

June 2025: Nice, capital of the world ocean

Juin 2025 : Nice, capitale de l'océan

Jean-Pierre Gattuso^{1,2} and François Houllier³

¹ Sorbonne Université, CNRS, Laboratoire d'Océanographie de Villefranche, 181 chemin du Lazaret, F-06230 Villefranche-sur-Mer, France

² Institute for Sustainable Development and International Relations, Sciences Po, 27 rue Saint Guillaume, F-75007 Paris, France

³ IFREMER, 1625 route de Sainte-Anne, F-29280 Plouzané, France

ABSTRACT. We outline the critical importance of the ocean for planetary health, economic prosperity, and human well-being, while highlighting the urgent threats it faces from climate change, pollution, overfishing, and poor governance. It presents the One Ocean Science Congress (OOSC) and the 3rd United Nations Ocean Conference (UNOC3), scheduled for June 2025 in Nice, France, as pivotal events aimed at promoting ocean sustainability through science-based policy, innovation, and global cooperation. The OOSC will deliver scientific recommendations to Heads of States and Governments, while additional high-level events—the Ocean Rise and Coastal Resilience Summit and the Blue Economy and Finance Forum—will address climate adaptation and sustainable investment. The outcome of these efforts will be the Nice Ocean Action Plan, comprising a political declaration, voluntary commitments, and strategic priorities focused on multilateral processes, financial mobilization, and enhanced scientific knowledge to advance the Sustainable Development Goal 14 and ensure a resilient, thriving ocean for future generations.

RÉSUMÉ. Nous soulignons l'importance cruciale de l'océan pour la santé de la planète, la prospérité économique et le bien-être humain, tout en mettant en lumière les menaces urgentes auxquelles il est confronté : changement climatique, pollution, surpêche et gouvernance insuffisante. Il présente le *One Ocean Science Congress* (OOSC) et la 3e Conférence des Nations Unies sur l'Océan (UNOC3), qui se tiendront en juin 2025 à Nice, comme des événements clés pour promouvoir la durabilité de l'océan à travers des politiques fondées sur la science, l'innovation et la coopération internationale. Le congrès OOS formulera des recommandations scientifiques à l'attention des chefs d'États et de gouvernements, tandis que deux autres forums de haut niveau — le Sommet sur l'élévation du niveau de la mer et la résilience côtière, et le Forum sur l'économie bleue et la finance — aborderont respectivement l'adaptation aux zones littorales et l'investissement durable. L'ensemble de ces efforts aboutira au Plan d'action de Nice pour l'océan, structuré autour d'une déclaration politique, d'engagements volontaires et de priorités stratégiques centrées sur le renforcement des processus multilatéraux, la mobilisation des financements et l'accroissement des connaissances scientifiques afin de faire progresser l'Objectif de Développement Durable 14 et garantir un océan résilient et prospère pour les générations futures.

KEYWORDS. Ocean, sustainability, climate change, blue economy, Governance, United Nations, Science, Policy.

MOTS-CLÉS. Océan, Durabilité, Changement climatique, Économie bleue, Gouvernance marine, Nations Unies, Science, Politique.

Introduction

The ocean is crucial for our survival and underpins sustainable development. It covers more than 70% of the Earth's surface and is home to diverse ecosystems, from lagoons and coral reefs to deep-sea habitats, providing food security for over three billion people and supporting industries like fisheries, aquaculture, tourism, and maritime transportation. The ocean also enriches our cultural heritage and offers opportunities for recreation and scientific discovery. It absorbs 25% of anthropogenic CO₂ emissions and stores 90% of the excess heat due to human activities and faces increasing threats from overfishing, pollution, habitat destruction, and climate change, particularly through ocean acidification and warming

Annually, the ocean's ecosystem services – benefits to people – contribute approximately \$2.5 trillion to the global economy. Coastal ecosystems such as seagrass and mangroves sequester carbon, and shield coastlines from strengthening and increasingly frequent storm surges, reducing disaster's

risks. The ocean's potential for renewable energy through offshore wind, tidal, and wave power aids in decarbonization efforts. Its rich biodiversity fosters advancements in marine biotechnology, enhancing medicine, food security, and the development of sustainable materials. The ocean plays a vital role in promoting mental health, recreation, and spiritual well-being.

However, the ocean is facing significant threats from human activities. Climate-warmed waters cause coral bleaching and alter marine ecosystems and currents. Ocean acidification and deoxygenation pose risks to coral reefs and shellfish, destabilizing food webs. Overfishing, pollution (e.g. plastic, excess nutrients, and chemicals), oxygen loss, and habitat destruction (e.g. coastal development, deep-sea mining) are pushing marine ecosystems toward collapse. Weak governance and unequal resource access hinder effective conservation and sustainable management. This changing ocean creates knowledge gaps which expand faster than science can address them.

Despite these challenges, the ocean holds immense potential for solutions to global crises. The scientific community enhances the understanding of our ocean's resources and ecosystems and the intrinsic value to preserve and use them sustainably. Embracing the blue economy to support the application of these solutions improves livelihoods, economic growth, and ocean health. Prioritizing ocean-based solutions increases resilience, reduces greenhouse gas emissions, unlocks economic opportunities, and safeguards vital ecosystems for future generations.

Sustainable Development Goal 14 and United Nations Ocean Conferences

The Sustainable Development Goals¹ (SDGs) are a set of 17 global goals adopted by the United Nations in 2015 as part of the 2030 Agenda for Sustainable Development. They provide a roadmap for addressing the world's most pressing challenges, including poverty, inequality, climate change, environmental degradation, peace, and justice. The SDGs emphasize a balanced approach to economic growth, social inclusion, and environmental protection, aiming to create a more sustainable and equitable future for all.

Sustainable Development Goal 14² (SDG 14: Life Below Water) aims to conserve and sustainably use the oceans, seas, and marine resources for sustainable development. Key targets under SDG 14 include reducing marine pollution, protecting marine and coastal ecosystems, ending illegal, unreported, and unregulated (IUU) fishing, and enhancing scientific knowledge and technology transfer for ocean sustainability. Global cooperation is essential, as the ocean is globally connected, and the health of marine ecosystems directly affects livelihoods, especially in small island developing states (SIDS) and coastal communities that rely on marine resources.

Achieving SDG 14 requires integrated policies, effective marine governance, and sustainable blue economy strategies that balance conservation with economic development. Efforts such as Marine Protected Areas (MPAs), ocean-based climate solutions, and strengthened international agreements are crucial to ensuring a resilient and thriving ocean for future generations.

United Nations Ocean Conferences (UNOCs) are high-level global gatherings focused on accelerating action for SDG 14. The Third Conference will be co-hosted by France and Costa Rica and held in Nice, France, from 9 – 13 June 2025. It will build on the previous UN Ocean Conferences, hosted by Sweden and Fiji in 2017 in New York and by Portugal and Kenya in 2022 in Lisbon. UNOC3 will be preceded by three United Nations Special events: the One Ocean Science Congress, the Ocean Rise and Coastal Resilience Coalition Summit and the Blue Economy and Finance Forum. Numerous other activities will take place between 28 May and 16 June, making the city of Nice the capital of the ocean (Figure 1).

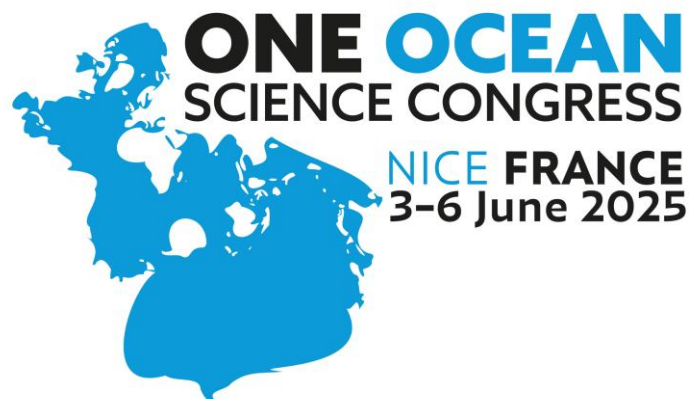
¹ <https://sdgs.un.org/goals>

² <https://sdgs.un.org/goals/goal14>



Figure 1. Chronological view of the events that will be held in Nice (France) and Monaco in June 2025.

One Ocean Science Congress



The One Ocean Science Congress (OOSC) is a high-level international gathering of leading ocean scientists, policymakers, and stakeholders dedicated to advancing ocean knowledge and its role in addressing global challenges. As the scientific prelude to the 3rd United Nations Ocean Conference (UNOC), the OOSC will provide a crucial platform for showcasing the latest scientific advancements, interdisciplinary research, and innovative solutions for ocean sustainability.

Scheduled for 2025, the congress will focus on key themes such as climate change, biodiversity loss, ocean acidification, deoxygenation, marine pollution, and sustainable ocean governance. It will emphasize the role of science in shaping evidence-based policies, fostering international collaboration, and supporting ocean-based solutions for climate mitigation and adaptation.

The OOSC aims to bridge the gap between scientific research and decision-making, ensuring that robust, policy-relevant knowledge informs global ocean governance. By convening world-renowned experts, early-career scientists, and representatives from governments, intergovernmental organizations, and civil society, the congress will facilitate discussions on the United Nations Decade of Ocean Science for Sustainable Development (2021–2030) and its contributions to the Sustainable Development Goals (SDGs).

Ultimately, the One Ocean Science Congress will serve as a catalyst for strengthening the science-policy interface, fostering international cooperation, and driving impactful ocean action.

The International Scientific Committee of the One Ocean Science Congress (OOSC) proposes recommendations for the Heads of State and Government at the Third United Nations Ocean Conference (Box 1). These recommendations are based on published scientific literature, major UN reports, and initial outcomes of the United Nations Decade of Ocean Sciences for Sustainable Development (2021-2030).

Grounded in scientific evidence, the International Scientific Committee of the One Ocean Science Congress advances a set of 10 thematic recommendations to shape discussions at the 2025 United Nations Ocean Conference. These recommendations are summarized below; the extensive version is available³, with specific actions detailed in the following sections:

1. Inspire responsibility and respect for the ocean, integrating across knowledge systems.
2. Enable effective, equitable and environmentally safe ocean-based approaches to achieve the mitigation and adaptation goals of the Paris Agreement.
3. Effectively protect and restore marine and coastal ecosystems through equitable and sustainable management.
4. Pause harmful activities in the deep ocean while improving knowledge to enable sustainable and equitable uses.
5. Ensure equitable sharing of benefits derived from marine genetic resources.
6. End illegal, unreported and unregulated fishing and improve transparency.
7. Ensure sustainable, equitable, and safe ocean-based food systems.
8. Adopt comprehensive measures to end marine plastic pollution.
9. Decarbonize shipping and reduce the environmental impact of maritime transport.
10. Ensure ambitious investments in inclusive fundamental transdisciplinary knowledge generation to inform ocean action.

Five cross-cutting recommendations are outlined to underpin these efforts:

- Reinforce support to multilateral organizations to support fairness, inclusiveness, ecological safety, and precautionary principles.
- Implement the already existing regulations and international commitments to protect the ocean and its vital services to society.
- Eliminate subsidies that harm climate and biodiversity.
- Strengthen oceanographic research, particularly by enhancing observation and modeling capacity and facilitating knowledge sharing.
- Sustain and build on the momentum that will be generated by the Third United Nations Ocean Conference to strengthen the link between science and policy.

These recommendations serve as a framework for action, to ensure that science remains at the heart of efforts to secure a sustainable future for the ocean and humanity.

Box 1

³ Gattuso J.-P., Houllier, F., Adams J., Amon D., Bambridge T., Cheung W., Chiba, S., Cortes, J., Duarte C., Frölicher T. L., Gelcich S., Gephart J., Gjerde, K., Haugan P., Li D., Takoko M., Tuda A., 2025. Recommendations to Heads of State and Government from the International Scientific Committee of the One Ocean Science Congress, Nice, 3-6 June 2025.

<https://doi.org/10.5281/zenodo.14361191>.

Ocean Rise and Coastal Resilience Summit

The Ocean Rise and Coastal Resilience Summit⁴ is a pivotal international forum addressing the urgent challenges posed by sea level rise, coastal erosion, extreme weather events, and climate-driven ocean changes. Bringing together leading scientists, policymakers, urban planners, engineers, and community leaders, the summit fosters interdisciplinary collaboration to develop innovative, science-based solutions for enhancing coastal resilience.

As global temperatures rise, accelerating ice melt and thermal expansion are driving unprecedented sea level rise, threatening coastal populations, infrastructure, and ecosystems. The summit will highlight the latest research on ocean dynamics, climate modeling, nature-based solutions, and adaptive governance, providing a platform to translate scientific insights into actionable strategies.

Key themes include climate adaptation, resilient urban planning, managed retreat, blue carbon ecosystems, and financing mechanisms for coastal resilience. Special attention will be given to vulnerable communities, particularly Small Island Developing States (SIDS) and low-lying coastal cities, where the impacts of ocean rise are most acute.

The Ocean Rise and Coastal Resilience Summit aims to catalyze global action by fostering policy dialogues, sharing best practices, and strengthening international cooperation. By bridging science, policy, and local action, it will contribute to the development of sustainable, climate-resilient coastal systems worldwide.

Blue Economy and Finance Forum

The Blue Economy and Finance Forum⁵ is a high-level platform dedicated to advancing sustainable ocean-based economies through innovative financial mechanisms, investment strategies, and policy frameworks. It brings together leaders from finance, government, industry, science, and civil society to explore how responsible investment can drive the transition to a regenerative and climate-resilient blue economy.

The ocean contributes trillions of dollars annually to the global economy, supporting industries such as fisheries, aquaculture, shipping, tourism, offshore renewable energy, and marine biotechnology. However, overexploitation, pollution, and climate change threaten the long-term sustainability of these sectors. The forum focuses on scaling up blue finance, including blue bonds, sustainable ocean funds, impact investment, and public-private partnerships, to ensure economic growth aligns with marine conservation and climate adaptation goals.

Key discussions will address de-risking ocean investments, financial innovations for marine protected areas, regulatory frameworks, and the role of financial institutions in driving sustainable ocean business models. Special emphasis will be placed on mobilizing capital for SIDS and coastal communities, ensuring inclusive and equitable economic benefits.

By fostering collaboration between financial actors and ocean stakeholders, the Blue Economy and Finance Forum aims to unlock sustainable investments that support a thriving ocean and resilient coastal economies.

⁴ <https://sdgs.un.org/events/unoc-2025-special-event-ocean-rise-and-coastal-resilience-coalition-summit-56788>

⁵ <https://beff2025monaco.org/>

The 3rd United Nations Ocean Conference⁶ (UNOC3) is a global platform dedicated to advancing ocean sustainability and strengthening international cooperation to achieve SDG 14: Life Below Water. Co-hosted by UN member states, this high-level event brings together heads of state, policymakers, scientists, businesses, NGOs, and civil society to address the most pressing challenges facing the ocean, including climate change, pollution, overfishing, habitat destruction, and declining marine biodiversity.

UNOC3 will build on the outcomes of previous editions, aiming to accelerate transformative actions for a sustainable blue economy, marine conservation, climate resilience, and equitable ocean governance. Discussions will focus on science-based solutions, innovative technologies, policy reforms, and financial mechanisms to protect marine ecosystems while supporting livelihoods and economic growth.

Key themes include scaling up ocean-based climate mitigation and adaptation, strengthening marine protected areas, combating illegal fishing, reducing plastic and chemical pollution, and ensuring sustainable ocean financing. The conference will also highlight the importance of indigenous knowledge, local communities, and youth engagement in ocean stewardship.

By fostering global commitments and partnerships, the UN Ocean Conference aims to drive impactful policy changes and investments that ensure a healthy, resilient, and productive ocean for future generations.

Conclusion

The Nice Ocean Action Plan is the anticipated outcome of UNOC3. It aims to serve as a pivotal framework for global efforts in ocean conservation, fostering collaboration and concrete actions to ensure the health and sustainability of marine ecosystems for future generations.

The key components of the Nice Ocean Action Plan are:

- The Political Declaration: A concise, action-oriented declaration reflecting the collective commitment of UN Member States to enhance ocean conservation efforts.
- Voluntary Commitments: A compilation of pledges from governments, international organizations, civil society, the private sector, and other stakeholders, detailing specific actions and resources dedicated to achieving SDG 14.

The key strategic priorities are:

- Multilateral ocean processes: Advancing international agreements and initiatives related to ocean protection to bolster global conservation efforts.
- Mobilizing Financial Resources: Securing investments to support SDG 14 and fostering the development of a sustainable blue economy.
- Enhancing Marine Scientific Knowledge: Strengthening Ocean Science, and the dissemination of marine scientific data and knowledge to inform and improve policy-making.

⁶ <https://unocnice2025.org/en/>