



Pacific
Community
Communauté
du Pacifique



SPREP
Secretariat of the Pacific Regional
Environment Programme



UNSW
Centre for
Sustainable
Development Reform

8. Increasing ocean-related scientific cooperation, knowledge, capacity building, marine technology and education to strengthen the science-policy interface for ocean health.

This theme addresses the development and sharing of ocean science capacity, including research infrastructure, data sharing platforms, and technology transfer. It encompasses both traditional and modern knowledge systems for understanding and managing ocean resources.

Additional considerations, as raised through the UN's stakeholder consultation on panel themes, include developing comprehensive ocean literacy programmes, creating opportunities for early-career ocean professionals, establishing global networks for knowledge sharing, and integrating traditional knowledge with modern scientific approaches.

Pacific Context

The Pacific region faces an extraordinary imbalance between ocean management responsibilities and scientific capacity, with Pacific Island Countries serving as custodians of 20% of global Exclusive Economic Zones (EEZs). These ocean spaces exceed land area by an average factor of 300 to 1, creating unprecedented challenges for monitoring and management¹.

Scientific and technological capacity remains severely limited across the region, with critical shortages in offshore research vessels, sampling equipment, laboratory facilities, and information technology infrastructure². This challenge is compounded by research agendas often being determined by external funders and researchers, potentially misaligning with local priorities and needs¹.

The region's vast geography presents significant data management challenges, particularly in disseminating ocean information to isolated communities. Modern oceanographic datasets, with their increasing spatial and temporal resolution, frequently exceed local internet bandwidth capabilities¹. The South-West Pacific deep sea remains one of the world's most under-sampled oceanic regions, creating significant knowledge gaps in deep-sea biodiversity understanding².

Traditional knowledge systems, while containing sophisticated understanding of ocean systems developed over generations, face integration challenges with modern scientific approaches. Pacific communities possess detailed knowledge of species migrations, reef

health indicators, and weather patterns, yet formal mechanisms for incorporating this knowledge into scientific research and policy frameworks remain underdeveloped³.

The science-policy interface faces particular challenges in data accessibility and communication. Decision-makers often lack access to timely scientific data in accessible formats, while researchers struggle to align their work with policy needs. This disconnect is further complicated by limited translation of scientific findings into local languages and culturally appropriate formats¹.

International cooperation, occurring at both global and regional levels, remains critical for resource allocation, coordination of efforts, and technology transfer. However, research capacity limitations and funding discontinuity affect the maintenance of long-term monitoring and research programs². The transformation of data to information and knowledge to policy involves multiple disciplines, requiring integrated approaches to science communication, social science, user-centred design, and policy development¹.

Regional Instruments

- [2050 Strategy for Blue Pacific Continent](#)
- [Strategic Framework for Pacific Statistics 2022–2030](#)
- [SPREP Strategic Plan 2017-2026](#)
- [SPC Strategic Plan 2022–2031](#)
- [Pacific Islands Regional Ocean Policy](#)
- [Framework for Pacific Oceanscape](#)
- [Ocean Decade Roadmap](#)

The Ocean Action panels at UNOC3 are collaborative, multi-stakeholder sessions designed to:

- Generate concrete commitments and actions to support SDG14 implementation
- Produce specific outcomes that will be captured in the "Nice Ocean Action Plan"
- Contribute to the Conference's overarching theme of "Accelerating action and mobilizing all actors to conserve and sustainably use the ocean"
- Foster partnerships between governments, civil society, private sector, and other stakeholders

1. Powers M, Begg Z, Smith G and Miles E (2019) Lessons From the Pacific Ocean Portal: Building Pacific Island Capacity to Interpret, Apply, and Communicate Ocean Information. *Front. Mar. Sci.* 6:476. doi: 10.3389/fmars.2019.00476
2. Harden-Davies, Harriet R, 'Research for Regions: Strengthening Marine Technology Transfer for Pacific Island Countries and Biodiversity beyond National Jurisdiction' (2017) 32(4) *The international journal of marine and coastal law* 797
3. Mcleod, E., Bruton-Adams, M., Förster, J., Franco, C., Gaines, G., Gorong, B., James, R., Posing-Kulwaum, G., Tara, M. and Terk, E. (2019b). Lessons From the Pacific Islands – Adapting to Climate Change by Supporting Social and Ecological Resilience. *Frontiers in Marine Science*, 6(289). doi:https://doi.org/10.3389/fmars.2019.00289.