**Next Generation Climate Projections for the Pacific**

**Pre-PMC5 Regional Workshop, Apia**

*Sheraton Hotel, Harborview Room, 31 July – 1 August*

**Background**

The science of past, present and future climate for the Western tropical Pacific, including regionally specific climate change projections for 14 Pacific Island countries, has been provided by the DFAT-funded *Pacific-Australia Climate Change Science and Adaptation Planning* (PACCSAP) program, which was completed in June 2015.

The existing generation of PACCSAP climate projections for the Pacific are based on the Couple Model Inter-comparison Project (CIMP) 5 ensemble of global climate model outputs which informed the IPCC Fifth Assessment Report (AR5) published in 2013/14. These projections which are publicly available ([www.pacificclimatechangescience.org](http://www.pacificclimatechangescience.org)) currently remain the most scientifically comprehensive, and have been widely cited for a variety of operational purposes (National Adaptation Plans, policies and frameworks, local awareness raising, sector specific risk assessment, scientific research etc). The projections are also used for a range of strategic purposes, including to inform UNFCCC international negotiations, national communications and the annual COP process, and national/sub-national level adaptation and disaster risk management planning and policy development.

The next generation of CMIP 6 global climate model projections are presently under development to inform the IPCC Sixth Assessment Report (AR6) scheduled for release in 2021-22, in turn to inform the first UNFCCC Global Stocktake scheduled for 2023.

Developments since early 2015 have created the need for new analysis and guidance for effective projections. A very important case is the 2015 Paris Agreement, where information about the targets of 1.5 and 2 °C global warming since preindustrial is now of strong interest to stakeholders – including, what these targets mean for the Pacific, how warming at these targets compares to higher emission pathways, and the impact of the pathways of how the world could get there.

A new project entitled ‘Next Generation Climate Projections for the Pacific’ funded by the Australian Government through the Australia Pacific Climate Partnership (APCP), has recently commenced. It has a primary objective to further develop and enhance the functionality and utility of existing CMIP5 climate projections for the Pacific, with emphasis on facilitating sectoral applications at national/sub-national level to inform climate change impact assessments and associated decision-making.

This workshop is the first regional engagement for the project, and the objectives are:

**Objectives:**

* Launch *Next Generation Climate Projections for Pacific* project;
* Review current state of projection science for the Pacific including partner country case studies;
* Provide overview of and facilitate feedback for *NextGen* projections and related innovations and develop new sectoral case studies;
* Review and endorse Pacific Climate Change Science and Services Research Roadmap with inputs from partner countries and members of the PMC PIETR.

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| **Day 1** |  | | |
| **Time** | **Objectives** | **Speakers** | **Comments** |
| 8.30-9.00am | Registration |  |  |
| 9.00-9.45  ***Session 1: Chair Mr. David Hiba (PMC Chair)*** | Opening Prayer  Welcome Remarks  Remarks  Remarks | **Rev. Nuuausala Siaosi**  Director General SPREP, **Leota** **Kosi Latu**  Ministry of Natural Resource and Environment, Chief Executive Officer, **Ulu Bismarck Crawley**  Representative from Australian High Commission for Samoa, **Sarah Moriarty** |  |
| **9.45.00-10.15am** | **Group Photo & Morning Tea** | | |
| 10.15-12.30pm  ***Session 2: Chair***  ***Dr. Geoff Gooley, Project Manager Climate Science Centre*** | APCP Presentation Overview | Team Leader Support Unit,Kate Duggan (APCP) |  |
| Project and workshop overview | Project Manager, Geoff Gooley (CSIRO) |  |
| State of the climate change science | Kathy McInnes (CSIRO) | Update on latest IPCC and Pacific science including SROCC report |
| Current Projections and case studies for the Pacific | Michael Grose & Dewi Kirono (CSIRO) | Presentation on the projections, including re-run of SI and Samoa case studies featuring current projections, and development of the guidance materials and RCCAP portal |
| Solomon Islands Case study presentation  Agriculture (10mins) | Alick Haruhiru (Solomon Islands Met Services) | Overview of SI case study, outcomes and learnings |
| Breakout group discussions (#1) | All | General discussion around usefulness of current projections and gaps/needs, opportunities going forward |
| **12.30-1.30pm** | **Lunch** | | |
| 1.30-3.00pm  ***Session 3: Chair***  ***Mr. Arona Ngari, Director Cook Islands Met Services*** | Video – Cocoa case study Samoa | | |
| Samoa case study  Agriculture | Tile Tofaeono & Luteru Tauvale (Samoa Met Services) |  |
| Next Gen 1.5 projections and case studies for the Pacific | Michael Grose & Leanne Webb | Presentation on the details of NextGen1.5 projections, including re-run of SI and Samoa case studies featuring Next Gen 1.5 |
| Vanuatu case study  Infrastructure/ Tourism | Allan Rarai (Vanuatu) | New case study from the GCF project |
| Breakout group discussions (#2) | All | General discussion around usefulness of current projections and gaps/needs, opportunities going forward |
| **3.00-3.30pm** | **Afternoon Tea** | | |
| 3.30-4.30pm  ***Session 4: Chair Mr. Mulipola Titimaea*** | Pacific Authors IPCC & Pacific Engagement Updates | Kathleen McInnes (CSIRO) & Azarel Maiai (SPREP) | Provide updates on process and requirements of IPCC and Pacific contributions/literature. Overview and update on Pacific IPCC engagement |
|  | IMPACT Climate Analytics update | Patrick Pringle (Climate Analytics) | Overview and lessons learned from IMPACT workshop |
|  | Interactive Session: Climate change science, & the role of knowledge broker | Christopher Bartlett (APCP) |  |
| **5.00pm** | **End of Day** |  |  |
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| **Day 2** |  |  |  |
| 9.00-10.00am  ***Session 5: Chair Azarel*** | Recap on Day 1 | Ms. Azarel Maiai |  |
| **Break-out group discussions** | **Part 1:** Case study concepts (sectors & countries) | All | Breakout groups per sector (multi-countries) or per climate hazard (multi-sectors and countries) to discuss new case studies for Next Gen 1.5 |
| **10.00-10.30am** | **Morning tea** |  |  |
| ***Session 6: Chair Kathy*** | Break-out group discussions **Part 2:** Case study concepts (sectors & countries) | All | Breakout groups per sector (multi-countries) or per climate hazard (multi-sectors and countries) to discuss new case studies for Next Gen 1.5 |
|  | NextGen 2.0 (CMIP6) projections update | Geoff Gooley & Michael Grose (CSIRO) | Developments on CMIP6 for Australia and the Pacific  Feedback on priority for Pacific Roadmap |
| **12.30-1.30pm** | **Lunch** |  |  |
|  | Next steps | Geoff Gooley | Work Plan for Next Gen 1.5 projections and case studies |
| **3.00-3.30pm** | **Afternoon Tea** |  |  |
| **Session 7: PMC Pacific Islands Education, Training and Research Panel** | | | |
|  | PIETR Progress Update | PIETR Chair/SPREP |  |
| Pacific Climate Change Science & Services Research Roadmap overview & update | SPREP | Overview of the Roadmap and status/next steps |
| WMO Pacific Regional Training Centre (RTC) | UNDP, USP and FMS |  |
| Other matter |  |  |
| **5.00pm** | **End of workshop Function** | **All** | **Informal networking** |