



## SEVENTH MEETING OF THE PACIFIC METEOROLOGICAL COUNCIL (PMC-7)

*"AT THE FRONTLINE OF WEATHER, CLIMATE, WATER, AND OCEAN ACTION IN THE PACIFIC"*

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*"At the Frontline of Weather, Climate, Water, and Ocean Action in the Pacific"*

17-19 September 2024, Warwick Le Lagon-Vanuatu Resort, Port Vila, Vanuatu

### Agenda Item 10.1: PICS (Panel) Progress and Updates

#### Purpose:

1. To report on activities and achievements of the Pacific Islands Climate Services (PICS panel) since PMC-6.

#### Background:

1. The PICS panel aims to: 'Improve coordination, continuity and integration of projects, programs and initiatives that support climate services at national, regional and global levels; support the WMO RA V Pacific Regional Climate Centre Network (RCC-N) strengthen the basic and core functions and capabilities of NMHSs for robust and sustained data collection and management, analysis of data and quality assurance, production and dissemination of products, research and modelling; enhance avenues and modes of multi-way communication and feedback between climate services providers and users to enhance the uptake and use of relevant and tailored climate services down to the communities and individuals and provide strategic advise associated with the operational activities of the WMO RA V Pacific Regional Climate Centre'.
2. The current chair of the PICS panel is Simon McGree (Bureau of Meteorology) and vice chair Arieta Baleisolomone (Fiji Meteorological Service).

#### Progress/Update:

1. The PICS Panel is operational and meets at a minimum, four times a year. The Terms of Reference has not been amended since the last PMC, other than to update the membership list. Since PMC-6, Met Office United Kingdom and the University of the South Pacific have rejoined panel.
2. The PICS panel supports the operations of the Pacific Regional Climate Centre Network (RCC-N) as an intermediary between the RCC-N and NMHSs and RCC-N and regional stakeholders. Recent intermediary activities include the on-going



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review of the Pacific Islands Climate Outlook Forum (PICOFO). Feedback from the first stage of engagement includes

- the need for more discussion with NMHS stakeholders on how NMHS products and services can be applied/used in their space;
- a request to Pacific RCC-N members to assist with climate research such as increasing the understanding of the relationship between meteorological variables and climate impacts/product yields;
- the need to better coordinate activities between PICOFO Day 1 (NMS day) and PICOFO Day 2-3 (stakeholder days). These discussions need to be relevant to climate-sensitive sectors in terms of potential impacts from near and long-term future climate.
- the need to identify response strategies to potential impacts.

Overall feedback on PICOFO Day 1 (NMS day) was positive. This reflects RCC-N member efforts in modernising PICOFO and better engaging with the NMHSs. However, there is room for further change. This includes the need to review the PICOFO statement release date, determine who is using it and for what purpose. NMHSs have requested longer PICOFO Day 1 sessions. The timing of PICOFO in May and October needs to be reviewed as well as the number of PICOFOs held in a year. RCC-N members are requested to consider the possibility of merging PICOFO with the COSPPac OCOFO and NOAA PEAC teleconference

3. At a PICS panel meeting on 10 July 2024, NIWA provided a presentation on Machine Learning (ML) and Artificial Intelligence (AI). NIWA note that there has been a significant increase in the use of ML and AI in meteorology. Examples of ML/AI use include ML for post processing (bias correction, downscaling, impact-based forecasting) and Large Language Model and LRGE Multi modal model (ala ChatGPT) for automation of narratives (forecasts communication/delivery). Technological advances make it 'easy' to: Leverage NWP forecasts and other datasets (APIs, AWS buckets, OpenDAP) and train Machine Learning algorithms, without domain knowledge, develop appealing visuals, interfaces, marketing strategy and materials. A task team made up of BOM, APCC, NOAA, CSIRO, UKMO, led by NIWA will produce a paper on the advantages and disadvantages of ML and AI. The paper will be shared via the Pacific Regional Climate Centre website.



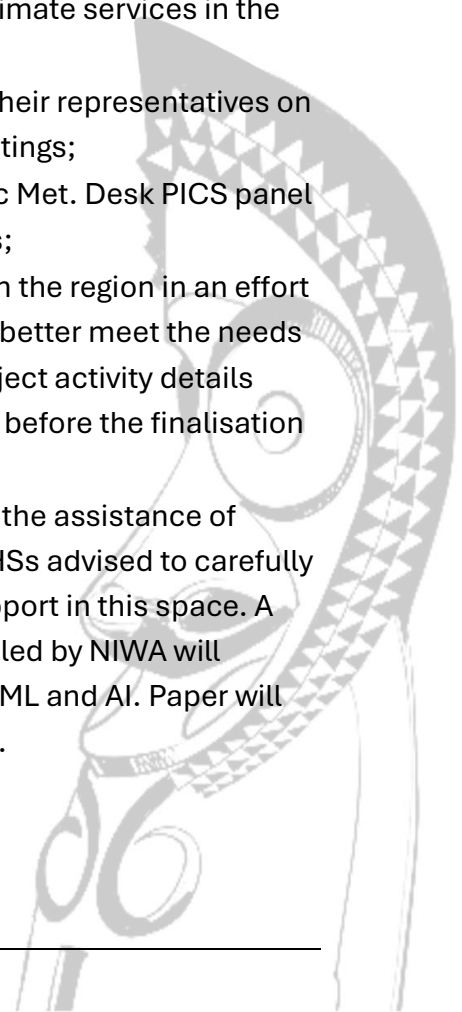
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### Recommendations:

The Meeting is invited to:

- **Acknowledge** the ongoing work of the PICS panel, in collaboration with other regional and international partners towards strengthening and sustaining climate services in the Pacific region;
- **Note** PICS panel and Pacific Regional Climate Centre Network operations are consistent with Pacific Roadmap for Strengthened Climate Services guidelines. The Roadmap is aligned with the Pacific Islands Meteorological Strategy.
- **Request** the PMC support and guide the activities initiated by the PICS Panel, in collaboration with other regional and international partners and projects thus ensuring the sustained and continuous development of climate services in the Pacific Islands region;
- **Request** the PMC and observers support and encourage their representatives on the panel to regularly participate in future PICS panel meetings;
- **Request** the PMC seek funding to support on-going Pacific Met. Desk PICS panel secretariat functions, activities and face-to-face meetings;
- **Request** improved project coordination/communication in the region in an effort to reduce activity duplication, increase sustainability and better meet the needs of the region. This would require donors share climate project activity details with the PICS panel for feedback during the design phase, before the finalisation of projects;
- **Note** the ability to deliver enhanced climate services with the assistance of Machine Learning (ML) and Artificial Intelligence (AI). NMHSs advised to carefully review the credentials of individuals/agencies offering support in this space. A task team made up of BOM, APCC, NOAA, CSIRO, UKMO, led by NIWA will produce a paper on the advantages and disadvantages of ML and AI. Paper will be shared via the Pacific Regional Climate Centre website.





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### Annex 1

# Pacific Islands Climate Services Panel Terms of Reference

(Updated 27 August 2024)

## 1. Introduction

1.1 The Pacific Island Climate Services Panel (PICS Panel) was endorsed by the Second Meeting of the Pacific Meteorological Council (PMC-2) to serve in the capacity of an advisory committee to the Pacific Meteorological Council (PMC) on climate services matters in the Pacific region ([https://www.sprep.org/attachments/Publications/PMC-2\\_Meeting\\_Report.pdf](https://www.sprep.org/attachments/Publications/PMC-2_Meeting_Report.pdf)).

1.2 The PICS Panel established the WMO RA V Pacific Regional Climate Centre Network (Pacific RCC-N), endorsed by the PMC in 2017 (currently in demonstration mode). The Pacific RCC-N is a virtual Centre of Excellence that assists National Meteorological and Hydrological Services (NMHSs) in the Pacific Islands region to deliver climate services and products and to strengthen their capacity to meet national climate information and service delivery needs. While the Pacific RCC provides *operational* scientific services to NMHSs for long range forecasting, climate monitoring, climate projections, data services and training, the PICS Panel provides a *strategic* advisory service, providing the link between the Pacific RCC Management Committee and the PMC.

## 2. Purpose

2.1. The purpose of the PICS Panel is to provide non-technical scientific advisory services to the PMC on matters related to the strengthening and coordinating of climate services at the community, national and regional levels and to guide the Pacific RCC-N in implementing the GFCS in a way consistent with Pacific climate service priorities. Future management of the Pacific RCC-N would ideally be delivered by the Pacific RCC-N management committee (with the PICS panel as a member). The Pacific RCC-N would ideally sit alongside the PICS Panel, co-managed by the WMO and PMC.

## 3. Role of the PICS Panel

3.1. The role of the PICS Panel, in consultation with other partners, is to provide non-technical advice to the PMC on the following:

- a) The strengthening, coordination, continuity and integration of current and future programmes, projects and initiatives that support climate services at the community, national and regional levels.



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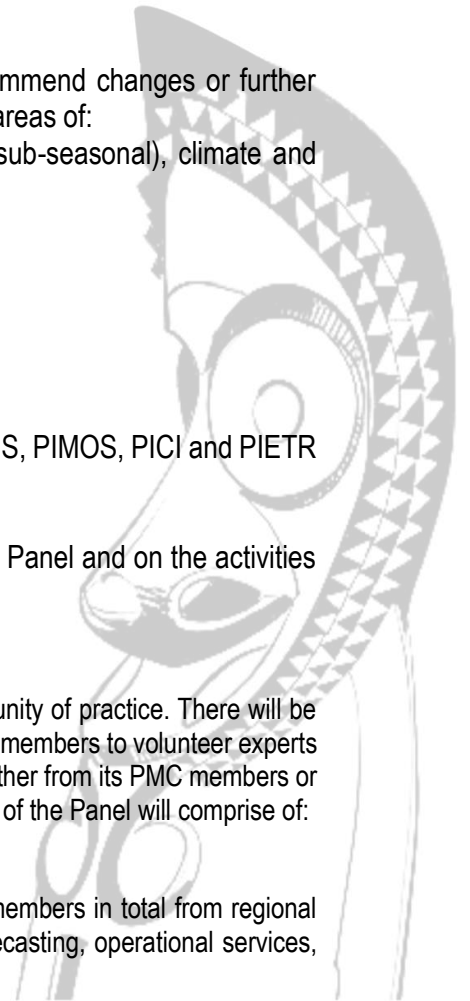
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- b) The enhancement of avenues and modes of multi-way communication and feedback between climate services providers and users to enhance the uptake and use of relevant and tailored climate services down to the communities and individuals.
- c) Advisory to, and monitoring of, climate services-related projects and programmes in the Pacific that address priority activities outlined in the Pacific Island Meteorological Strategy (PIMS) 2017-2026 (in particular, PKOs 4-6)
- d) Seek funding support for and monitoring of the regional and national actions listed in the "Pacific Roadmap for Strengthened Climate Services 2017-2026".
- e) Advisory to, operational activities of the WMO RA V Pacific Regional Climate Centre, ensuring consistency with key climate service-related Pacific strategic priorities identified by the PMC and outlined in the Pacific Island Meteorological Strategy (PIMS) 2017-2026 and the Pacific Roadmap for Strengthened Climate Services 2017-2026.
- f) The review of regional climate services needs and capabilities to recommend changes or further development Pacific RCC Network nodes products and services, in the areas of:
  - Long-Range Forecasting - climate predictions (seasonal and sub-seasonal), climate and multi-hazard early warning
  - Climate Monitoring (both short- and long-term climate)
  - Climate Change Projections
  - Operational Data Services - data and product-based services
  - Training - relevant to the different RCC nodes
  - Research and development,
- g) Coordination of activities with other PMC panels, such as the PIAWS, PHS, PIMOS, PICI and PIETR panels.
- h) The regular reporting to the PMC members on the progress of the PICS Panel and on the activities of the Pacific RCC.

## 4. Membership

4.1. The PICS Panel membership will comprise of the climate services community of practice. There will be core membership, but at the same time it remains open-ended to allow for the PMC members to volunteer experts to participate in the PICS Panel activities and for the PICS Panel to invite experts either from its PMC members or its partners or climate users to its meetings and discussions. The core membership of the Panel will comprise of:

- a) PMC members.
- b) 1 member from the WMO RA V Working Group on Climate Services, eight members in total from regional organisations and institutions supporting climate observations, research, forecasting, operational services, information management and capacity building in the Pacific region.
- c) Open representation from the climate services user community.





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- 4.2. The current core membership of the PICS Panel is given in Annex 1.
- 4.3. The PICS Panel will appoint its Chair, and if necessary, a vice-Chair (see Section 5)
- 4.4. The PICS Panel may invite non-voting experts to its meetings and discussions.
- 4.5. The PICS Panel may establish Task Team(s) to carry out specific time bound task(s) for limited time period.
- 4.6. Meetings of the PICS Panel shall be coordinated and convened by the Chair, with the support of the Pacific Meteorological Desk Partnership (PMDP).
- 4.7. The chair with assistance from the PMDP will review membership from time to time (minimum once every two years) in order to keep it up to date and account for resignation/study leave etc. This process will be undertaken by emailing the member head of agency and asking if they agree to the respective agency member continuing on the PICS panel/or wish to re-nominate. This list will be shared with the PMC and other panels as required.

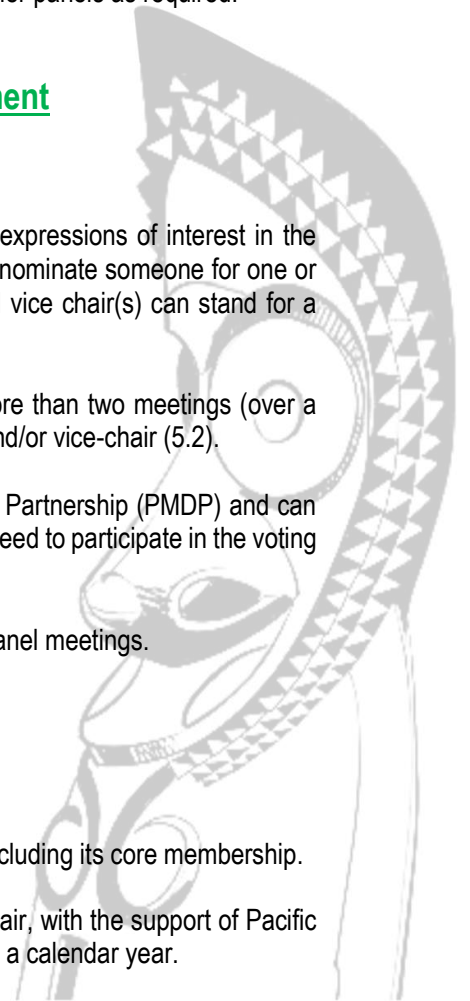
### **5. Appointment of Chair/vice-chair and duration of appointment**

- 5.1. The PICS Panel chair(s)/vice chair(s) serve for three (3) years.
- 5.2. At the end of each term, the chair at a PICS panel meeting will call for expressions of interest in the chair/vice chair roles. This will take the form of a member indicating their desire to nominate someone for one or both roles or a member indicating their interest in a role. The current chair(s) and vice chair(s) can stand for a second term if they wish to do so.
- 5.3. Should the current chair and/or vice-chair step down or be absent for more than two meetings (over a period of six months) this enables the process of election for a replacement chair and/or vice-chair (5.2).
- 5.4. The election process will be managed by the Pacific Meteorological Desk Partnership (PMDP) and can either held by face-to-face via online ballot. At least 12 (50%) of the core members need to participate in the voting process. Only one vote per member is recognised.
- 5.5. The secretariat will update the ToR to include changes adopted at PICS panel meetings.

### **6. Review and Approval of Terms of Reference**

- 6.1. The PICS Panel may revise its ToR as and when necessary.
- 6.2. The PMC to consider and approve amendments to the PICS Panel ToR including its core membership.
- 6.3. Meetings of the PICS Panel shall be coordinated and convened by the Chair, with the support of Pacific Meteorological Desk Partnership (PMDP). A minimum of two meetings to be held in a calendar year.

### **Annex 1: PICS Panel Core Members**





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Representatives	Number	Institutions
Roving 5 member representatives of the PMC to be selected by PMC	14	American Samoa, Australia, Fiji, French Polynesia, FSM, Kiribati, Niue, Palau, Papua New Guinea, New Caledonia, New Zealand, Tonga, USA, Vanuatu
Member of RA V Working Group on Climate Services	1	TBD
Members from regional organisations and institutions supporting climate observations, research, forecasting, operational services, information management and capacity building in the Pacific region.	8	SPC, USP, SPREP, CSIRO, APCC, IFRC, UKMO, WMO
Representatives from the climate services user community	1	currently Olivia Warrick (OCW Consulting)

Pacific Island Climate Services Panel membership of 27 August 2024

Country/Agency	Name	Comments
Palau	Maria Ngemaes	
Guam	Not a member	
Federated States of Micronesia	Johannes Berdon	
RMI	Not a member	
PNG	Kasis Inape	Nominated by Jimmy Gomoga
Solomon Islands	Not a member	
Vanuatu	Jerry Timothy	Nominated by Montine Romone 13 April 2023 via email
Fiji	Arieta Baleisolomone (Vice-chair)	Nominated by Terry Atalifo 13 April 2023 via email. Elected vice-chair via online voting process in April 2023.
New Caledonia and Wallis & Futuna	Alexandre Peltier	
Tonga	Seluvaia Finaulahi	
Niue	Rossy Mitiepo	
Samoa	Not a member	



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American Samoa	Elinore Lutu McMoore	
Cook Islands	Not a member	
French Polynesia	Victoire Laurent	
Tokelau	Not a member	
Kiribati	Kamaitia Rubeetake	Confirmed membership with Ueneta Toorua on 28 June 2023
Nauru	Not a member	
Tuvalu	Not a member	
NOAA	John Marra	According to the minutes of 05 August 2019 and ToR not a member but a member of the RCC-N
NIWA	Ben Noll	
Bureau of Meteorology	Simon McGree (Chair)	
CSIRO	Leanne Webb	Geoff Gooley retired on 30 June 2024
IFRC	Jen Stewart	
APCC	Jin Ho Yoo	
UK Met Office	Elisabeth Thompson	On maternity leave. Joined 30 June 2023. Sarah Holmes will act the Met Office rep while she is away.
SPC	Moleni Tu'uholoaki	
SPREP	Salesa Nihmei Philip Malsale (Secretariat)	
University of the South Pacific	Awnesh Singh	
Open representative from sectors	Olivia Warrick	
Samoa Water Division		Membership discontinued now UIP's and NCOF's exist
Tonga Ministry of Agriculture		Membership discontinued now UIP's and NCOF's exist
Cook Islands NDMO		Membership discontinued now UIP's and NCOF's exist