climate Change Convention. The development of Australia's Sustainable Ocean Plan and the science priority setting is a direct commitment to the HLP.

Dr Karen Evans presenting during the Ocean Action Panels and Plenary sessions of the second UN Ocean Conference, Lisbon 2022.

Engagement supporting knowledge exchange and innovation

CSIRO's Sustainable Marine Futures program engages in regional and international research programs either directly or indirectly, with benefits to those researchers including building expertise networks, having greater access to funding opportunities, gaining insight into research priorities being set in other parts of the world and transfer of knowledge for use in Australian research projects.

As examples, CSIRO is engaging in international ocean observing and science programs and assessment processes that provide for direct connections between national marine observing, science and assessment systems and global systems. An example of this is CSIRO leadership of the Ocean component of the Australian State of the Environment (SoE) report 2016 (**Evans et al 2018)** and 2021 (**Trebilco et al submitted)** and engagement in and leadership of the United Nations first, second and third World Ocean Assessments (**Evans et al 2019, 2021).** This leadership requires considerable international travel to successfully lead multi-national teams.



Taking our approaches internationally

These connections also allow for the flow of innovations that are developed nationally into international processes, resulting in clear shaping of international processes and their outputs. The framework used for the 2016 SoE report was incorporated into the second World Ocean Assessment and innovations associated with engagement of Indigenous peoples and further development of the digital delivery of the 2021 SoE have influenced the content and delivery of the third World Ocean Assessment (**Evans et al 2024**).

Links to Global Ocean Observing

Observation and data management pipelines being developed internationally under the Intergovernmental Oceanographic Commission of UNESCO's Global Ocean Observation System (GOOS) are being guided, and in turn, reflected by Australia's Integrated Marine Observing System (IMOS) to which CSIRO is a key partner and the CSIRO-based Ocean Biodiversity Information System (OBIS) node (**Satterthwaite et al 2021; Martín Míguez et al submitted**).

The Global Ocean Observing System

CSIRO staff have been sequential co-chairs of the Global Ocean Observing System (GOOS) expert panel on biology and ecosystems and GOOS steering committee (2014-2024). This leadership role in coordinating biological observations of the ocean to deliver to the GOOS 2030 Strategy as called for and developed by the global ocean observing community.

Through their engagement in multiple international processes that support international agreements and national commitments, CSIRO's SMF researchers provide the connection point for others engaged in international ocean observing, research and ocean data management space to contribute to national multilateral negotiation processes.

Our research publications

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As Australia's national science agency and innovation catalyst, CSIRO is solving the greatest challenges through innovative science and technology.

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