Dear Ocean dialogue co-facilitators,

On behalf of The Deep Ocean Stewardship Initiative (DOSI) (www.dosi-project.org), I respectfully submit our plenary statement to the Ocean and Climate Change Dialogue (SB62). Please direct any further questions to Lisa Levin (llevin@ucsd.edu).

Contributors: Lisa Levin (llevin@ucsd.edu), Michelle Guraieb, Juliano Palacios Abrantes, Elva Escobar, Martina Gaglioti, Hannah Lily, Susanna Lindstrom

Statement body

The Deep Ocean Stewardship Initiative (DOSI) (www.dosi-project.org) is a global network of experts which seeks to integrate science, technology, policy, law, and economics to advise on ecosystem-based management of resource use in the deep sea. The Deep Ocean Observing Strategy (DOOS) (https://deepoceanobserving.org/) is a component of the Global Ocean Observing System (GOOS) and a UN Decade Program. It advances and coordinates observation and exploration in the deep ocean in service of science and society.

Topic 1: Ocean-based measures in NDCs

Because 75% of EEZs are deep ocean (> 200 m water depth), it can be an important consideration for NDCs. Protecting ocean ecosystems from seafloor to surface and from coast to the open ocean as a carbon sink will help strengthen ocean resilience to climate change, ocean deoxygenation and ocean acidification. The deep sea plays a key role in regulating the Earth's climate, through the carbon cycle and by regenerating nutrients for productivity. It is critical to avoid human activities that release carbon from the seafloor through disturbance or damage the biodiversity that underpins the sequestration of carbon in the deep ocean. We caution that proposed marine carbon dioxide removal (mCDRs) including biomass sinking technologies, many of which use the deep ocean as a repository for unwanted carbon, must be subject to rigorous, independent scientific analysis of effectiveness and environmental risk prior to decisions about implementation and incorporation into NDCs. Moreover, both Strategic Environmental Assessment (SEAs) and Environmental Impact Assessments (EIAs) are needed akin to those under the BBNJ Agreement.

Topic 2: The ocean under the GGA

The deep ocean should be explicitly considered in ecosystem-based adaptation indicators under the UAE–Belém work programme. Indicators that reflect carbon storage capacity, biodiversity integrity, and climate refugia in the deep sea would help track resilience across the full vertical extent of marine ecosystems.

Topic 3: Ocean-climate-biodiversity synergies

UNOC is advocating for a new era of ocean protection, respect, and unity based on scientific understanding, including for the deep ocean. The tight connections between biodiversity and climate provides opportunities for decision making and ocean action that is climate positive and biodiversity positive. The CBD, EBSAs, and BBNJ can align to develop integrated management strategies that include deep-sea climate-smart Marine Protected Areas (MPAs) to protect biodiversity hotspots and climate refugia, enhancing the resilience of marine ecosystems to climate change. Democratizing these decisions will require dedicated financing, co-design and capacity sharing across developed and developing countries.

Cross Cutting

Equitable access to ocean science and infrastructure is essential. Building and sharing capacity, tools and infrastructure is urgent to achieve better deep-sea biodiversity knowledge and protect deep-sea ecosystems to ultimately protect the climate. To date, most of the research has been conducted by only a small number of well-resourced developed nations, leaving most countries, especially developing nations, without substantial knowledge. Thus, knowledge underpinning our decisions about the deep sea is largely limited to the Northern hemisphere, but requires the participation of all nations. Strengthening international collaboration and governance for deep-sea research and data sharing is essential for understanding the interconnectedness of the climate, biodiversity, and ocean.

Sincerely on behalf of DOSI,
Juliano Palácios Abrantes

Juliano Palacios Abrantes
www.julianopalacios.com
Changing Oceans Research Unit
Institute for the Oceans and Fisheries
The University of British Columbia