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Ocean Pavilion Partners Unveil COP28 Dubai Ocean Declaration in Advance of UN Climate Conference

Declaration recognizes the critical role of the ocean in regulating climate change, calls for increased ocean observations

- Ocean science must lead climate solutions—call from dozens of marine research organizations
- 2023 saw record-breaking ocean changes, and scientists need more data to understand the implications
- COP28 represents a vital chance to recognize critical role of ocean in climate regulation

Woods Hole, Mass. (Nov. 20, 2023) — Partners of the Ocean Pavilion at COP28 and associated stakeholders are calling on world leaders to recognize the importance of the ocean in climate and support efforts to expand and improve ocean observations worldwide, including expanding coverage in under-observed regions. The COP28 Dubai Ocean Declaration comes ahead of the annual United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP), to be held in Dubai, United Arab Emirates, November 30 — December 12, and emphasizes the need for ocean science and observations as critical for understanding ongoing global climate changes.

The ocean plays a critical role in regulating Earth's climate and has absorbed more than 90% of the excess heat and almost 30% of the excess carbon dioxide caused by human activity. Consequences of these changes include extreme weather events, rising sea levels, ocean acidification, coral reef mortality, and an increase in low-oxygen zones. Despite this, international investment in ocean observing systems has not kept pace with the need for critical information to guide decision-making. As a result, a central theme of the COP28 Dubai Ocean Declaration is a call on world leaders to "support and foster efforts to greatly expand and improve ocean observations worldwide."

As the planet continues on a path to exceed 1.5°C increase over pre-industrial temperatures, the Intergovernmental Panel on Climate Change (IPCC) has concluded that society may need to bolster emissions cuts with atmospheric carbon dioxide removal to meet the goals laid out in the Paris Agreement. A 2021 report by the National Academies of Science, Engineering and Medicine found that natural ocean processes could help, but that accelerated research is needed to assess the benefits, risks, and potential for responsible scale-up of the most promising ocean-based carbon dioxide removal strategies.

The COP28 Dubai Ocean Declaration calls on the parties of the UN Climate Conference to adopt measures that enhance protections of the ocean and include several key points into the two-week long negotiations. According to the Declaration, "As the largest, most dynamic reservoir of carbon in Earth's climate system, the ocean can and must play a central role in efforts to achieve net-negative emissions and meet the goals laid out in the Paris Agreement. As a critical part of other life-sustaining planetary processes, the ocean must also be protected from continued anthropogenic change, including any climate mitigation efforts and especially as the rapidly changing Earth system becomes less predictable."

The Declaration underscores the call for drastic cuts of greenhouse gas emissions and immediate concrete efforts to curb other human-induced damages to the ocean, such as overfishing, habitat destruction, and marine pollution, in addition to advancing ocean-based solutions.

"The immediate priority is to drastically reduce carbon emissions within the next decade," said Peter de Menocal, President and Director of the Woods Hole Oceanographic Institution, a co-signer of the Declaration. "At the same time, we must explore ways to remove existing emissions from the atmosphere to meet the goals laid out in the Paris Agreement. The ocean presents viable, scalable opportunities for carbon dioxide removal. But independent science must lead, and this requires a new era of collaborative, international ocean observing to track changes in ocean carbon flows, ecosystem health, and to monitor the vital signs of a vast and rapidly changing ocean upon which we all depend."

Specific efforts spelled out in the COP28 Dubai Ocean Declaration include:

- Improve global stocktake estimates and measures of progress towards goals laid out in the Paris
 Agreement by providing better measures of carbon fluxes through the ocean and a more
 comprehensive view of Earth's ocean-climate system.
- Implement robust, cooperative environmental monitoring, reporting, and verification of new
 and emerging ocean-based carbon dioxide removal strategies to ensure measurable progress
 towards net-negative emissions while also protecting critical ocean ecosystems.
- Expand observing capabilities to measure the widest possible suite of essential climate and biological variables to better understand and address the impacts of climate change on the distribution of ocean life, marine ecosystem health, biomass, and biodiversity.
- Develop capacity among island nations and developing countries and refine methods to account for contributions by the ocean's natural functions and the blue economy to climate stabilization through nationally determined contributions and national adaptation plans.

"We need to scale up ocean observing systems to fully understand climate impacts and build a more resilient society," said Margaret Leinen, Vice Chancellor for Marine Sciences at UC San Diego, and Director of Scripps Institution of Oceanography. "With this Declaration, we want negotiators at COP28 to prioritize supporting ocean observations like Argo and other technologies that give us the full picture of what's happening below the surface including changes to ocean ecosystems, and invest in capacity development in small island developing states on the front lines of climate change where critical ocean data could be greatly expanded."

More than 45 international ocean science, policy, and philanthropic organizations have signed the COP28 Dubai Ocean Declaration to date.

The Ocean Pavilion is a dedicated space in the Blue Zone at COP28 that returns for a second year to put the ocean center-stage at a crucial time in international climate negotiations. The pavilion brings together diverse and influential partners who will call for ocean-focused solutions to be recognized as critical in the world's response to the climate crisis. Throughout the two-week conference, the pavilion will feature more than 100 panels, videos, and in-depth discussions that elaborate on a set of conference themes, including Rising Seas, Climate & the Living Ocean, and Blue Economy & Finance. Visitors will also be able to learn more about the work of Ocean Pavilion partners and to speak with scientists, thought leaders, and students engaged in the search for solutions to some of the world's most pressing challenges.

More information about the Ocean Pavilion and COP28 UAE can be found on the <u>pavilion website</u> and by signing up to receive email updates from COP28.

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About Woods Hole Oceanographic Institution:

Woods Hole Oceanographic Institution (WHOI) is a private, non-profit organization on Cape Cod, Massachusetts, dedicated to marine research, engineering, and higher education. Established in 1930, its mission is to understand the ocean and its interactions with the Earth as a whole, and to communicate an understanding of the ocean's role in the changing global environment. WHOI's pioneering discoveries stem from an ideal combination of science and engineering—one that has made it one of the most trusted and technically advanced leaders in fundamental and applied ocean research and exploration anywhere. WHOI is known for its multidisciplinary approach, superior ship operations, and unparalleled deep-sea robotics capabilities. We play a leading role in ocean observation and operate the most extensive suite of ocean data-gathering platforms in the world. Top scientists, engineers, and students collaborate on more than 800 concurrent projects worldwide—both above and below the waves—pushing the boundaries of knowledge to inform people and policies for a healthier planet. Learn more at whoi.edu.

About UC San Diego's Scripps Institution of Oceanography:

Scripps Institution of Oceanography at the University of California San Diego is one of the world's most important centers for global earth science research and education. In its second century of discovery, Scripps scientists work to understand and protect the planet, and investigate our oceans, Earth, and atmosphere to find solutions to our greatest environmental challenges. Scripps offers unparalleled education and training for the next generation of scientific and environmental leaders through its undergraduate, master's and doctoral programs. The institution also operates a fleet of four oceanographic research vessels, and is home to Birch Aquarium at Scripps, the public exploration center that welcomes 500,000 visitors each year.