Sixth Meeting of the Pacific Meteorological Council (PMC-6)

Sustaining Weather, Climate, Water and Ocean Services for a Resilient Blue Pacific

14-16 August 2023, Sofitel Fiji Resort and Spa, Denarau, Nadi, Fiji

Agenda item 7: National Meteorological Services role and involvement with the IPCC and UNFCCC processes

Purpose of the paper:

1. To discuss role and involvement of Pacific NMSs with IPCC and broader UNFCCC processes, and needs/opportunities for enhancement, within context of the Pacific Islands Meteorology Strategy, and
2. More specifically, how best to leverage and align Pacific regional climate (science and services) research and associated capacity development as part of such processes, with emphasis on the key strategic guidance of the Pacific Climate Change Science and Services Research Roadmap and the technical and operational role of the Pacific Climate Change Centre.

Background:

1. The scientific understanding of current and future climate change, including access to observational data and implementation/application of modelling, analytics and assessments, is critical to informing the IPCC assessment reporting cycle. These assessment reports in turn provide the science-based evidence informing:
   a. broader UNFCCC processes and associated international negotiations, including as relates to 'loss and damage', and
   b. strategic policy development, mitigation and adaptation planning, climate-related disaster risk reduction and associated decision-making at global through to regional and national/sub-national level.
2. In this context, Pacific NMSs have a key role to play in development and delivery of climate change science, including the:
   a. collection, management and reporting of quality assured, station-based (and other) observational data.
   b. the implementation, analysis and reporting of climate modelling, analytics, and assessments, and
   c. the development and delivery of science-based services relevant across multiple (historical, current and future) timescales.
3. Pacific NMS technical skills and capability are underpinned by accredited science and technical education of key personnel, including increasingly at graduate and post-graduate level, supplemented by various science and technically based 'Continuing Professional Development' (CPD) activities across the global, regional and national network of education and training services providers.

4. Pacific NMSs have been actively involved as key collaborative partners and stakeholders over the last decade in various donor-funded Pacific climate science projects and programs, including on collaborative basis with multiple development and delivery partners at both regional and national scale. This includes the original Australian Government-funded Pacific Climate Change Science Program (PCCSP), the subsequent Pacific Australia Climate Change Science and Adaptation Planning Program (PACCSAPP), the Climate and Oceans Support Program in the Pacific (COSPPac), and the recently completed 'Next Generation Climate Projections for the western tropical Pacific' project. These projects and programs have been broadly aligned with the sequence of IPCC assessment cycles, including the release of related CMIP3/5/6 archives of global climate models, although this alignment unfortunately has not been seamless.
5. Features of these projects include structured but otherwise informal 'mentoring and attachments' to build technical capacity (PCCSP/PACCSAPP) in NMSs and dedicated 'write-shops' involving climate scientists from Pacific and Australian NMSs and universities to draft co-authored, peer-reviewed journal papers (Pacific NextGen); the latter specifically designed to facilitate and further enhance Pacific engagement of the IPCC process. However, Pacific climate change science journal papers authored/co-authored by Pacific Islanders remain under-represented in the peer-reviewed literature.
6. Likewise Pacific NMSs of more recent years have been active participants in annual COP events as part of the Pacific Moana Blue Pavilion, all designed to facilitate active engagement of the Pacific as part of the broader UNFCCC process. NMSs play a key role at COP in communicating the Pacific climate science and science-based services, including as part of various side events, expert discussion panels and associated dialogues etc. However, the demand for science-based climate intelligence to inform these engagements is escalating rapidly as the existential risks of climate change to the region become increasingly realized.
7. This includes the need for assistance to support NMSs i) as part of national level 'state-of-the-climate' reporting, and ii) to address sectoral stakeholder needs for more formal, structured climate impact/risk-based assessments to inform national adaptation planning, the emergence of the regional 'loss and damage' dialogue, and the demand for more rigorous science rationale for informing climate finance mobilization across both public and private sectors.
8. The key role of NMSs in the ongoing and still developing Pacific climate science knowledge value chain has been well recognized variously as part of the Pacific Islands Met Strategy, and more specifically the Pacific Islands Regional Climate Centre Network (PI-RCC-N), Pacific Roadmap for Strengthened Climate Services, the Pacific Climate Change Science and Services Research Roadmap, and the Strategic Business Plan and the framework for partnerships of the Pacific Climate Change Centre (PCCC).
9. The Pacific Climate Change Centre through its research function and science to services thematic area and in partnership with the Institute for Climate, Energy & Disaster Solutions of the Australian National University have conducted pacific webinar on IPCC Sixth Assessment Report 6 (AR6) Working Group 1: The Physical Science, Working Group 2: , Working Group 3 Climate Change and Mitigation & the Synthesis Report (SYR). In partnership with Climate Analytics the PCCC also hosted the "Intergovernmental Panel on Climate Change sixth assessment report Synthesis Report (SYR) Final Government Distribution (FGD) pacific webinar for the AR6 reports. The main objectives of the webinars were to close the knowledge gap in the Pacific region around the work of the IPCC and to provide the most up-to-date synthesis of relevant climate change information to diverse Pacific Island audiences. 15 factsheets designed to convey and communicate the key

findings of the latest Intergovernmental Panel on Climate Change (IPCC) have been developed. From January – May 2023 the PCCC & ANU undertook a multi-staged engagement process to capture perspectives from a diverse range of stakeholders on options to enhance engagement with the IPCC and improve accessibility of IPCC data for Pacific audiences.

- The 1st stage involved a general stakeholder survey, which received 136 responses.
- The 2nd stage was a regional dialogue held in-person with PCCC in Fiji, with 34 representatives from a range of sectors across the region, including several IPCC Focal Points.
- Stakeholder interviews were then conducted to validate prior findings and expand on the details of recommended activities. A range of options were proposed for enhancing Pacific engagement with the IPCC in terms of both contributions to the IPCC process as well as improved accessibility of IPCC information. From this, the PCCC and ANU team recommend the following options:
- Support the establishment of a regional policy coordination mechanism to coordinate National IPCC Focal Points and regional priorities.
- Expand outreach to provide clear pathways for engaging with the IPCC through a supported coordination function.
- Support the development of an IPCC capacity-building program.

The objectives of the agenda:

1. Reaffirm key role and achievements of NMSs in the ongoing development and implementation of the PI-RCC-N, Pacific Climate Change Science and Services Research Roadmap and core functions of the PCCC, in particular as relates to enhanced engagement of IPCC assessments and associated UNFCCC processes.
2. Identify further science-based technical support and associated informal (CPD-style) capacity development for NMSs as part of this process, including support for science-based write-shops, annual COP engagement/expert panels, mentoring and attachments as well as related training activities as new science-based tools and services are developed and applied on a mainstream basis at regional, national, and sub-national/sectoral basis, and
3. Ensure NMSs are directly engaged within the design, management, implementation, and associated governance arrangements of any new Pacific climate science initiatives of this type, applying principles of co-design, co-production and co-delivery where appropriate.

Recommendations

The Meeting is invited to:

- **Recommend** NMSs to be actively involved where appropriate in the collaborative development and delivery of Pacific climate science and science-based services as part of the ongoing IPCC and annual COP/UNFCCC process in the Pacific.
- **Note** the key role of NMSs in the development and delivery of Pacific climate science relevant across multiple timescales, and development/implementation of science-based functions of the PI-RCC-N
- **Note** the key role of the Pacific Climate Change Science and Services Research Roadmap as proving strategic guidance and priorities, as facilitated by the Pacific Climate Change Centre and associated development/delivery partners.