"Science to Services for a Resilient Pacific"

Fifth Meeting of the Pacific Meteorological Council (PMC-5) Working Papers

7-9 August 2019
Apia
Samoa

Agenda Item 15.4: Opportunities presented by the Pacific Community Centre for Ocean Science and UN Decade of Ocean Science for Sustainable Development

Purpose:

1. Provide an update on the Pacific Community Centre for Ocean Science (PCCOS) and the preparation of the United Nations (UN) Decade of Ocean Science for Sustainable Development, and opportunities for partnership and cooperation;

2. Propose that the Pacific National Meteorological and Hydrological Services (NMHSs) and partners engage with the PCCOS and the preparation of the UN Decade of ocean science to contribute toward and benefit from ocean science.

Background:

1. Pacific Island countries and territories (PICTs) are collective custodians of 20% of the world's Exclusive Economic Zones (EEZs), comprising 28 million km^2 of the Pacific Ocean. The scale of this geography, the global recognition of the strategic and economic importance of oceans, the importance of the Pacific Ocean to the global climate system, and global power shifts have placed the Pacific at the centre of global geopolitics. This gives the Pacific region an opportunity, unique in its history, to leverage its ocean geography in engaging with the world.

2. In 2017, Pacific Leaders endorsed the Blue Pacific as the core driver of collective action to advance the vision of peace, harmony, security, social inclusion and prosperity described in the Framework for Pacific Regionalism (2014). The Blue Pacific is key to the role of Pacific leaders in advocating for the health and protection of the world's oceans, and the conservation and sustainable use of marine resources.

3. Enhancement to the sustainable management of ocean resources and protection of marine ecosystems require significant collaborative commitment of shared resources and support at the regional level. This is crucial to enable science-based sustainable use, management and governance for PICTs to accrue lasting benefits from opportunities such as sustainable fisheries and aquaculture, deep sea mining, marine renewable energy, sustainable sea transportation, sustainable tourism, blue carbon, marine genetic resources, and assimilation of solid waste. Ocean science knowledge is paramount, particularly in a changing climate.

4. The United Nations have proclaimed a Decade of Ocean Science for Sustainable Development (2021–2030) 'to support efforts to reverse the cycle of decline in ocean health

and gather ocean stakeholders worldwide behind a common framework that will ensure ocean science can fully support countries in creating improved conditions for sustainable development of the Ocean'. As mandated by the UN General Assembly, the Intergovernmental Oceanographic Commission (IOC) of UNESCO coordinates the Decade's preparatory process, inviting the global ocean community to plan for the next ten years in ocean science and technology to deliver, together, the ocean we need for the future we want.

5. In celebrating the Pacific Community (SPC)'s 70th anniversary, the 10th Conference (2017) agreed to task the secretariat with establishing the Pacific Community Centre for Ocean Science (PCCOS), to be hosted at SPC. The first phase to establish PCCOS as a virtual centre that brings together all of SPC's internal ocean-related scientific and technical expertise has been completed. The second phase is now undertaken to have PCCOS become a flagship for scientific excellence and a dedicated shared regional information and knowledge hub that brings together expertise in ocean and fisheries science through partnerships with national and international scientific bodies. Ocean scientific and technical data, information and knowledge are made available through the Pacific Data Hub[1] and its associated PCCOS dashboard and Pacific Ocean Portal[2]. There are also opportunities for partnership with related regional resources such as the Pacific Climate Change Centre.

Update:

Integrated and Innovative Programming in Ocean Science

1. In June 2019, the 11th Pacific Community Conference endorsed the development of a regional strategy for the collection of scientific and technical ocean data and information that will translate the Blue Pacific narrative into regional, national, and local action for sustainable management. The Conference also endorsed SPC as the representative Council of Regional Organisations of the Pacific (CROP) agency responsible for collecting, managing, and interpreting the regional datasets that underpin this work.

2. In the medium term, PCCOS will further develop a regional hub for multi-disciplinary, multi-sectoral, integrated and innovative programming in ocean science in partnership with the Office of the Pacific Ocean Commissioner, the Marine Sector Working Group, the Pacific Climate Change Centre, CROP agencies and international and regional scientific institutes.

Shaping the Future of Pacific Ocean Science

3. From 23-25 July 2019, the first of eight regional consultations for the UN Decade of Ocean Science for Sustainable Development was held in Noumea, New Caledonia. The meeting was hosted by SPC in collaboration with the Intergovernmental Oceanographic Commission (IOC) through the PCCOS initiative. More than 70 representatives[3] gathered to plan and co-design how Pacific research priorities will be embedded into the upcoming ocean science decade. Working groups focused on the six societal outcomes convened, discussed and drafted reports which will be circulated for further input. Among the numerous recommendations coming from the workshop was a call for the establishment of national focal points to form a working group to help drive the work and priorities of the decade.

4. A Letter of Intent between SPC and IOC was signed on 25 July 2019 in Noumea to build upon the existing partnership and ensure the Pacific will continue to have a strong hand in shaping the upcoming Ocean Science Decade. Through the regional focal point of the PCCOS, SPC's

[1] https://pacificdata.org/
[2] http://oceanportal.spc.int
[3] from Pacific governments (including departments of meteorology, fisheries, foreign affairs, environment, disaster management, and maritime affairs), CROP agencies, academia, youth organisations, businesses, cultural specialists, media, regional and global ocean science experts.

working relationship with IOC includes: a) coordinating the preparatory process for the UN Decade of Ocean Science for Sustainable Development (2021–2030); b) providing technical expertise to the Executive Planning Group (EPG); and c) proposing to become an Associate Data Unit of the International Oceanographic Data and Information Exchange Programme.

Ocean Science to Services with the Pacific NMHSs

5. Under the Climate and Oceans Support Program in the Pacific (COSPPac) project funded by the Australia Department of Foreign Affairs and Trade (DFAT), SPC and a consortium of partners have engaged with the NMHSs and ocean stakeholders throughout the region to ensure ocean science is understood and used for informed decision-making. In Vanuatu in May 2019, in partnership with COSPPac, PCCOS facilitated dialogue between Vanuatu Meteorology and Geohazards Department (VMGD) and the Ocean and Maritime Office in Foreign Affairs, identifying means to better track progress against the Vanuatu National Ocean Policy. Regional contributions to this dialogue came from USP, OPOC, SPREP, Van-KIRAP, and representatives from SPC's Melanesian office, Geoscience, Energy and Maritime (GEM) Division, and Fisheries, Aquaculture, and Marine Ecosystems (FAME) Division.

6. There is a need to better understand the extent, nature and severity of Climate Change – Ocean nexus through scientific and technical studies, data and interpretation. In particular, long-term strategic responses require better understanding of the localised effects of climate change, including through:
    i. Ocean observation[4] and monitoring;
    ii. Science-based hazard and risk assessment and modelling;
    iii. Marine and ocean forecasting services;
    iv. Multi-hazard early warning systems;
    v. Coastal monitoring and vulnerability mapping.

7. As the key national agencies responsible for climate and ocean monitoring, modelling, forecasting, and dissemination of early warning, the Pacific NMHSs have played a critical role in translating ocean science into services and providing ocean and maritime stakeholders and policy makers with science-based knowledge products for informed decision-making. The NMHSs are also the central stakeholder for capacity building and technology transfer with regards to science-based hazard and risk assessment and modelling and early warning systems. They are therefore uniquely positioned to significantly contribute toward and benefit from the preparation and delivery of the UN Decade and the PCCOS integrated programming in ocean science.

[4] The Pacific Islands Global Ocean Observing System (PI-GOOS) is a recognised GOOS Regional Alliance (GRA) that aims to raise the awareness of, and support for, ocean observing systems in the Pacific Islands region, as well as to identify and address gaps in the Pacific Ocean observing network. It was established with the support of the IOC PPO in 1998, and is coordinated by an Oceanography Officer based at SPREP.

Recommendations:

The Meeting is invited to:

- **Note** the establishment, purpose and developing services of the Pacific Community Centre for Ocean Science (PCCOS);

- **Recognise** the opportunities for development and collaboration presented by PCCOS and the upcoming UN Decade of Ocean Science for Sustainable Development, particularly with regard to increasing access to resources, capacity development and transfer of marine technology;

- **Task** the PIMOS Panel to identify science and service opportunities through PCCOS and the UN Decade of Ocean Science that align with the Pacific Islands Meteorological Strategy (PIMS 2017-2026).

Attachment

- 11th Conference of the Pacific Community, Paper no. 1, Agenda Item No. 2: *Ocean science- A sustainable future for the Blue Pacific*

Links

- UN Ocean Decade Website: https://en.unesco.org/ocean-decade
- Pacific Data Hub: https://pacificdata.org/
- Pacific Community Workshop on the UN Decade of Ocean Science for Sustainable Development: https://www.spc.int/updates/blog/2019/07/the-science-we-need-for-the-ocean-we-want

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