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2021 United Nations Decade
2030 of Ocean Science
for Sustainable Development

Ocean Decade Vision 2030 Outcomes Report Executive Summary



CONTEXT FOR THE VISION 2030 OUTCOMES REPORT

Since its debut in January 2021, the UN Decade of Ocean Science for Sustainable Development 2021-2030 (the Ocean Decade), which is being coordinated by UNESCO's Intergovernmental Oceanographic Commission (IOC/UNESCO) on behalf of the United Nations system, has catalysed the emergence of over 50 global ocean science programmes in which transdisciplinary teams of international partners from across society are working to contribute to fulfilment of the Ocean Decade Challenges. Contributing to these programmes are close to 350 national and regional projects, and close to 100 formal contributions of in-kind or financial resources.

The rapid growth of the Ocean Decade has been achieved through a predominantly bottom-up process that has generated strong global momentum and visibility for the role of ocean knowledge for sustainable development. However, if such growth continues without a clearer pathway to achieve collective impact, there is a strong risk that the efforts underway will be dispersed and disconnected. Moreover, without clear processes to ensure that the identification of future priorities is driven by 'users' of science and knowledge, there is a risk that the science and knowledge that is generated fails to be used where it is most needed.

VISION 2030 PROCESS

The Ocean Decade Implementation Plan envisages a series of milestone events in which the Ocean Decade community will come together to take stock of progress and discuss future priorities of which the 2024 Ocean Decade Conference is the first. The Vision 2030 process is the operational framework that has been designed and implemented over the last twelve months to feed this process of reflection and priority setting. It has been coordinated by the Decade Coordination Unit within IOC/UNESCO and implemented through a network of ten expert Working Groups that have developed a series of ten draft White Papers, one for each Ocean Decade Challenge. The Vision 2030 Outcomes Report, which has been authored by the Decade Coordination Unit, provides a synthesis of the main outcomes of the White Papers, and explores in more detail priority common themes emerging across the White Papers.

The current zero draft version of the Outcomes Report will be discussed at the 2024 Ocean Decade Conference alongside the draft White Papers, and feedback received will be used to refine the full set of documents. Following their finalisation, an implementation strategy will set out the means of operationalising the key recommendations, including the translation of the global ambition to regional and national priorities.



DRAFT RECOMMENDATIONS FROM THE VISION 2030 OUTCOMES REPORT

The Outcomes Report identifies the following **priorities for ocean knowledge and science generation and uptake** that could be fulfilled via the global action framework of the Ocean Decade to support sustainable development:

- ▶ Knowledge of the global distribution, fate, toxicity, and human health and ecosystem impacts of **marine pollution, including priority emerging pollutants**, across the land-ocean continuum, and from the surface to the deep sea.
- ▶ Develop the knowledge and tools to enhance **marine and coastal ecosystem-based management approaches**, including biodiversity and ecosystem conservation and restoration and promoting knowledge and tools to facilitate upscaling of successful initiatives.
- ▶ Develop a better understanding of **deep-sea ecosystems** including how habitat and species are connected, and enhanced predictive capacity of abundance and distribution, ecosystem services modelling, and vulnerability assessment vis a vis climate change and human impacts, including new or potential emerging economic sectors including fisheries, seabed mining, and marine carbon dioxide removal.
- ▶ Knowledge to encourage **sustainable, resilient, and equitable small-scale fisheries and aquaculture**, and in particular support an enabling environment for equitable access to and distribution of aquatic food, centred around an integrated food systems approach.
- ▶ Knowledge and innovation to strengthen **sustainable aquatic food production and innovation** for new frontiers with a focus on developing countries and strengthened public-private partnerships.
- ▶ Tools, skills, and knowledge for **evidence-based Sustainable Ocean Plans** at the national level and in relevant transboundary areas including the adoption of ocean accounting as a means of supporting decision making.
- ▶ Co-created solutions and knowledge with industry, both within and external to, marine and coastal sectors, to contribute to **sustainable and climate resilient ocean economy projects**, prioritising those that integrate environmental conservation with socio-economic benefits for local communities, and including for the establishment of dedicated financial mechanisms.
- ▶ Knowledge to rapidly scale up **climate mitigation** including through marine renewable energy and management of coastal ecosystems.
- ▶ Knowledge leading to timely understanding of the technical, ecological, and social feasibility, potential impacts of **proposed marine carbon dioxide removal** initiatives and to understand the scale-up potential, and inform any eventual monitoring, verification, and regulation frameworks.
- ▶ Knowledge to underpin adaptive governance and management systems and decision support tools for the **assessment of vulnerability and risk to coastal communities and marine industries**, and for developing climate change adaptation pathways including local adaptation strategies that align with ecosystem-based management approaches and incorporate or are based on nature-based solutions for coastal resilience.



- ▶ Knowledge to underpin **economic models for ocean investment** to diversify and accelerate investment in ocean science including for sustained and sustainable ocean observing and infrastructure from new actors, including resourcing for Small Island Developing States (SIDS), Least Developed Countries (LDCs).
- ▶ **Capacity development, sharing, and coordination**, including the development of funding models, skill sets, employment opportunities, access to data, and inclusion in global decision-making entities for scientists and policymakers from SIDS and LDCs and from other under-represented groups and regions, and a greater opportunity for inter-cultural and inter-regional exchange for ocean scientists and policymakers from all regions.
- ▶ Transdisciplinary **social science research on human-ocean connection**, behaviour change, and cultural engagement to inform the creation of a human values / human impact data set to be integrated into Ocean Decade digital infrastructure.
- ▶ Transdisciplinary knowledge on the **connections between ocean health and human health** including proactive engagement of health sector stakeholders in the Ocean Decade via tailored communications, outreach, and messaging and enhanced and expanded efforts in ocean literacy including with diverse societal actors.

The Outcomes Report includes recommendations for **priority infrastructure needs** for ocean knowledge generation and uptake including for marine pollution monitoring, ocean observations, interoperable ocean data infrastructure including a digital atlas of the ocean, and for the enhanced use of adapted, innovative technology to underpin the inclusive generation, access and use of observations, data, and knowledge across all Ocean Decade Challenges and by all countries. The development of a range of **best practices and standards** including for an expanded set of Essential Ocean Variables, marine pollution research, and data interoperability are also recommended.

The Outcomes Report makes a series of recommendations in relation to **priority cross-cutting issues that require reinforcement and increased investment** by diverse partners in the framework of the Ocean Decade to ensure that the Decade is on track for success by 2030 including measures to:

I.

Enhance the **role of national, regional and international policy frameworks as drivers of priority science and knowledge generation through the Ocean Decade** to ensure relevance and uptake. This will be achieved through processes to systematically inventory and identify the needs of policy and decision makers at different levels, increase ocean literacy of policy makers and national actors, and through increased investment in co-design that includes policy and decision makers as key actors in the delivery of relevant Decade Actions.

II.

Enhance the **recognition of all knowledge systems in the Ocean Decade, including Indigenous and local knowledge**. This will be achieved through additional expertise and advice within Decade coordination structures to support Decade Actions and partners and provide access to resources to enhance engagement.

III.

Creating **greater impact through increased action at the national level, including in under-represented SIDS and LDCs**, through targeted support to the development of ocean science and knowledge to underpin Sustainable Ocean Plans and augment the consideration of ocean issues in diverse national level plans and strategies, including National Adaptation Plans, Nationally Determined Contributions, and National Biodiversity Strategies and Action Plans.



IV.

Meaningful engagement of industry and the innovation sector to deliver the Decade vision, and strengthened mechanisms to build on existing partnerships and increase the level of engagement of industry and the innovation sector in the co-design and co-delivery of Decade Actions.

V.

Targeted, expanded, and sustained financing and resourcing for Decade Actions and coordination through reinforcement of emerging initiatives with philanthropic funding agencies, and a structured and targeted approach to national funding agencies and multilateral development banks / international financing instruments both by Decade coordination structures, and through increased support to Decade Actions for resource mobilisation.

VI.

Continued attention to enhancing diversity, inclusivity and equity in the Ocean Decade through efforts to continue to systematically remove barriers to generational and gender diversity, including through the development of an Ocean Decade Gender Roadmap, and increased investments and partnerships to increase the meaningful engagement of diverse societal actors in SIDS and LDCs.

VII.

Optimising Ocean Decade coordination for collective impact and ownership through proactive development of partnerships to fill gaps in decentralised coordination structures, increased targeted technical support to national and regional Decade structures and optimisation of Communities of Practice as tools for catalysing collective impact.

LOOKING FORWARD

The next 18 months represent an unparalleled moment in the global ocean landscape. Building on the momentum generated through recent advances in global policy frameworks including the adoption of the Agreement under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ agreement), the Kunming – Montreal Global Biodiversity Framework, the formalisation of the Ocean Climate Dialogues in the UNFCCC, and ongoing negotiations for a legally binding plastics treaty, the global ocean community will convene in a series of landmark gatherings between now and June 2025. These gatherings can be used to set the cadence for the translation to action of the recommendations emerging from the Vision 2030 process, and to raise global awareness of the foundational role of ocean science and knowledge to underpin sustainable ocean management and sustainable development.

As envisaged in the Ocean Decade Implementation Plan, the 2024 Ocean Decade Conference will be followed by international Ocean Decade Conferences in 2027 and 2030 that will have an important function of assessing progress and building on the Vision 2030 outcomes and recommendations. These future Conferences will also be critical milestones in the construction of the post-2030 legacy of the Ocean Decade.