



“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 5.0: Pacific Climate Change *Science to Services*

#### Purpose:

1. Provide an overview of developments and progress over last two years in relation to Australian Government funded Pacific climate change science and services with relevance to implementation of the Pacific Islands Meteorology Strategy 2017-2022, and
2. Provide an update on current activities, proposed next steps and associated strategic opportunities for partner PICs

#### Background:

1. The Australian Government-funded Pacific Climate Change Science Program (PCCSP) and subsequent Pacific Australia Climate Change Science and Adaptation Planning (PACCSAP) Program delivered benchmark physical scientific understanding of climate change in the western tropical Pacific, along with science-based communication and knowledge brokering products, decision support tools and capacity development for key stakeholders. A key feature of this work was the delivery of current generation (IPCC AR5/CMIP5) climate projections for each of 14 partner Pacific Island Countries (PICs), along with new scientific understanding of climate variability and extremes over multiple time scales.
2. These programs were delivered jointly by CSIRO and the Bureau of Meteorology in partnership with partner PIC national met services (NMSs) and regional organisations, including SPREP, SPC and USP, other Australian and regional service providers including Geoscience Australia, GIZ, Red Cross Climate Centre and other Australian universities. The PCCSP/PACCSAP Programs finished in 2015.
3. The Australian Government subsequently funded a further project delivered by CSIRO and SPREP in partnership with PIC NMSs and sectors, which commenced in July 2016 and finished in June 2018, entitled '*Science-based Climate Information Services in the Pacific: Communicating New Findings, Supporting Application and Developing In-country Capacity*'. In context of 'science to services', this project was designed to facilitate outreach of the PCCSP/PACCSAP science in the form of climate change services tailored for needs of partner



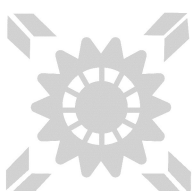
PIC sectors to inform climate change impact assessments, policy development, management planning and associated decision-making. Specific objectives included:

- Undertake targeted outreach to raise awareness and facilitate enhanced understanding of new climate change science-based knowledge and associated climate information services at sectoral level in partner PICs, and
- Through a regional approach, support capacity development within target users at national level to facilitate long-term sustainability of climate change science-based knowledge and resilience of partner PICs.

#### Update:

##### 1. Key Achievements from this project include:

- Development of non-technical guidance materials to facilitate development and application of science-based data and information to inform climate change impact assessments for sectors
- Development and implementation of ag sector case studies on climate change impacts on cocoa farming in Guadalcanal Plain, Solomon Islands, and Savai'i, Samoa, including workshops in Honiara and Apia during 2017/18 and documented outputs covering both workshop outputs and results and process for undertaking the case studies
- Updated PACCSAP website, involving transfer of ownership for the site from CSIRO to SPREP and upload of all relevant case study reports, and re-format as an archive site for ongoing future access to all relevant climate change data, information and reports ([www.pacificclimatechangescience.org](http://www.pacificclimatechangescience.org))
- Development of new Pacific climate change science data and information content for the ADB-funded Regional Climate Change Consortium for Asia-Pacific (RCCAP) portal, with specific content for both SE Asia and the Pacific; Pacific content including all outputs from the project (guidance materials, case studies etc) as well as relevant links to the PACCSAP archive website ([www.rccap.org](http://www.rccap.org)) .
- Establishment of the Climate Change Projections node of the WMO RA-V Pacific Islands Regional Climate Centre (PI-RCC) Network, leveraged off the PACCSAP projections science and more recent DFAT funded climate change services ([www.pacificmet.net/rcc/climate-projections](http://www.pacificmet.net/rcc/climate-projections)).
- Affiliation with Asia-Pacific Adaptation Platform (AP-Plat) partnership supported by Govt of Japan to facilitate links between physical science and services and adaptation science and services for building climate change capacity at sectoral level across Asia-Pacific.
- Development of the *Pacific Climate Change Science and Services Research Roadmap* to provide strategic guidance to key regional stakeholders, including the PMC and partner PIC NMSs, regional organisations, donors/development and technical expert delivery partners, for prioritisation and enhanced coordination of project development and implementation.
- The Roadmap is designed to sit under and otherwise align with the Pacific Islands Met Strategy, be overseen by the Pacific Islands Education, Training & Research (PIETR) Panel, and provide strategic guidance for the development and implementation of climate change research (science and services) functions of the new Pacific Climate Change Centre
- Convened preliminary planning workshop in Melbourne, Oct 2018, to facilitate enhanced Pacific NMS/sector engagement of IPCC AR6 process, including draft scoping of shortlisted topics for potential IPCC WG2 journal articles during 2019/2020



- Development of (Level 1-4) accredited climate change science training materials tailored to specific capacity development needs of partner PIC NMSs/sectors, with potential for implementation as part of the climate change training functions of the Pacific Climate Change Centre
- Updated the Pacific Climate Change Data portal with new quality-controlled station observational data for several countries and stations as well as the Tropical Cyclone Data portal with tropical cyclone best track data up to the end of 2016.

2. A new follow-up project entitled 'Next Generation Climate Projections for the Western Tropical Pacific' commenced in May 2019 funded by the Australian Government (Department of Foreign Affairs and Trade) through the Australia-Pacific Climate Partnership. As for the previous project, this project is being implemented by CSIRO and SPREP in partnership with partner PIC NMSs and sectors. The primary objectives are:

- To develop and implement a regional action plan for producing and applying updated (PACCSAP CMIP5) projections and decision-support tools for the Pacific with emphasis on addressing priority needs of sectoral end-users
- To facilitate outreach and capacity development with NMSs and sectors through undertaking new case studies and development of new communication and knowledge products, and
- Develop a strategic framework for 'NextGen' climate change science and services in the Pacific to align with IPCC AR6

One of the first major activities for this project was a two-day workshop held in Apia, Samoa, during the period 31 July-1 August 2019, as an adjunct meeting to PMC-5. The project is scheduled for completion in Dec 2020.

3. As part of the new project, a zero-order draft concept note is being prepared by CSIRO, SPREP and BOM to scope out the needs of partner PIC stakeholders for design of 'Next Generation Climate Change Science and Services for the Western Tropical Pacific'. This work is ongoing and Pacific stakeholder consultation will be coordinated through the project in the first instance by SPREP and in Australia by CSIRO and BOM. The target audience amongst potential regional and international donors for requisite funding is yet to be determined.

### Recommendations:

The Meeting is invited to:

- Note** the achievements and initiatives of the projects referred in this paper which are focussed on 'science to services' relevant to current and future climate change across multi-decadal timescales
- Recognise** the priority need for ongoing technical support and development of in-country knowledge, capacity and applications in partner PICs in this (climate change) 'science to services' research domain
- Recommend** that the new Pacific Climate Change Science and Services Research Roadmap provide key strategic guidance to development and delivery partners as an adjunct to and in support of the ongoing implementation of the Pacific Islands Meteorological Strategy
- Request** support from the PMC, NMSs and sectors in delivery of the new NextGen Projections project and in development of the proposed NextGen Climate Change Science and Services for the Pacific concept note.



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### Attachment

- Pacific Climate Change Science and Services Research Roadmap
- Developing Climate Change Information for the Pacific: Guidance Material to Raise Awareness and Facilitate Sectoral Decision-Making using Science-Based Climate Change information and Services (<http://www.rccap.org/pacific-guidance-and-case-studies/>)

### Links

- Pacific climate change science (PACCSAP) website [www.pacificclimatechangescience.org](http://www.pacificclimatechangescience.org)
- WMO RA-5 Pacific Islands Regional Climate Centre (Pi-RCC) Network [www.pacificmet.net/rcc](http://www.pacificmet.net/rcc)
- Regional Climate Consortium for Asia-Pacific (RCCAP) portal [www.rccap.org](http://www.rccap.org)

28 July 2019

