PACIFIC METEOROLOGICAL COUNCIL

SEVENTH MEETING OF THE PACIFIC METEOROLOGICAL COUNCIL

PMC-7

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

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

LONG GOD YUMI STANAP

SPREP
Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

Seventh Meeting of the Pacific Meteorological Council (PMC-7)

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SPREP
Secretariat of the Pacific Regional Environment Programme

Secretariat of the Pacific Regional Environment Programme (SPREP)
PO Box 240, Apia, Samoa, sprep@sprep. org, www. sprep. org

SPREP's vision: *The Pacific environment, sustaining our livelihoods and natural heritage in harmony with our cultures.*

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- Vanuatu Ministry of Climate Change Adaptation, Meteorology & Geo-Hazard, Environment, Energy and Disaster Management
- Secretariat of the Pacific Regional Environment Programme (SPREP)
- World Meteorological Organization (WMO)
- Asian Development Bank (ADB)
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- Government of New Zealand
- United Nations Environment Programme (UNEP)
- United Nations Disaster Risk Reduction (UNDRR)
- Pacific Community (SPC)
- Varysian Network

Additionally, our other esteemed partners, whose contributions have been invaluable.

The success of the PMC-7 belongs to the more than two hundred and fifty participants from throughout the region and beyond. The PMC-7 ensured the collective sharing of experiences and inputs will continue, to help shape and facilitate the interaction and knowledge on the needs and priorities of its Members in relation to meteorology, weather and climate and related fields for the empowerment of Pacific island people of the Blue Pacific Continent.

Acronyms

IWXXM	Meteorological Information Exchange Model
2050 Strategy	2050 Strategy for the Blue Pacific Continent
ACCESS-S	Australian Community Climate and Earth-System Simulator Software
ADP	Asian Development Bank
AFS	Aeronautical Fixed Service
AFTN	Aeronautical Fixed Telecommunication Network
AMHS	Aeronautical Messaging Handling System
ANP	Air Navigational Plan
APAC	Asia and Pacific Office
APCC	Asia-Pacific Economic Cooperation (APEC) Climate Centre
AWP	Annual Work Plan
BCDRP	National Broadcast and Climate Disaster Resilience Plans
BoM	Bureau of Meteorology
CAA	Civil Aviation Authorities
CAP	Common Alerting Protocol
CAR	Civil Aviation Rules
CbEWS	Community-based Early Warning Systems
CDCRM	Community Disaster & Climate Risks Management
CIS-Pac-5	Enhancing Climate Information and Knowledge Services for Resilience in PSIDS
CliDE	Climate data for the environment
CliDEsc	Climate Data for the Environment Services Client
ClimSA	European-Union funded Intra-ACP Climate Services and Related Application
CLIPSSA	Climat du Pacifique, Savoirs Locaux Et Strategies D'Adaptation
COP	Conference of the Parties
COP29	29th session of the UNFCCC Conference of the Parties
COSPPac2.0	Climate and Oceans Support Program for the Pacific Phase 2.0
COSPPac3.0	Climate and Oceans Support Programme for the Pacific Phase 3
CREWS	Climate Risk Early Warning System
CREWS2.0	Climate Risk Early Warning System phase 2
CROP	Council of Regional Organisations of the Pacific
CSIRO	Commonwealth Scientific and Industrial Research Organisation of Australia
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EU	European Union
EW4All	Early Warning For All Initiative
EWS	Early Warning Systems
FRDP	Framework for Resilient Development in the Pacific
FSM	Federated States of Micronesia
GCF	Green Climate Fund
GEF	Global Environment Facility
GEM	Geoscience, Energy and Maritime Division of the Pacific Community
GFCS	Global Framework for Climate Services
GNAP	Global Air Navigation Plan
IBF	Impact-based Forecasting
ICAO	International Civil Aviation Organization
ICT	Information and communications technology
IDSS	Impact based decision support services
IMO	International Maritime Organization
INDC	Intended Nationally Determined Contributions

IOC	Intergovernmental Oceanographic Commission
ISO	International Organization for Standardization
METARs	Meteorological Aerodrome Reports
MET-IE	Meteorological Information Exchange
MHEWS	Multi-Hazard Early Warning Systems
MOU	Memorandum of Understanding
NCOF	National Climate Outlook Forum
NDA	Nationally Designated Authority
NDMO	National Disaster Management Office
NEMS	National Environment Management Strategies
NIWA	National Institute of Water and Atmospheric Research
NMHSs	National Meteorological and Hydrological Services
NOAA	National Oceanic and Atmospheric Administration
OPDs	Organisations for Persons with Disabilities
OPMET	Operational meteorological
ORSNET	Oceania Regional Seismic Network
PASO	Pacific Aviation Safety Office
PCCC	Pacific Climate Change Centre
PCCOS	Pacific Community Centre for Ocean Science
PCCR	Pacific Climate Change Roundtable
PDNA	Post Disaster Needs Assessment
PDRRMM	Pacific Disaster Risk Reduction Ministers Meeting
PHS	Pacific Hydrology Services
PIAWS	Pacific Island Aviation Weather Services
PICASO	Pacific Island Countries Advanced Seasonal Outlook
PICI	Pacific Island Communication and Infrastructure
PICOF	Pacific Islands Climate Outlook Forum
PICS	Pacific Island Climate Services
PIDF	Pacific Islands Development Forum
PIETR	Pacific Island Training, Education and Research
PIFS	Pacific Islands Forum Secretariat
PI-GOOS	Pacific Islands Global Ocean Observing System
PIMOS	Pacific Island Marine and Ocean Services
PIMS	Pacific Islands Meteorology Strategy 2017-2026
PIOAC	Pacific Islands Ocean Acidification Centre
PMC	Pacific Meteorological Council Meeting
PMDP	Pacific Meteorological Desk Partnership
PMMM-3	Third Pacific Ministerial Meeting on Meteorology
PMMM-4	Fourth Pacific Ministerial Meeting on Meteorology
PRC	Pacific Regional Centre
P-RTC	Pacific Regional Training Centre
P-RTC	Pacific Regional Training Centre
PSIDS	Pacific Small Island Developing States
QMS	Quality Management System
RAV	Regional Association V
RCC	WMO RA-V Pacific Regional Climate Centre
RCC-N	WMO RA-V Pacific Regional Climate Centre (RCC) Network
ROBEX	Regional OPMET exchange
ROC	Regional OPMET Centre
RODBs	APAC Regional OPMET Data Banks

RSMC	Regional Specialised Meteorological Centre
SIGMET	Significant Meteorological Information
SOFF	Systematic Observations Financing Facility
SOLAS	International Convention for the Safety of Life at Sea
SOP	Standard Operating Procedures
SPC	The Pacific Community
SVO	Pacific State volcano observatories
TC	Tropical Cyclone
TEMCO	Territorial Emergency Management Coordination
TEOP	Territorial Emergency Operations Plan
TK	Traditional Knowledge
UKMO	United Kingdom Met Office
UNDP	United Nations Development Programme
UNDRR	United Nations Disaster Risk Reduction
UNEP	United Nations Environment Programme
UNESCO-IOC	Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
COP29	29th Conference of the Parties to the UNFCCC
USGCRP	United States Global Change Research Program
USP	University of the South Pacific
VAAC	Volcanic Ash Advisory Center Regions
VanKIRAP	Climate Information Services for Resilient Development in Vanuatu Project
VCP	Voluntary Cooperation Programme
VONA	Volcanic Observatory Notice for Aviation
WG-HWR	Working Group on Hydrology and Water Resources
WISER	Weather and Climate Information Services
WMO	World Meteorological Organization
WRP	Weather Ready Pacific

Introduction

The Government of Vanuatu, in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP) and the World Meteorological Organization (WMO) hosted the Seventh Pacific Meteorological Council Meeting (PMC-7) from 17-19 September 2024, at the Warwick Le Lagon-Vanuatu Resort in Port Vila, Vanuatu. The PMC-7 included representation from American Samoa, Australia, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tokelau, Tuvalu, United Kingdom, United States of America, and Vanuatu. The PMC convened with the Secretariat support of the Secretariat of the Pacific Regional Environment Programme (SPREP), and World Meteorological Organization (WMO) with the presence of national, regional and global partners including from the United Nations, Council of Regional Organisations of the Pacific, civil society, non-governmental organisations and the private sector. *Refer to annexes for agenda and participants list.*

The Pacific Meteorological Council (PMC) is a specialised subsidiary body of SPREP, established at the Fourteenth Regional Meteorological Services Directors (RMSD) meeting in Majuro, Marshall Islands in August 2011 to facilitate and coordinate the scientific and technical programmes and activities of the RMSD meeting. The PMC replaces the Regional Meteorological Services Directors body and provides policy relevant advice to the SPREP Meeting on the needs and priorities of its member countries and territories in relation to meteorology of weather and climate and related fields. The PMC normally meets on a biannual basis.

The PMC-7 was organised around the following objectives:

- Facilitate/foster coordination, networking, sharing of information, and discussions among PMC's members, development partners, CROP agencies, UN agencies, collaborating organisations, and institutions on current status and advancement of weather, climate, water, ocean, and related development services in support of national development and a resilient Pacific;
- Review the PMC and the Pacific Met Desk Partnership coordination role, scope of operations, and required resourcing including the PMC Terms of Reference and Rules of Procedures;
- Discuss the Weather Ready Pacific progress and any updates;
- Review the progress in the implementation of the PIMS through the PMC Panel work, identifying achievements, challenges, and gaps;
- Present the reviews of the regional strategies related to the PMC (Pacific Island Met Strategy, Pacific Climate Change and services Research Roadmap, and the Pacific Roadmap for Strengthened Climate Services);
- Provide an opportunity for national Hydrology services, National Disaster Management Offices, and national stakeholders to participate in the PMC meeting; and
- Ensure the meeting is socially inclusive.

The outcomes of the PMC-7:

- Awareness of the shared progress of the PIMS and issues since PMC-6;
- Strengthened partnerships and networking with development partners, CROP organisations, UN agencies, collaborating organisations, and institutions;
- Increased awareness of potential direct access to financial resources by PICTs for development and advancement of weather, climate, water, and ocean services;
- Discussed progress of the Review of the PMC and its Secretariat, the Pacific Meteorological Desk Partnership (PMDP);
- An update on the review of the Pacific Meteorological Strategy and the Pacific Roadmap for Strengthened Climate Services;
- An update of the Weather Ready Pacific; and
- An update provided from the PMC Panels (PICS, PIAWS, PIMOS, PIETR, PICI, PHS) on the progress of their works and directions for future works of PMC in the development of weather, climate, water, and ocean services.

This report offers a short synopsis of the working papers presented during the Meeting, the key discussion points, and the Meeting recommendations. For more information on a given agenda item please refer to the working papers and presentations that were submitted to the Meeting, which are available at the following website link: https://www.pacificmet.net/pmc/meetings/pmc-7

AGENDA ITEM 1. Opening Ceremony

1. The seventh Meeting of the Pacific Meteorological Council (PMC-7) opened with a special cultural performance of welcome from Futuna island in TAFEA Province, in the southern part of Vanuatu. Pastor Thompson Aki, Vice Chairman of the Vanuatu Christian Council blessed the meeting with a prayer in Bislama, extending well wishes to all participants for a successful meeting and meaningful deliberations.

2. Mr. Misaeli Funaki, PMC-6 Chair for the Fiji Government delivered remarks of appreciation that reflected upon the journey of the Pacific Meteorological Council. It was noted that in 1993, the region's meteorological directors met in Port Vila for the first time, laying the groundwork for what would later become the Regional Meteorological Services Directors (RMSD) Meeting. That initial meeting led to the formation of the Pacific Meteorological Council (PMC) in 2011 in the Marshall Islands, and it has since grown in scope and prominence. What started with just four agenda items in 1993, and 50 participants has now expanded to over 20 agenda items with almost 200 participants, demonstrating how far the PMC has come in addressing the complex challenges faced by the Pacific region. The role and leadership of past directors and members of PMC were duly acknowledged, and a warm welcome extended to their successors, present in the meeting.

3. Mr. Sefanaia Nawadra, Director General of SPREP and Mr. Cyrille Honore of WMO as the Secretariat of the PMC presented remarks on the growth of the PMC and the importance of partnerships in achieving resilience for the region. Mr. Nawadra noted the significance of the Seventh Pacific Meteorological Council meeting convening in Vanuatu, which holds historical importance for the meteorological community. It was noted that the discussions in 1993 centred on how meteorological services could work together to understand and mitigate the impacts of climate change. Over the years, Vanuatu has consistently been at the forefront of hazard response, facing numerous tropical cyclones, volcanic eruptions, tsunamis, and earthquakes. Mr. Nawadra announced that at SPREP there will be two programmes that will work on climate change including a separate one on meteorology and climate science.

4. It was noted by Mr. Honore that the Seventh Pacific Meteorological Council meeting is significant for WMO due to the decisions of the WMO Executive Council, during its 78th session. This session adopted a number of strategic matters including a road map to guide the WMO coordinated contribution to the Early Warnings for All Initiative (EW4All), the Implementation Plan for the Global Greenhouse Gas Watch, and the discussion of new initiatives including the Resource Mobilization Strategy and the development of a Youth Action Plan. Mr. Honore highlighted the core technical work of WMO correlates with the PMC agenda, which is important to the common efforts aimed at supporting Pacific islands people, improving their daily lives and to keep them as safe as possible from the impacts of climate change.

5. The official opening remarks were delivered by the Government of Vanuatu as the host and chair of PMC-7 through the Honourable John Dahmasing Salong, Minister of Climate Change. A moment of silence was observed in remembrance of those that have passed. The Honourable Minister noted the gathering marked a crucial moment in the collective efforts to address the pressing challenges of climate change and its profound impacts on the Pacific region, with impacts on communities, economies and natural ecosystems.

6. The Honourable Minister emphasised that the Pacific is at the forefront of climate change, and communities are experiencing its effects acutely, from rising sea levels to increasingly severe weather events, the challenges faced are unprecedented. It was noted that in March 2023, Vanuatu witnessed back-to-back severe Tropical Cyclones Kevin and Judy, causing widespread destruction across the provinces, affecting at least 80 percent of the country's population. It was noted that while Vanuatu has faced many challenges, it has also enabled opportunities for collaboration, innovation, and leadership. It was noted that as the Minister of Climate Change for Vanuatu, there is acute awareness of the responsibilities to not only its own citizens, but also to the entire Pacific region. The Honourable Minister noted that the decisions made, and the strategies developed during the PMC-7 will shape the future of Vanuatu and the Pacific region including the well-being of Pacific island people. *Refer to annex for copies of speeches.*

AGENDA ITEM 2. Organisation of the Seventh Meeting of the Pacific Meteorological Council (PMC-7)

2.1 Election of Chair and Vice Chair for PMC-7

THE MEETING:

I. CONFIRMED the Representative of Vanuatu as Chair; and

II. CONFIRMED the Representative of the Republic of Marshall Islands as Vice-Chair.

7. The exchange of traditional cultural gifts between the incoming and outgoing PMC Chairs of Vanuatu and Fiji and incoming and outgoing PMC Vice-Chairs of Marshall Islands and Kiribati were presented.

8. The leadership of the outgoing Chair of Fiji was acknowledged with sincere appreciation, as well as that of the outgoing Vice-Chair of Kiribati. Congratulations were extended to the new Chair Vanuatu and new Vice-Chair of Marshall Islands in their leadership role of PMC -7.

2.2 Adoption of Agenda and Programme of Work

THE MEETING:

I. CONSIDERED and ADOPTED the Provisional Agenda; and

II. AGREED on hours of work.

2.3 Establishment of Drafting Committee

THE MEETING:

I. APPOINTED an open-ended PMC-7 Report Drafting Committee of American Samoa, Cook Islands, Federated States of Micronesia, New Zealand, Niue, Solomon Islands, and United States chaired by the Marshall Islands as the PMC-7 Vice-Chair.

AGENDA ITEM 3. Setting the Scene for PMC-7 Objectives and Expected Outcomes, PIMS Overview

THE MEETING:

I. NOTED the objectives and expected outcomes of the PMC-7 Meeting.

9. The Secretariat presented the objectives and expected outcomes of the Meeting. It was noted that there were more than 200 participants officially registered with representation from 20 Members that included Australia, American Samoa, Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, United States, United Kingdom, and Vanuatu. Apologies were received from France, French Polynesia and New Caledonia.

10. The Secretariat also acknowledged representatives from the various UN agencies, CROP agencies, universities, development partners and members of the private sector and welcomed representatives from both the Japan Meteorological Agency, Korean Met Institute and China Meteorological Administration joining PMC for the first time.

AGENDA ITEM 4. Report on Actions Taken on Matters Arising from the 6th Meeting of the Pacific Meteorological Council (PMC-6) and Ministerial Meeting Outcomes

THE MEETING:

I. NOTED the actions taken in implementing the decisions and directives of PMC-6; and

II. REQUESTED the Secretariat, Pacific Meteorological Council Panels, National Meteorological and Hydrological Services' and Partners to implement outstanding decisions and directives of PMC-6 and past PMCs'.

11. The PMC-6 Chair Mr. Misaeli Funaki from Fiji presented the report on Actions taken on Matters arising from PMC-6 and PMMM3. The meeting noted the implementation of activities on legislation, PMC Expert Panels, engagements, capacity building and new partnerships. It acknowledged the support from the partners, donors and all the national meteorological and hydrological services, Disaster Management offices who have progressed and implemented these activities.

12. The presentation noted 87 recommendations and outcomes from the PMC-6 and Namaka Declaration.

13. It was noted that the details of the work completed will be presented by the respective Expert Panels under the relevant PMC-7 agenda items.

AGENDA ITEM 5. Updates on WMO Executive Council Decisions and RA-V Activities

THE MEETING:

I. NOTED the above resolutions/decisions adopted by EC-78 and WMO RA-V activities, and the Members are encouraged to engage actively in RA-V activities.

14. WMO presented the summary of the WMO Executive Council in 2024 and provided the summary of decisions and resolutions adopted by the Executive Council and the summary of activities from the RA-V. WMO provided the report and reminded the meeting of the decisions and resolutions. The PMC were also reminded of their role as members of the RA-V.

15. WMO informed the Council of the strategic and technical matters, new initiatives, programme, planning and other priorities discussed at both the global and regional level in particular the connections to areas such as aeronautical services, volcanic observations and collaborative efforts for working with other sectors.

16. For RA-V activities, the WMO updated Council members of the Nineteenth session where elections for the president and vice president will take place. It was strongly recommended for the Council to consider attending the meeting, and for members to engage actively in RA-V activities.

17. Solomon Islands as the Acting Chair of RA-V acknowledged the council and the former President of RA-V Mr Ofa Fa'anunu for the guidance and support. Solomon Islands have expressed interest to WMO in hosting the Nineteenth meeting of RA-V in Honiara, in May 2025.

AGENDA ITEM 6. Regional Priorities

6.1 Pacific Islands Forum Leaders Meeting

THE MEETING:

I. NOTED the 53rd Pacific Islands Forum Leaders Meeting Report.

II. RECOMMENDED for Weather Ready Pacific to continue its visibility at the Pacific Islands Forum Leaders Meeting by implementing targeted pilot activities/projects for demonstration at the Pacific Islands Forum host country.

III. RECOMMENDED that SPREP strategically position itself to meet the growing needs of the Pacific region in climate and meteorological science, in alignment with the outcomes of the Pacific Islands Forum Leaders' Meeting and the region's focus area, which includes enhancing SPREP's capacity to support regional priorities and contributing effectively to the implementation of the 2050 Strategy.

18. It was noted that Tonga successfully hosted and Chaired the 53rd Pacific Islands Forum Leaders Meeting (PIFLM53) from 26-30 August 2024. Tonga presented a comprehensive report on the key outcomes of the PIFLM53 Communique relevant to PMC-7.

19. The role and importance of the 2050 Strategy for the Blue Pacific Continent as the North Star of the Pacific was highlighted as critical to the work of PMC particularly in respect of the thematic areas of Climate Change and Disasters and Ocean and Environment, as well as the regional collective action of Weather Ready Pacific, which have all been endorsed by Pacific Leaders.

20. Tonga also shared the key activities of the UN Secretary General and the WMO Secretary General who were both special guests of the PIFLM53. The activities that they were involved in ranged from:

- **a.** Launch of the COPE Series Tongan Translated Booklets on Tropical Cyclones to be used in schools.
- **b.** Witnessing a panel discussion on Tonga's evacuation procedures: A Students and Teachers Perspective.
- **c.** Launch of the Tonga Radar.
- **d.** Launch of the State of the Climate Report for the South-west Pacific.
- **e.** Visit to the Tonga Meteorological Service and a site visit to the Construction of the new Joint Tonga Meteorological Service/NDMO Head Office at Matatoa.

6.2 Framework for Resilient Development in the Pacific (FRDP)

THE MEETING:

I. NOTED the progress of the Framework for Resilient Development in the Pacific.

21. The Secretariat presented a brief overview of the FRDP and update on the mid-term review of the FRDP.

AGENDA ITEM 7. Role of the National Meteorological and Hydrological Services in International and Regional Engagement

THE MEETING:

I. NOTED the outcomes of the Pacific Climate Change Roundtable.

II. NOTED the significance of climate science in determining national adaptation and loss and damage needs and the important role of National Meteorological and Hydrological Services.

III. INVITED the nomination of an official to actively engage in the Intergovernmental Panel on Climate Change process.

IV. NOTED the update on preparations for COP29 and the important role National Meteorological and Hydrological Services play in the negotiations of Research and Systematic Observation related agenda items.

22. The SPREP Secretariat noted the conversations on how the PMC has grown and the increasing importance and growth of science, which is necessary for resilient development of the Pacific region.

23. The main objectives of the presentation were noted as follows:

- **a.** To inform members on the preparation for UNFCCC COP29 and opportunities for National Meteorological and Hydrological Services Officials (NMHSs) engagement in the negotiation process and opportunities to engage in the process.
- **b.** To update members of the outcomes of the Pacific Climate Change Roundtable.
- **c.** To inform members of work in climate change mitigation, adaptation and loss and damage, identifying opportunities for potential engagement of NMHSs.

24. Building on earlier comments conveyed by Tonga in their presentation on the Pacific Islands Forum leaders Meeting, reference was also made to the 2050 Strategy for the Blue Pacific Continent, which articulates the agreed priorities and aspirations of the region endorsed by Pacific Leaders in 2022.

25. The Secretariat shared an update on the reconvened Pacific Climate Change Roundtable (PCCR), which was held in Apia, Samoa in May 2024. It was noted that the outcomes of the PCCR were endorsed by the 4th SPREP Executive Board Meeting held from 4-6 September 2024.

26. An update was provided on the UNFCCC and the role of SPREP as the lead of the One CROP to support the Pacific Small Island Developing States (PSIDS) with the negotiations process including on Research and Systematic Observation (RSO). It was also noted as an opportunity to work with the Alliance of Small Island States (AOSIS) counterparts to advance regional positions.

27. The Secretariat highlighted the convening of a preparatory COP29 Meeting which shall include a ministerial component that will be hosted in Nadi, Fiji from 31 September – 3 October 2024. It was shared that the preparatory meeting supports the PSIDS RSO thematic coordinator and all Pacific negotiators in their respective thematic priorities to advance regional positions at COP29.

28. The SPREP Secretariat provided updates on concepts developed for Mitigation Action Plans and Adaptation supporting National Adaptation Plans (NAPs) for Federated States of Micronesia, Nauru, and Tuvalu.

29. Addressing loss and damage finance was highlighted. It was noted that the SPREP Secretariat has secured funds for national dialogues to define loss and damage and to help develop a methodology to measure non-economic loss and damage and develop case studies. It was also noted that the project will help support implementation of pilot projects and develop concepts to access finance for implementation of national loss and damage priorities and opportunities for enhanced engagement.

30. The Secretariat concluded the presentation that there is growing recognition of the important role of the PCCR, involvement of RSO in the COP negotiations and importance of national engagement for National Adaptation Plans and on Loss and Damage.

AGENDA ITEM 8. Weather Ready Pacific, Governance Structure and other global initiatives

8.1: Progress and Update on the Weather Ready Pacific

THE MEETING:

I. NOTED the progress made by the Weather Ready Pacific Programme since PMC-6 and encouraged members to work closely with the Weather Ready Pacific PMU on implementation.

II. ACKNOWLEDGED the Government of the Cook Islands and Tonga for showcasing the Weather Ready Pacific to the Leaders meeting in 2023 and 2024.

III. ACKNOWLEDGED with appreciation the funding support of the Government of Australia, New Zealand and the United Kingdom for the initial funding to the Weather Ready Pacific Programme and invited development partners and donors to invest in this decadal programme.

IV. CONTINUED to recognise that the infrastructure investment under the Weather Ready Pacific is critical for addressing the climate emergency in the Pacific.

V. ENDORSED the high-level activities of the Weather Ready Pacific inception phase.

VI. APPROVED, the mandate of PMC and Weather Ready Pacific in relation to other hazards will be limited to PMC Members who provide those non-meteorological services pending the Weather Ready Pacific /EW4All alignment review. e.g. PMC and Weather Ready Pacific may decide to carryout geohazard activities in Samoa, Tonga, Solomon Islands and Vanuatu because they are within the mandate of the National Meteorological Services of these countries and noting that some members have existing arrangements with geohazards departments.

VII. ENCOURAGED attendance at the inaugural Meeting of the Weather Ready Pacific Steering Committee to be held at the Ramada Resort on 20 September 2024. Members of the Steering Committee include the following:

- **a.** All Members of the Pacific Meteorological Council (Directors of Meteorology)
- **b.** Directors of Regional NDMOs (Cook Islands, Marshall Islands and Vanuatu)
- **c.** Representative from Weather Ready Pacific funding agencies (DFAT, MFAT, UK and JICA)
- **d.** Weather Ready Pacific Programme Manager
- **e.** Partners invited as Observers
- **f.** Head of Delegation from CROP Agencies
- **g.** Head of Delegation from UN and EW4All Lead agencies
- **h.** Head of Delegation Regional and International Donor agencies
- **i.** Representative from WMO Members

31. It was noted by the Secretariat that Weather Ready Pacific is made up of five key result areas of 1) Management and Coordination; 2) Production of Forecasts and Warnings; 3) Communications and delivery of forecasts to end users; 4) Infrastructure; and 5) Capacity development and training.

32. An update of all activities in progress or completed to date was presented including the recruitment of the Programme Manager in June 2024. A key highlight was the launch of the Pacific Radar Pilot launched in Tonga as part of the side events for the 53rd Pacific Islands Forum Leaders Meeting with the presence of the Secretary General of the United Nations, and Secretary General of the World Meteorological Organization.

33. An update was also provided on development assistance received under Weather Ready Pacific from:

- **a.** Australia of AUD 30 million (March 2023)
- **b.** New Zealand of NZD 20 million (January 2024)
- **c.** UK Met Service of GBP 300,000 through the Wiser Programme. (Funding completed June 2024)
- **d.** Government of Japan for the construction of the Regional Training Centre (RTC) and Regional Instrument Centre (RIC) in Fiji, which is to be completed in 2027.
- **e.** UNDRR with provision of GEDSI consultant for the period December 2024 to 2025
- **f.** ADB funding of Met and NDMO Directors to attend PMC and Weather Ready Pacific Steering Committee.

34. There was strong support from the participants for the Weather Ready Pacific initiative, highlighting its role in unifying efforts across the Pacific region. All members emphasised the importance of collaboration and noted the progress and leadership of the Weather Ready Pacific in fostering this unity. Tonga appreciated the involvement of the former Director to drive Weather Ready Pacific as the Manager and encouraged all members and partners to support the initiative. Fiji also noted the importance of Weather Ready Pacific complementing existing initiatives.

35. Several countries expressed their gratitude towards the Weather Ready Pacific Manager and the contributing partners, particularly recognising the contributions of Australia, New Zealand, UKMET, SPREP, and other stakeholders. Samoa highlighted the impact of the Weather Ready Pacific on local training and expressed appreciation for the inclusivity of the initiative. Kiribati and Vanuatu also noted the significant support provided by Weather Ready Pacific and stressed the need for inclusivity and continued focus on both meteorological and non-meteorological hazards however, stresses that Meteorology hazards should be the priority.

36. The need for greater inclusivity and effective collaboration between National Meteorological Services (NMS) and National Disaster Management Offices (NDMO) was emphasised. Cook Islands NDMO and SPREP noted the importance of partnerships and the need for improved representation and participation from NDMO representatives. The Weather Ready Pacific Programme Manager responded positively, acknowledging these concerns, and committing to work closely with all involved to address needs and ensure effective implementation of the initiative.

37. American Samoa acknowledged the Weather Ready Pacific initiative and noted that as a territory American Samoa is often left behind. American Samoa emphasised the importance of ensuring that Weather Ready Pacific moves forward with all Pacific islands and territories, so that no one is left behind. American Samoa was inspired by the demonstration of Pacific leadership as presented by the Prime Minister of Tonga as the Weather Ready political champion, the SPREP Director General and Director of Climate Change Resilience. American Samoa noted they look forward to contributing to a Weather Ready Pacific that is inclusive.

38. Papua New Guinea congratulated the Weather Ready Pacific Manager on their appointment and acknowledged the support of the Weather Ready Pacific to the Members. It was noted that multi-hazard early warning systems is important and needed to be included. The recommendations were welcomed by Papua New Guinea.

39. Overall, the session underscored the collective commitment to advancing the Weather Ready Pacific's goals, improving inclusivity, and ensuring that all stakeholders are actively engaged in moving forward.

8.2 Progress and Update on Early Warning for All (EW4All)

THE MEETING:

I. NOTED the progress with the implementation of the EW4All initiative in the Pacific region.

II. NOTED with appreciation the regional coordination between the EW4All initiative and Weather Ready Pacific programme, as well as national EW4All related initiatives.

III. ENCOURAGED ongoing coordination and alignment between the EW4All initiative and Weather Ready Pacific programme for joint programming and delivery.

IV. RECOMMENDED that integration of activities across all four pillars of MHEWS is included in the Weather Ready Pacific implementation plan, with consideration of Gender Equality, Disability and Social Inclusion (GEDSI).

V. REITERATED PMC-6's invitation to development partners to scale-up and coordinate investments in early warning systems across the Pacific.

40. WMO and UNDRR provided a comprehensive update on the Early Warning for All (EW4All) including activities undertaken to support the Pacific region and complement efforts with Weather Ready Pacific. It was noted that the EW4All initiative comprises the four foundational pillars of an early warning system (EWS):

a. Pillar 1: Disaster risk knowledge

Systematically collect risk data and undertake risk assessments on hazards and vulnerabilities to improve risk understanding (Global lead: UN Office for Disaster Risk Reduction (UNDRR)).

b. Pillar 2: Detection, observation, monitoring, analysis and forecasting of hazards

Develop hazard monitoring and early warning services (Global lead: World Meteorological Organization).

c. Pillar 3: Warning dissemination and communication

Communicate risk information so it reaches all those who need it and is understandable and usable (Global lead: International Telecommunications Union).

d. Pillar 4: Preparedness and response capabilities

Build national and community preparedness and response capabilities (Global lead: International Federation of Red Cross and Red Crescent Societies (IFRC)).

41. UNDRR noted that the activities and initiatives undertaken in the Pacific were extensive in improving early warning systems for various hazards, making them also more multi-hazard, end-to-end, people-centred and inclusive. Together with the coordination and financing provided by the Weather Ready Pacific programme, ongoing projects, and the support of EW4All pillar leads, these new projects will contribute to the overall objectives of the Weather Ready Pacific programme, EW4All initiative, and related policies and strategies in the Pacific.

8.3 Anticipatory Action Activities

THE MEETING:

I. NOTED the progress that has been in advancing anticipatory approaches to enable more effective early warning, early action across the Pacific.

II. CONFIRMED the importance of continuing to scale up awareness, capabilities and investment in Anticipatory Action in the Pacific.

III. RECOMMENDED that Weather Ready Pacific and other related early warning system initiatives in the region include anticipatory action as a key component in programme design and delivery.

40. UNDRR presented on Anticipatory Action (AA) which is an approach that translates warnings into actions to protect people and assets before a hazard develops into a disaster. People-centred and community-based early warnings and AA are key to achieving the outcomes of the Weather Ready Pacific as part of EW4All.

43. It was noted that Pacific Governments and their national and regional partners have been exploring opportunities to test anticipatory approaches at regional, national and local levels for a number of years. The focus on anticipatory action in the region has been reprioritised since 2023 with the hosting of the first Pacific Week of Anticipatory Action in Nadi, Fiji in March 2023 and with a follow up regional meeting held in Sigatoka, Fiji in April 2024.

44. Tonga noted that it is a cross cutting issue as AA is important in coordinating efforts when talking about EW4All and needs to be addressed properly. Hence the importance of connecting work of meaning and significance in this space, with the technical assistance needed.

45. Tuvalu highlighted the importance of AA and the partnership between Met Services and NDMO. While much work has been done together, it was shared that there is still a gap. It was hoped that Weather Ready Pacific will help address the issue particularly on finance, as financing is aways an issue, with slow onset systems. Tuvalu also highlighted the need to develop a National Framework on cyclones and droughts using AA to address gaps and are welcome to having further bilateral

discussions in preparation of when disaster strike.

46. In response to the last recommendation, Niue highlighted the importance of seeking support and investment of donors and development partners to scale up assistance for effective engagement on early warning systems, as there is never enough finance to facilitate community engagement.

8.4 Update Systematic Observation Financing Facility (SOFF)

THE MEETING:

I. NOTED the complementarity and need for close collaboration between Weather Ready Pacific and Systematic Observation Financing Facility and the importance of a coordinated approach to implementation of two long-term complimentary funding mechanisms, Systematic Observation Financing Facility and Weather Ready Pacific, in the Pacific region.

II. RECOMMENDED that the Weather Ready Pacific Project Management Unit and the Systematic Observation Financing Facility Secretariat develop a Memorandum of Understanding under the guidance of their Steering Committee chairs.

III. Further RECOMMENDED that the Memorandum of Understanding be signed by the chairs of the respective Steering Committees, with a vision to make a joint announcement at COP29.

47. It was noted that the Systematic Observation Financing Facility (SOFF) is a United Nations multi-trust fund that supports compliance with the Global Observing Network through the WMO Congress, which is mandatory for all countries to comply with. The financing facility is to help members achieve the mandate and is operated as a multi-partner trust fund, which implements through UN agencies.

48. On SOFF progress in the Pacific, it was noted that it has been operating for 2 years and that 14 Pacific island countries have received USD 33 million through the readiness and investment phase. Assistance provided through the support of Met offices through Australia, New Zealand and the United Kingdom, that have helped provide direct support and engagement with SOFF regional bodies and initiatives.

49. With respect to Weather Ready Pacific, it was noted that SOFF was complementary and long term investment to support Pacific countries and national priorities as outlined in the 2050 Strategy for the Blue Pacific Continent, specifically on Weather Ready Pacific and helping to operationalise EWA4All in the Pacific, administratively hosted by WMO.

50. An MOU is proposed to outline complementarity and how SOFF and Weather Ready Pacific will collaborate, with the intent it will be signed at COP29.

51. It was noted that they are both long term financing mechanisms and the importance of a coordinated approach to implementation within the context of the Pacific. It was proposed that the Weather Ready Pacific Management Unit and SOFF develop the MOU for the consideration of the respective Steering Committees and signed by the respective Chairs.

52. Solomon Islands noted that they are the first recipient of SOFF funding in the Pacific as a pilot country for the region. They updated the meeting that they are working with UNDP and are currently working on establishing the programme management unit for the implementation of

SOFF in the Solomon Islands. Solomon Islands expressed support for the recommendations.

53. Kiribati shared that they are also a recipient of SOFF support and progressing work with UNEP on funding and are still finalising the budget. It was noted that they are engaging a Bureau of Meteorology (BoM) adviser to be a technical adviser for procurement of meteorological equipment. Kiribati encouraged other Members to be involved particularly working towards the investment phase. It was noted that sorting out funding is not a problem, but to be sure of the modality to be used i.e. whether to leave for an agency to implement on your behalf or a mixed modality of funding.

54. The United States requested clarification on ocean observation and whether funding will be extended to this area by SOFF rather than only land observation, which was raised in respect of Global Basic Observing Network (GBON). SOFF responded that marine observations are a key topic and have been discussed in their meetings. It was noted that it will be funded under SOFF in the future, however they are awaiting detailed guidance on how to implement support for marine observation. SOFF noted that it is foreseen in the future and understand the importance in the Pacific.

8.5 Alignment of Weather Ready Pacific with Global Initiatives

THE MEETING:

I. NOTED on going opportunities to align Weather Ready Pacific and EW4All initiatives.

II. ACKNOWLEDGED the need to align global initiatives to Weather Ready Pacific to leverage financing of Weather Ready Pacific activities and for coordination of regional activities around EW4All.

III. APPROVED that such alignments/partnerships between global initiatives and financing facilities with Weather Ready Pacific for the delivery of EW4All be formalised.

IV. APPROVED that authorisation and management of such agreements/MOUs be the responsibility of the Weather Ready Pacific Steering Committee.

V. INVITED other interested partners/countries to invest in the Weather Ready Pacific as the regional mechanism to deliver EW4All.

55. The Secretariat highlighted the importance of global initiatives aligning with Weather Ready Pacific in order to meet the EW4All commitments. It was noted that any alignments or partnerships between global initiatives and financing facilities with Weather Ready Pacific for the delivery of EW4All, be formalised once it is approved by the Weather Ready Pacific Steering Committee.

56. It was also noted the importance of inviting other interested partners and countries to invest in the Weather Ready Pacific as the regional mechanism to deliver EW4All.

57. Tonga acknowledged the updates and recommendations. With respect to the recommendation, Tonga emphasised the importance of alignment and encouraged potential donors to invest in Weather Ready Pacific as the Pacific vehicle for EW4All. Tonga fully supported the

recommendation on alignment and formulation of agreements. It was also highlighted that Weather Ready Pacific should be recognised as an implementing partner in delivery of EW4All in the region with other agencies, to enhance better coordination.

58. Kiribati noted the update provided and acknowledged the role of Weather Ready Pacific. Kiribati expressed support for the recommendations, especially alignment to promote coordination to meet national needs. However, Kiribati noted that this alignment should not deter Weather Ready Pacific from raising the Weather Ready Pacific funding that has already been agreed upon. Kiribati also encouraged SPREP and other partners to continue promoting resource mobilisation.

59. Niue expressed support for the recommendation but sought clarification regarding the last sentence on countries *"whether it means PMC countries or inclusive of countries not in PMC".* Niue also suggested that the recommendation be refined to state that any alignment is first brought to the Steering Committee for approval before an MOU or MOA is signed.

60. The Secretariat reaffirmed the recommendations, that for any alignment the Weather Ready Pacific Steering Committee will need to first assess the matter before making their decision on the alignment.

61. The Cook Islands acknowledged the recommendations and emphasised that some countries might not be able to access SOFF, hence why Weather Ready Pacific is very important. Cook Islands encouraged partners to invest in Weather Ready Pacific as part of EW4All noting 80 percent of the Weather Ready Pacific financing remains unfunded.

62. The Chair thanked all Members for their interventions and welcomed the Secretariat to consider all comments received and to consider refinement of the recommendation as pointed out by Niue.

AGENDA ITEM 9. Pacific Island Aviation Weather Services (PIAWS)

9.1 Progress and Updates of Pacific Island Aviation Weather Services (PIAWS) Panel Activities

THE MEETING:

I. NOTED the activities of the Pacific Island Aviation Weather Services (PIAWS) Panel and express appreciation to the outgoing Chair, 'Ofa Fa'anunu (Tonga) for his leadership of the Panel.

II. NOTED Levu Antfalo (Vanuatu) and Laitia Fifita (Tonga) as the new co-Chairs of the PIAWS Panel, and Paula Acethorp (New Zealand) as continuing vice-Chair.

III. ENDORSED the continued activities of the PIAWS Panel and the revised ToR as presented in Attachment A.

IV. ENCOURAGED States to ensure QMS principles are embedded within projects to improve the provision of aviation meteorology.

V. RECOMMENDED Fiji and the relevant States finalise the service level agreements for the provision of aeronautical meteorology as soon as possible.

VI. RECOMMENDED the PMC to consider the request for additional members for the Expert Team on WMO-IATA Collaborative AMDAR Programme (ET-WICAP), nominating any new members directly to Mr Doug Body, Australia.

VII. REQUESTED assistance for Pacific States to investigate cost recovery for aviation services via air navigation charges.

63. An overview of the activities of the Pacific Island Aviation Weather Services (PIAWS) Panel since the Sixth Meeting of the Pacific Meteorology Council (PMC-6) was provided. The presentation also included the need for continued support for Pacific island meteorological services in the development and improvement of their quality management systems (QMS) and for those who require Part 174 aviation meteorology certification assistance in Part 174 certification activities, including the development and improvement of a safety management system (SMS).

64. It was noted that the only Pacific island designated in the ICAO APAC air navigation plan to provide Volcano Observatory Notice for Aviation (VONA) is Papua New Guinea, with an update underway to include Hawai'i Volcano Observatory for Northern Mariana Islands and American Samoa. It was also shared that Pacific States with active or potentially active volcanoes should ensure their CAA coordinates with their volcano observatories to request an update to the ICAO APAC air navigation plan list of designated SVOs.

65. It was noted there remains a strong need for assistance in both QMS and SMS development and ongoing improvement. The excellent work undertaken by the Bureau of Meteorology in coordination with Kiribati, Papua New Guinea and Samoa has been very much appreciated by the PIAWS Panel, with a strong desire to see the activities extended to other Pacific States.

66. QMS is an ICAO Annex 3 requirement, that is required by all Pacific States providing a service to international aviation. It is also a necessary building block in the journey to an effective SMS, which is a requirement for Pacific States that have adopted the New Zealand Part 174 civil aviation rule. It was noted that the PIAWS Panel proposes that any new project undertaken in the Pacific should have a requirement for a QMS approach for its undertaking.

9.2 International Civil Aviation Organization (ICAO) Monitoring of Pacific Operational Meteorological (OPMET) Data

THE MEETING:

I. NOTED the higher thresholds (now 0.95) being applied to annual OPMET monitoring activity results for potential deficiency identification.

II. ENCOURAGED States to consider future proofing their observation and forecast systems to ensure the ability to comply with ICAO provisions and to meet current and future requirements for international aviation.

III. REQUESTED assistance for Pacific Island States' NMHSs to ensure METAR and TAF procedures and tools promote the issuance of Annex 3 compliant products.

67. The Vice-Chair of PIAWS presented the update which focused on METAR reports and the aviation information menu. The purpose was to review progress and effectiveness. Annually, in November, METAR reports are assessed against a 95 percent threshold. Regional scores are generally excellent, especially from the Pacific region. However, Funafuti did not receive a TAF score, which will need addressing next year.

68. The update sought guidance to assist Pacific Island States to address and improve the provision of ICAO compliant OPMET data to ensure successful IWXXM translation.

69. Several issues were identified, including typographical errors, missing elements, and incorrect formatting in METAR reports. The presentation also highlighted the locations of Regional OPMET Centres responsible for managing aviation data.

70. It was noted that a new aerodrome observation information service will be introduced into Annex 3 from late 2027, which will be provided in IWXXM format only (no 'human readable' version will be provided). More information on this will be shared, once available, within the PIAWS Panel and with the PMC in due course.

9.3 Space Weather – Overview and Potential Impacts

THE MEETING:

I. NOTED the risk to transport and public infrastructure operations posed by significant space weather events.

II. ENCOURAGED the sharing of information on space weather with relevant government organisations for effective planning for extreme space weather impacts.

71. The presentation provided an overview of space weather and its potential impacts, as well as space weather forecast and warning information sources available, including the ICAO space weather advisories for aviation.

72. Key areas identified included capacity building for Pacific island meteorological services in building understanding of space weather. Also review of the suitability of the density of the observation network across the Pacific for geomagnetic monitoring, and how that data is shared globally.

9.4 Gaps preventing full certification of Part 174 Aviation Met Service

THE MEETING:

I. NOTED the recurring deficiencies in the meteorological service organisations which are common challenges for all organisations.

II. RECOMMENDED that the issues raised via audits and other reporting shall be addressed as soon as practicable as it could pose risk to aviation safety, with appropriate corrective action plans to be developed by States.

III. ENDORSED the establishment of a PIAWS Panel Task Team to develop a roadmap for the provision of best practice aviation services in the Pacific region, including awareness of the requirements of Civil Aviation Rule Part 174.

IV. REQUESTED that regional institutions and/or development partners develop and make available training to all Pacific Island meteorological services on quality management systems, safety management systems, risk management, root cause analysis, internal auditor trainings, quality tools and competency-based assessments to be made accessible to staff. This should include an element of 'train the trainer', to ensure that the knowledge and skills can continue to be shared within each organisation.

V. TASKED the PIAWS Panel Task Team for QMS to develop a forum or similar for Pacific Island meteorological services more advanced in QMS to share their QMS best practices.

VI. TASKED the PIAWS Panel Task Team for QMS to explore options for online platforms for occurrence reports and corrective action development for the Pacific region.

VII. REQUESTED assistance to ensure aviation meteorological personnel providing aviation weather service to undergo relevant basic instructions package training for Meteorologists and Technicians (observer)

VIII. REQUESTED training for instrument technicians to be able to maintain and repair, as appropriate, local observing instrumentation

73. Pacific Aviation Safety Office (PASO) informed the meeting of the gaps within meteorological service organisations that are hindering certification under Civil Aviation Rule Part 174. The presentation sought guidance on how to assist Pacific islands in addressing these gaps and to highlight the necessary training staff must undergo to effectively perform the duties of a Meteorologist, Meteorological Technician (observer), observing infrastructure technicians, quality manager and safety management systems officer.

74. Meteorological service organisations from States that have adopted the New Zealand Civil Aviation Rules are required to be certificated under Part 174, if they are providing a service to aviation which prescribes:

a. Rules governing the certification and operation of organisations providing meteorological service for aviation; and

b. Requirements governing the provision of basic weather reports for aviation

75. PASO shared key observations across many meteorological service providers, including:

a. Inadequate understanding of the Civil Aviation Rule part 174 requirements.

b. Development of manuals for Part 174 Exposition, quality and safety management systems.

c. Maintaining an effective quality assurance system, including:

i. Monitoring, identifying, recording, investigation and rectifying non-conforming products and equipment malfunctions

ii. Performance analysis and evaluation

iii. Product verifications

iv. Customer engagement and feedback analysis

v. Conducting Internal Audits

vi. Conducting management review meeting

a. Trainings on basic instruction package for Meteorologist and Meteorological technicians (observers).

b. Trainings on quality and safety management systems and competency-based assessment.

c. Irregular station inspections and un-availability of automatic weather observing systems spares.

d. Upskilling observing infrastructure technicians to install, maintain and repair meteorological instruments and observing systems.

76. PASO suggested support to address the gaps, may be in the form of training programmes on quality and safety management systems, aimed at developing and enhancing skills to ensure fully operational management systems. The success of such training programmes has been demonstrated through the support of the Bureau of Meteorology (BoM) in assisting Kiribati, Papua New Guinea, and Samoa as discussed in Agenda 9.1, and there is a need for this work to be extended to more States.

AGENDA ITEM 10. Pacific Island Climate Services

10.1 Pacific Island Climate Services (PICS) Progress and Updates

THE MEETING:

I. ACKNOWLEDGED 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.

II. NOTED 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.

III. REQUESTED 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.

IV. REQUESTED the PMC and observers support and encourage their representatives on the panel to regularly participate in future PICS panel meetings.

V. REQUESTED the PMC seek funding to support on-going Pacific Met. Desk PICS panel secretariat functions, activities and face-to-face meetings.

VI. REQUESTED 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.

VII. NOTED 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.

77. The PICS Panel Chair (Australia) summarised the key updates and priorities of the PICS Panel that have been ongoing since the last PMC-6.

78. Concern was expressed regarding PICOFs, specifically, the time of release of statements, requesting to review the PICOF dates and their frequency each year.

79. The PICS Panel Chair further highlighted the need to focus on artificial intelligence and machine learning for climate services in the Pacific. It was noted that a team will be researching this and placing it on the climate website.

10.2 Updated Pacific Roadmap for Strengthening Climate Services 2024–2033

THE MEETING:

I. NOTED the updated Pacific Roadmap for Strengthened Climate Services (2024-2033);

II. ENDORSED the Pacific Roadmap for Strengthened Climate Services (2024-2033); and

III. REQUESTED the NMHSs', technical and donor partners to support the implementation of actions including the monitoring and evaluation of performance indicators of the updated roadmap.

80. The SPREP Secretariat provided an update on the review of the Pacific Roadmap for Strengthened Climate Services (2017-2026) and its implementation plan, including the development of an associated Monitoring and Evaluation Framework.

81. The Secretariat:

- **a.** Highlighted that the new Roadmap is Pacific-focused, aligned to the specific needs and priorities of the region.
- **b.** Acknowledged the consultant engaged to review the Roadmap, and the ClimSA project which funded the work of the update and other external partners who assisted the process.
- **c.** Highlighted the position of the Roadmap within the international frameworks and strategies that encompass the region, specifically the Global Framework for Climate Services and Pacific Island Meteorology Strategy (2017-2026).
- **d.** Acknowledged the achievements of the climate services of the PMC-7 members over the years, expressing its appreciation to the members for their efforts in growing and developing their climate services, ensuring their communications reach all levels of people, from governments, down to communities in the outer islands.
- **e.** Highlighted the sustainability of regional and national climate forums over the last ten years.

82. The Cook Islands, Fiji, and Tonga supported and endorsed the recommendations and the Pacific Roadmap for Strengthened Climate Services.

83. Fiji and Tonga expressed appreciation for the Secretariat's support in developing the PRSCS, acknowledging the significant work done to establish the new Roadmap.

84. Tonga recommended that other PMC panels develop roadmaps, and implementation plans to promote structured, organised, and coordinated contributions in the region, as has been demonstrated by the PICS panel, endorsing that this should be the strategy for monitoring and aligning all future activities.

85. Tonga further recommended that monitoring procedures and mechanisms be included within the Roadmap, such as key performance indicators, to endorse accountability and measure the progress of the Roadmap. Tonga highlighted that this would prevent longstanding matters from previous PMCs being forgotten and allow them to be adequately addressed.

86. Niue requested that the Roadmap be made available to everyone. The Secretariat advised Niue that a copy of the Roadmap can be found online and has been included as an annex to the working paper.

87. The Chair invited and requested the drafting committee to consider Tonga's recommendations.

10.3 Regional Climate Project CIS-5

THE MEETING:

I. NOTED the achievements and leadership of the five countries in the delivery and implementation of climate information services.

II. NOTED the Mid Term Evaluation Recommendations to inform existing and new programmes and seek collective engagement in the stock take exercise for the countries.

III. REQUESTED strengthened collaboration between UNEP CIS-Pac5, Weather Ready Pacific and all other programmes for accessibility, streamlining and sustainability of UNEP CIS-Pac5 tools, systems, equipment and maintenance.

IV. REQUESTED for regional partners and pipeline programmes for more communication and information sharing on regional coordination to align with existing programmes and continuation of support to the countries.

V. REQUESTED Regional Technical Partners to engage closely with the countries on activities, priorities for implementation and coordination.

88. It was noted by UNEP that CIS-Pac5 has made significant progress since its initiation, including developing strategic governance frameworks, installing equipment, and conducting trainings and community outreach. The Mid Term Evaluation rated the programme as “Satisfactory” and highlighted a need for the detailed review of activities to ensure full implementation by September 2026.

89. It was noted that CIS-Pac5 was approved in 2019 and aligned with EW4All, the Pacific Meteorological Strategy, and the Weather Ready Pacific initiative.

90. The leadership and support of the five participating countries and their ownership of the programme was acknowledged. The eight regional technical partners of APEC Climate Centre (APCC), BOM, East West Centre, Pacific Community (SPC), National Institute of Water and Atmospheric Research (NIWA), Pacific Islands Ocean Observing System (PacIOOS), and University of Hawaii were acknowledged for their technical support.

91. In terms of coordination and lessons learned it was emphasised that alignment with existing initiatives was important to avoid duplication. VanKIRAP’s lessons learned helped guide interactions with the Green Climate Fund (GCF) and helped strengthen meteorological services.

92. The programme results of CIS-Pac5 noted as follows:

- **a.** National frameworks, National Climate Outlook Forums (NCOFs), meteorological strategies, training, and risk assessments.
- **b.** Enhanced observations with training on Pacific Island Countries Advanced Seasonal Outlook (PICASO), Australian Community Climate Earth System Simulators-Seasonal (ACCESS-S), automated weather station (AWS), and radars to name a few.
- **c.** Community engagement, translating scientific data, incorporating traditional knowledge, and gender studies.
- **d.** Regional knowledge management and lessons learned from VanKIRAP.

93. The Cook Islands endorsed the recommendations and acknowledged the project efforts on the ground.

94. Tuvalu expressed appreciation for the project progress and technical support from all technical partners.

95. Niue noted the improved community engagement and thanked all of the partners involved. It was noted that Niue remains interested in future strengthening beyond the project timeframe.

96. The Chair thanked UNEP for the presentation.

10.4 Pacific Regional Climate Centre Network Update

THE MEETING:

I. ACKNOWLEDGED the ongoing work of the WMO Pacific Regional Climate Centre Network (RCC-N), which delivers enhanced regional climate products and services and strengthens NMHS capacity to meet national climate information and service delivery needs;

II. REQUESTED BOM, NIWA, NOAA, University of Hawaii, CSIRO, APCC, SPC, SPREP, Meteo-France, United States Geological Survey (USGS) and University of Papua New Guinea as members of the Pacific RCC-N to note past pledges to support the functions of the Pacific RCC-N and ensure they continue to deliver core and where possible highly recommended functions ideally with programmatic/sustained resources;

III. REQUESTED the PMC endorse the revised and improved Pacific RCC-N Management Committee ToR;

IV. REQUESTED the PMC promote the allocation of resources via national and regional projects with the aim to identify, refurbish, maintain and enhance meteorological observations from long-lived observation stations which are essential for the delivery of operational climate services and research;

V. REQUESTED PMC members and observers to increase data sharing at national, regional and international levels (e.g. GTS/WIS) and request appropriate regional technical partners and organisations support NMHSs with this task with the aim of better understanding weather and climate in region, reducing vulnerability to weather, climate and ocean extremes and increase economic development;

VI. REQUESTED PMC members and observers consider the benefits of long-lived observation stations being classed WMO 'Centennial Observing Stations' and apply for designation as soon as possible;

VII. REQUESTED the PMC approve the establishment of Regional (and National) Climate Reference Station Networks that safeguard existing long-term climate stations in addition to ensuring that all countries and territories have at least one Pacific Regional Climate Reference Station in their network;

VII. NOTED progress with reference to the application for RCC-N designation. The new Pacific RCC-N logo is available and work on the new website has commenced and will be completed as soon as possible. The designation application will be submitted to WMO as soon as possible, with designation ideally obtained before PMC-8; and

IX. NOTED Pacific Islands Climate Outlook Forum (PICOF) amendments which aim to include regional level climate-sensitive sector representatives in future PICOFs, to better identify potential impacts in the coming season and identify response strategies to potential impacts. This will be followed by regional sectorial experts supporting national representatives with preparations for the coming season.

97. The PICS Panel Chair (Australia) presented an overview of the WMO RA-V Pacific Regional Climate Centre Network (RCC-N) and its organisational structure and function, highlighting its role in assisting Pacific Island National Meteorological and Hydrological Services (NMHSs) to deliver climate products and services and to strengthen capacity to meet national climate service needs.

98. The PICS Panel Chair provided a comprehensive progress update for the WMO RA-V Pacific RCC-N. The update highlighted the:

- **a.** Amendments to the Pacific RCC-N Terms of Reference, including the creation of a Vice-Chair role, the change of the Node for Climate Change Projections to the Node for Climate Change, Node membership changes that have occurred, and the clarification of membership and leadership requirements.
- **b.** Review of the Pacific RCC-N by WMO and ClimSA consultant Dr Rupa Kumar Kolli, who produced a report called "Pacific Regional Climate Centre Network" Current Status and Way Forward" in December 2023.
- **c.** Development of the website for the WMO RA-V Pacific RCC-N, which has just begun.
- **d.** WMO RA-V Pacific RCC-N designation application is partly drafted but is awaiting the full development of the website as a product delivery tool before completion.
- **e.** New logo for the WMO RA-V Pacific RCC-N, presented in Annex 3 of the working paper.
- **f.** Major change for the Pacific Islands Climate Outlook Forum (PICOF), amending Day-2 stakeholder engagement from single-theme sector engagement with national stakeholders to multi-sector engagement with regional representatives.
- **g.** Paper from the Node on Operational Data Services (led by NIWA) highlighting the decline in the quality and quantity of long-lived meteorological stations in the region. The paper emphasised the importance of these stations, the issues that have led to degradation, and recommendations for remediation.
- **h.** Importance of PMC-7 members applying for designation as a WMO Centennial Observation Station. It was noted that the WMO's mechanism for recognising centennial observing stations to promote sustainable observational standards and best practices for longevity and high-quality data. The PICS Panel Chair noted that designation does not come with monetary benefits but comes with a special observation status that may protect the members' observation stations for longevity.

99. The Cook Islands, Kiribati, Samoa and Solomon Islands acknowledged the support from partners, and especially the contributions of Australia and NIWA, towards establishing and recognising the WMO RA-V Pacific RCC-N.

100. Solomon Islands requested clarification on when the website will be completed, noting its importance for the upcoming tropical cyclone season. The PICS Panel Chair responded to Solomon Islands advising that it aims for the availability of content before the tropical cyclone season but cannot affirm the website's completion by its commencement.

101. Kiribati supported the recommendations and highlighted the importance of designating WMO Centennial Observation Stations for the region and having resources to support their sustainability and longevity.

102. Samoa noted the importance of acknowledging the gaps and challenges the region faces regarding meteorological observations. It highlighted that the region is always looking for solutions for ensuring sustainability of observation equipment, as only a few Pacific countries have up to 100 years of observation data, and most Pacific countries have gaps within their observational data, making external research and partnerships that rely on such data challenging. Samoa requested that partners in the room acknowledge and respond to these challenges to support coordination within the region.

103. The Cook Islands expressed support for the development of the new website and were grateful to BOM and NIWA.

104. Solomon Islands acknowledged ClimSA and SPREP's support in establishing the WMO RA-V Pacific RCC-N. Solomon Islands also acknowledged the support from NIWA.

105. New Zealand endorsed the recommendations.

10.5 Vanuatu Infomesen blong redy, adapt mo protekt (VanKIRAP)

THE MEETING:

I. NOTED the update and the significant progress made by the Vanuatu Infomesen blong redy, adapt mo protekt (VanKIRAP) project.

II. ACKNOWLEDGED the leadership demonstrated by the Vanuatu Meteorology and Geohazards Department and delivery partners for their work in the implementation of the VanKIRAP project and outcomes.

III. RECOMMENDED that the project lessons learnt and cutting-edge CIS tools developed for Vanuatu can be replicated and upscaled in a VanKIRAP Phase 2 under the One Pacific Programme (OPP) to benefit other NMHSs.

106. The VanKIRAP, Project Manager from the Vanuatu Meteorology and Geo-hazards Department (VGMD) provided a comprehensive update on the activities, progress and achievements of the Vanuatu Climate Information Services for Resilient Development Planning (VanKIRAP) project.

107. It was noted that the VanKIRAP project is a USD 18 million Government of Vanuatu initiative, funded by the GCF through SPREP as the accredited entity. The project implementation is led by the VMGD with support from SPREP, APCC, CSIRO and BOM. The project lifespan is from 2018 to 2025 and uses science to better prepare Vanuatu's policy makers and local communities in the last mile for a changing climate.

AGENDA ITEM 11. Coordination of Multi-Hazard Early Warning System, Services and activities

11.1 Progress and Way forward on Coordinating MHEWS

THE MEETING:

I. RECOMMENDED SPREP through the Weather Ready Pacific Programme convene a meeting with SPC, UNDRR, WMO, International Federation of Red Cross and Red Crescent (IFRC), International Telecommunication Union (ITU) and other relevant EW4All partners on how the Pacific can better coordinate work around MHEWS to support Member Countries and Territories, as soon as possible.

108. The SPREP Secretariat presented an update on the coordination of MHEWS. References to the PIMS (priority 2, PK 4) were made, which speaks to the MHEWS and how this will be approached. The earlier AA presentation and the activity to develop agreements, and how MOUs can be made effective, were also acknowledged.

109. It was noted that there are 5 panels in the priority areas of the PIMS, but there is no panel on MHEWS. Discussions have been underway with SPC to explore opportunities through the Pacific Resilience Partnership or other mechanisms.

110. The SPREP Secretariat reminded delegates about the Joint NDMO and NMHS meeting held in 2023, followed by the AA meeting in 2024. It was noted as a liaison platform under Weather Ready Pacific, which brings together all partners who are not necessarily linked to Weather Ready Pacific but have common goals to achieve similar outcomes.

111. It was noted that coordination and alignment on MHEWS can be done better as MHEWS is not something that SPREP and SPC can implement in isolation, it is something that all partners can and should support.

112. Tonga thanked SPREP for the presentation of the paper and expressed support for the recommendation based on the reasons that the alignment and establishment of the MHEWS panel is needed. It was emphasised that the coordination should be reinforced.

113. The Cook Islands endorsed and supported the recommendations.

114. Solomon Islands expressed support for the recommendations but wanted it implemented as soon as possible. It was noted that EW4All had started at the national level, but the coordination at regional level is lacking. It was noted that regional agencies have been invited, but there has not been engagement. Solomon Islands conveyed appreciation to ITU, UNDRR and WMO for their national level participation.

115. Papua New Guinea noted full support for the recommendation regarding MHEWS.

116. Kiribati thanked the team who had been working on the initiative and endorsed the recommendations.

11.2 Enabling Children and Youth, Climate Change and Disaster Preparedness through MHEWS and DRR Education

THE MEETING:

I. ACKNOWLEDGED the increasing need to improve children's awareness and involvement in weather, climate, water, disaster risk reduction and related environmental action;

II. NOTED the outreach activities of the COPE initiative;

III. REAFFIRMED the COPE initiative as an effective vehicle to integrate multi-hazard early warning and disaster risk reduction into education systems and other platforms;

IV. RECOGNISED with appreciation the initial support by Weather Ready Pacific for the translation of the COPE Series to the official languages of a number of Pacific Countries;

V. SUPPORTED the translation of the COPE Series to all Pacific languages and the development of risk education programmes for schools in the Pacific through Pacific funding modalities such as Weather Ready Pacific.

117. WMO provided an update on the recent activities in developing the capacities of children to climate change and disaster risk reduction through the COPE initiative. Statistics were presented on the number of children impacted by disasters.

118. Tonga presented updates on the COPE initiative and highlighted the launch of the booklet by the UN Secretary General at the 53rd Pacific Islands Forum Leaders Meeting recently held in Tonga. It was noted that there are gaps in the region when it comes to awareness on this issue. The leadership of Tonga was acknowledged.

119. WMO presented global updates and highlighted the gaps and challenges in trying to implement the regional activities to try to build the Pacific SIDS resilience amongst children.

120. Kiribati thanked the presenter for the informative presentation and reminder. Kiribati expressed support for the recommendations.

121. Tonga endorsed and supported the recommendations. The collaboration with WMO was acknowledged that enabled the launch of the COPE books in Tonga. Tonga emphasised the importance of bringing in the Ministry of Education at the national level. This was highlighted as they have the access point to help mainstream the initiative into the local curriculum and education system. It was also noted that translated books will reach the primary schools in the remote regions.

122. Samoa expressed support for the recommendations and sought clarity on the reference in the recommendation about the term 'of a number of Pacific Countries' and not mentioning 'all Pacific countries' as it is aligned to the Weather Ready Pacific activities.

123. The Weather Ready Pacific Programme Manager acknowledged the question from Samoa and responded that Weather Ready Pacific is initially conducting these activities with pilot countries. It was noted as a valid point to raise during the Weather Ready Pacific Steering Committee Meeting on 20 September 2024.

124. The Cook Islands endorsed and supported the recommendations and noted the statistics shared. The Cook Islands highlighted the importance of social media and engaging youth to promote MHEWS.

125. Niue expressed support for the recommendations and acknowledged the role of arts and cultural performances, such as FestPac, the 13th Festival of Pacific Arts and Culture hosted in Hawai'i, 2024, in helping to engage youth. It was suggested to use existing resources developed by other projects in the region, in addition to the COPE series.

126. American Samoa endorsed and supported the recommendations. It was requested that Recommendation # 3, should be expanded to other educational platforms such as libraries, as mentioned earlier by the Cook Islands, to reach more youth.

127. The SPREP Secretariat shared the Pacific Climate Change Portal is a hub for learning resources, including learning material for executives, professionals and children, which may also be used. It was also noted by the SPREP Secretariat the importance of printing the documents to enable easier access to the stories.

128. New Zealand acknowledged that the books influenced behaviours of both children and parents.

129. Cook Islands congratulated Samoa on the development of the Teacher's Kit Pack, developed to reaffirm the COPE series. It was noted that the same package has been shared by the Cook Islands to Niue for their adaption and use.

11.3 Embracing Business Continuity for effective MHEWS

THE MEETING:

I. RECOGNISED the importance of embracing business continuity;

II. ACKNOWLEDGED the existing Business Continuity Management Guidelines developed by WMO for PMC Members to exercise and practice; and

III. ENDORSED the recommendation of developing region-specific business continuity guidance and tools for Members through Pacific funding modalities such as Weather Ready Pacific.

130. WMO provided an update on the need to adopt the business continuity management guidelines for WMO, where the presentation highlighted challenges faced to adopt business continuity management.

131. WMO acknowledged that plans on paper can be sophisticated, however, it needs to work practically also. Highlighted the security impacts on people and on economic well-being. It was noted that the WMO Executive Council have developed business continuity guidelines and acknowledged that the Pacific has its specificities, which gives rise to the recommendations presented, to ensure that the business continuity plans are relevant and suited to the Pacific.

132. Palau acknowledged the recommendations and requested that with respect to Recommendation # 2 that it be extended to PMC Members, as not all are WMO Members. The key issue of inclusiveness was highlighted and to ensure that no one was left behind.

133. WMO agreed with the suggestion from Palau and that it also be amended to include the role of WMO in the development of the Business Continuity Guidelines. WMO highlighted that the guidelines exist in the region and that support is available.

134. New Zealand also endorsed the recommendations, and the comments from WMO for having a plan and practice, that needs to be reiterated. It was suggested that the recommendation be strengthened to reflect this.

AGENDA ITEM 12. Hydrology and Flood Warning Services

12.1 Progress and Updates

THE MEETING:

I. NOTED the works and progress of the Pacific Hydrology Services (PHS) Panel.

II. NOTED the hydrology related regional projects currently under implementation and pipeline projects.

III. NOTED the need to support the continued cooperation, coordination and approach between regional and international bodies, national government agencies, and civil society organisations to develop and implement regional initiatives related to hydrology and meteorology; and

IV. ENCOURAGED alignment of the national and regional initiatives related to hydrology and meteorology with the Weather Ready Pacific and 2050 Strategy for the Blue Pacific Continent.

135. Tonga as the Chair provided an update on the progress of the Pacific Hydrology Services (PHS) Panel, including the regional initiatives related to hydrology data and services including flood and drought warning and management; and the Hydrology Forum proposed for November 2024.

136. The PHS Panel Chair acknowledged the calls from PMC-7 members to improve hydrological services and reiterated that this is reflected within the Pacific Island Meteorological Strategy (2017-2026).

137. It was announced that the first Hydrological Outlook Forum occurred in July 2024 in Nadi, Fiji, with participation from six countries. There were also additional WMO USAID Projects Flash Flood Guidance System (FFGS) and Early Warning System for Floods (EWS-F) projects inception workshops taking place in July 2024, Nadi, Fiji.

138. The PHS Panel Chair advised that SPC, NIWA, and Pacific island countries and territories are assessing hydrological database options suitable for the regional setting. They are doing so in various stages, including identifying requirements of Pacific hydrology database needs, comparing hydrological database options to the identified minimum requirements, and reporting, evaluating, and recommending database options.

139. The PHS Panel Chair highlighted several ongoing and planned initiatives for hydrology within the region by numerous partners and donors. Of these, some notable projects include the 'Managing Water Scarcity through Strengthened Water Resources Management', an SPC project funded by New Zealand Ministry Foreign Affairs and Trade, and the technical support in hydrology to enhance flood early warning systems of the SPC project funded by the Australian Water Partnership.

140. The Cook Islands, Fiji, Kiribati, Palau, Papua New Guinea, and Tonga expressed their appreciation to the PHS Panel and supported and endorsed the recommendations.

141. Kiribati noted that the Managing Water Scarcity through Strengthened Water Resources Management project is not progressing well in its country, with no progress on activities shared under the project after three years. Kiribati requested that the implementing partners and donors be more proactive regarding the agreed-upon activities put forward by the PMC-7 members.

142. Palau recommended that the north Pacific be included for hydrology projects, particularly given that for the north Pacific, hydrological services often exist within the meteorological services, and not as a separate service. Palau requested that it not be left behind regarding hydrology progress in the region.

143. The PHS Panel Chair highlighted that the Managing Water Scarcity through Strengthened Water Resources Management project is in continuation and will be including other countries in its next phases. It advised that the issue of the project not reaching all countries was raised during the pre-PMC panel meeting. The PHS Panel Chair requested further discussion with SPC on the project and recommended that the equal sharing of benefits for hydrology be shared between all PMC-7 countries.

144. Palau endorsed the PHS Panel Chair's response for equal benefit sharing so that opportunities can be made available for all Pacific island countries. It recommended that the 'Hydrology Sections' be replaced by 'Hydrology Services' in the name of the PHS Panel to reflect the joint nature of some of the hydrological and meteorological services within the region and allow the inclusion of hydrology departments within the meteorological services of the north Pacific in hydrology projects.

145. The Chair requested that SPC and the PHS Panel work with the Secretariat on Palau's recommendations.

146. Tonga recommended that the final recommendation encouraging alignment of regional initiatives also include the alignment of national initiatives. It advised that both should be reflected within the PHS's activities. Tonga highlighted the importance of having a roadmap for the panels and that the inclusion of both regional and national activities should comprise a basic component of each roadmap. Tonga noted that doing so would also assist with coordination for donors and partners, highlighting a key gap that donor support and investments are not well managed or coordinated into existing frameworks in the region. It recommended that donor investments should be coordinated into existing frameworks before being implemented nationally.

147. Papua New Guinea expressed its appreciation to WMO for its ongoing assistance. It recommended that the PHS Panel consider distinguishing between hydrology and water resource management, noting that they are distinct operations. It noted that as Ministers manage multiple roles in different countries, it is challenging to make hydrology a permanent service and recommended that it subsequently be incorporated into meteorological services.

148. Papua New Guinea further requested that under recommendation three, support to meteorology and hydrology be shared equally, and, under recommendation four, recommended having collective processes and outcomes for meteorological and hydrological regional projects.

149. Fiji expressed gratitude towards the United States for its support of the Weather Ready Nation strategy and emergency management plans for flood adaptation, highlighting that it is work that is developing and building the meteorology and hydrology sector.

12.2 Regional Hydrological Strategy Review

THE MEETING:

I. ACKNOWLEDGED that the selected Pacific island countries and territories involved in the co-development for the Hydrology Action Plan for improved hydrological services to enhance flood early warning in selected Pacific island countries and territories recognise the utility and proof of concept of the approach to potentially progress regionally to address challenges faced by hydrological services.

II. RECOMMENDED SPC lead on the development of a regional and national hydrological strategy to improve hydrological services for both surface water and groundwater to increase climate resilience and support national development goals.

150. The PHS Panel Chair informed the meeting of the development of a Hydrology Action Plan for improved hydrological services to enhance flood early warning in selected Pacific island countries and territories.

151. It was noted the importance of garnering support for the development of the regional strategy to improve hydrological services for surface water and groundwater to increase climate resilience and support national development goals.

152. The PHS Panel Chair highlighted the strategy to support surface water hydrological services, and strategy to support ground water hydrological services and noted the regional dialogue for water security to be aligned with the 2050 Strategy for the Blue Pacific Continent.

153. Tonga endorsed and supported the recommendations put forward for the strategy and tasked SPC to lead the development of the regional and hydrology strategy. It was noted in some countries hydrological services are housed in different ministries and it is important to reflect this in the review, in terms of the governance and legal framework policy side of countries.

154. Palau asked a question on the focus on flood warnings for rivers as in Palau most flooding is on the roadside or canals, and it is important for Palau to include flood early warnings relevant to its context.

155. The Cook Islands endorsed the recommendations, and also noted the proposal by Tonga as it shares the same situation for the Cook Islands where there are two departments of hydrology with the department on the main island and government entity in the outer islands. The Cook Islands also endorsed the strategy and encouraged partners to support it as well.

156. Solomon Islands expressed support for the recommendations and are exploring the institutional arrangements and discussing it with ministries for flood warnings to move to the Met Services and Ministry of Environment. It was noted that nationally they have agreed to the importance of flood warnings. Solomon Islands also thanked the United States for the funding support of the flash flood guidance, which helps contribute to the EW4All.

157. Samoa supported the recommendations and all the working partners for the hydrology work in Samoa. It was noted that they share the same challenges, as they house hydrology, meteorology and DMO under different ministries and it is important to capture this in the framework.

158. Papua New Guinea acknowledged the work of SPC and WMO within the region and commended the work in sectors and policies.

159. SPC noted that the strategy will have a broader view for supporting hydrological services in general.

AGENDA ITEM 13. Pacific Island Training, Education and Research

13.1 Progress and Updates

THE MEETING:

I. NOTED the progress made by the PIETR Panel in the implementation of the Pacific Islands Meteorological Services Strategy 2017-2026 - Key Outcome 9 and its reviewed and updated Terms of Reference.

II. ACKNOWLEDGED the contribution of partners in the implementation of PIETR related activities.

III. ENCOURAGED members to assist with the coordination and implementation of weather, climate, climate change, hydrological and oceans related to education, training and research to better highlight progress to date.

IV. RECOMMENDED a regional training needs assessment to inform the Pacific regional capacity development plan and to support future training and research activities.

V. ENCOURAGED donors and partners to support for new and existing initiatives.

160. The PIETR Panel Chair (United States) commended the PMC-7 members and partners for their work and support implementing different types of training and education-related activities in the region. The PIETR Panel Chair acknowledged the long-term contribution of the previous PIETR Panel Chair (Cook Islands) Mr. Arona Ngari.

161. The PIETR Panel Chair outlined PKO 9 under the PIMS, relating it to the PIETR Panel, and provided an overview of the role of the PIETR Panel in supporting capacity development and institutional strengthening.

162. The PIETR Panel Chair highlighted NIWA's support for technical training, to assist in establishing long-term maintenance of observational equipment and filling a known gap in the region. It noted that as more advanced equipment is introduced to the region, the need for observers will decrease, but the need for ongoing maintenance will increase, and therefore, encouraged future project developments to support capacity-building in this area.

163. The PMC Chair invited the Meeting to note the progress, updates, and recommendations put forward.

164. The Cook Islands supported and adopted the recommendations and noted that it will contribute to Recommendation # 4 to support future training and research activities from the PIETR Panel.

165. Palau expressed concern regarding the different mandates for QMS for the North Pacific in comparison to the South Pacific, that make it challenging for addressing capacity building for QMS. It highlighted the challenges that arise from trying to align with two different policies producing different requirements. It recommended to adjust QMS so that it may be more flexible to the different mandates of the North and South Pacific.

166. The PIETR Panel Chair acknowledged that the different mandates create confusing standards, and noted that as QMS relates specifically to aviation, the issue can also be addressed through the PIAWS Panel.

13.2 Pacific Climate Change Centre-Coordination of Pacific Climate Change Science

THE MEETING:

I. NOTED the progress on the review of the Pacific Climate Change Research Roadmap.

II. NOTED the progress for strengthening Pacific coordination for the Intergovernmental Panel on Climate Change.

III. RECOMMENDED mobilising of resources for the strengthening pacific engagement and coordination of the Intergovernmental Panel on Climate Change and the implementation of the Pacific Climate Change Research Roadmap.

167. The SPREP Secretariat provided an update on coordination of Pacific Climate Change Science and strengthening Pacific engagement and participation in the Intergovernmental Panel on Climate Change (IPCC).

168. The SPREP Secretariat acknowledged the review underway will strengthen alignment of roadmaps including the Pacific Roadmap for Strengthening Climate Services and Pacific Climate Change Research Roadmap. Australia, New Zealand and the United Kingdom Meteorological Office were acknowledged for their support during the 4th Pacific Oceans Pacific Climate Change Conference (POPCCC4), which was hosted in May 2024 in partnership with the Government of Samoa, National University of Samoa, Victoria University of Wellington and SPREP.

169. It was noted that SPREP hosted several IPCC seminars and engaged at the Pre-COP with the IPCC Chair to elevate Pacific voices, with funding from Australia and New Zealand. Webinars were also conducted to prepare for the IPCC Bureau.

170. The SPREP Secretariat stressed the importance of Pacific voices being heard and amplified at the international level. Noting the earlier agenda item, a reminder was conveyed encouraging the call for nominations for the Pacific community to be part of the IPCC reports either as lead authors or review authors.

171. Samoa expressed support for the recommendations and congratulated the PCCC for the progress on the review of the roadmap. It was also noted the importance of the Pacific contributing to national, regional and global level reports and fora and encouraged all Members and partners to mobilise resources to support the PCCC.

172. Samoa further acknowledged the grant agreement between the Governments of Japan and Samoa which enabled the PCCC to be built at SPREP and the technical assistance that is continuing for capacity building. It was also highlighted the importance of increasing visibility of the Pacific in the IPCC reports, as it is the science-based documents used for decision making that provides advice to policy makers.

173. Niue acknowledged SPREP on behalf of the PCCC and encouraged collaboration of the PCCC with UNEP CIS-Pac5 on climate and traditional knowledge with work which has already started including VanKIRAP. The PCCC was also encouraged to support NMHS in enhancing linkages between NMHS and climate change sectors in country. It was noted as a challenge to find an appropriate entry point, to coordinate work on the ground. Niue highlighted that many NMHS are not part of the UNFCCC processes and there is a need for SPREP to support NMHS and focal points in country.

174. Palau expressed support for Niue's intervention on climate change and NMHS as they are two separate entities and do not always work together. It was noted that in Palau the climate change division attend the UNFCCC meetings with data received from SPC and yet the data is sourced by the NMHS. Palau agreed to the importance of collaborations between NMHS and climate change divisions, of working on data collection, analysis and reporting.

175. Kiribati acknowledged the PCCC update and supported the recommendations put forward. It encouraged the PCCC to support Pacific island countries with the development of country reports for the UNFCCC noting the climate analysis required. Kiribati noted the importance of investing in capacity building and providing services to sustain and maintain tools to support future reports to the UNFCCC.

176. The Chair acknowledged all comments made by Members and conveyed appreciation for the presentation from the PCCC.

13.3 Planning and Establishment of the Pacific Regional Training Centre (PRTC)

THE MEETING:

I. NOTED Weather Ready Pacific (2024-2033) and JICA project (2024–2028) has started to accelerate the establishment process and to support financing resources for training implementation. Collaboration to enhance synergy of related cooperations through PIETR Panel RTC task team meeting and Weather Ready Pacific steering committees.

II. TASKED the PIETR Panel RTC task team to define timelines with clear milestones for setting up the Pacific RTC by 2025 and to mobilise resources for establishment and implementation of the Pacific RTC.

III. RECOMMENDED Collaboration across Panels to enhance strategic and effective training and research activities for the Pacific RTC and contribute to promote actions of respective Panels.

177. Fiji and JICA presented an update on the progress of the Fiji Meteorological Service (FMS) hosting the Regional Training Centre (RTC) including an outline of steps taken towards the establishment of the RTC by 2025. It was noted that they have facilitated a coordination mechanism and implementation plan. Fiji also encouraged PMC and relevant partners to work collaboratively and to help mobilise resources towards setting up the Pacific RTC.

178. Tonga acknowledged and supported the recommendations and requested that Recommendation # 2 be strengthened and changed to 'tasked' rather than 'inform'.

179. The United States expressed support for the recommendations, especially Recommendation # 3. It was noted that the Cooperative Program for Operational Meteorology, Education and Training (COMET) specialises in developing training programmes and is willing to support.

180. The Cook Islands acknowledged the presentation including progress made and expressed support for the recommendations. Appreciation was conveyed to JICA for the continuous support with regards to training.

181. Niue acknowledged the work completed to date and encouraged the panel to consider accredited training courses and to work with other training initiatives too.

182. Nauru expressed support for the recommendations presented.

13.4 Launch of the SPREP eLearning Platform

THE MEETING:

I. NOTED the launch of the SPREP eLearning Platform.

II. ADOPTED the eLearning Platform as the primary repository for ICT eLearning courses.

III. ENCOURAGED funding from potential donors to ensure sustainability of the platform.

IV. ACKNOWLEDGED WMO CREWS for their support and funds for developing the eLearning Platform.

V. ENCOURAGED NMHSs to use the platform.

VI. NOTED that courses were developed and will be delivered by the SPREP ICT experts and will be informed by the gaps needs analysis from the countries.

183. The SPREP Secretariat provided the background and overview of the eLearning platform and launched the eLearning platform making it live with 3 training courses available. The assistance of WMO and CREWS 2.0 was acknowledged for the financial support to develop the eLearning platform.

184. It was noted that the Tonga mobile application has now been aligned to be able to use and access the e-learning platform. The platform was highlighted as flexible and allows for changes as well as loading existing courses. Course format is mixed including Video sessions, online labs, assessments and online community to support each other.

185. The Cook Islands, Federated States of Micronesia, Samoa, Tokelau, Tonga, Tuvalu, Vanuatu supported and endorsed the recommendations. They acknowledged the importance of the platform in strengthening capacity of NMHS staff.

186. Samoa suggested to the Secretariat for the eLearning platform to be aligned and included in the RTC and the COMET.

187. Tonga proposed an additional Recommendation # 6 that courses were developed and will be delivered by the ICT experts of SPREP and will be informed by the gaps needs analysis from countries.

188. Tonga acknowledged support from the SPREP ICT on the development of the mobile application.

189. Vanuatu sought clarity on how the training programmes will be organised and accreditation status of the courses. The SPREP Secretariat clarified that the training programme is for everyone including those who have no knowledge about ICT. The training is organised so that they work in a buddy system with one being the forecaster and another an IT staff from the NMHS. In terms of accreditation, SPREP is working towards ensuring all training courses will be accredited and is a work in progress, with current focus on knowledge sharing.

AGENDA ITEM 14. Pacific Island Communication and Infrastructure (PICI)

14.1 Progress and Updates

THE MEETING:

I. ACKNOWLEDGED the contributions from COSPPac , NOAA, CREWS, UNEP CIS-Pac5, VanKIRAP, Weather Ready Pacific, technical partners and all other projects and programmes that have contributed to implementing the work of the PICI Panel.

II. NOTED the Progress of the Pacific Island Communication and Infrastructure (PICI) Panel in collaboration with national, regional and international partners towards strengthening observations and communication infrastructure.

III. REQUESTED for the PMC Panel Chairs to meet regularly and discuss issues arising from the Panel Meetings including other crosscutting issues and activities and is encouraged to do so before the next session of the PMC.

IV. REQUESTED the Review of the PICI Panel workplan and aligning activities to the Weather Ready Pacific Programme and national strategic frameworks and is encouraged to do so before the next session of the PMC.

V. REQUESTED for the inclusion of the PMC Inter-Panel coordination forum in the Weather Ready Pacific Liaison Platform.

VI. RECOMMENDED the development of a Pacific Infrastructure and Communication Strategic Framework and Implementation Plan to guide the work of the PICI Panel.

190. The SPREP Secretariat provided an overview on the progress of the PICI Panel's activities since the PMC-6 and acknowledged the leadership of the Panel Chairs.

191. The SPREP Secretariat outlined changes made to the Terms of Reference, particularly regarding the term length of the Chair and Vice Chair, that will continue to encourage participation from all members. It also highlighted the removal of individual country names under section 4.1, making reference to all PMC members instead, and acknowledging the work and contribution of the national services, donor partners, and the PMC core membership.

192. It was noted that there was an official request for membership tabled at the PICI Panel meeting in the previous week recognising the value of contributions from media outlets to the work of meteorological services who do not sit at the PMC and discuss ICT services.

193. The SPREP Secretariat highlighted the multiple regional developments over the past year, including getting multiple weather and observation stations under compliance using current WMO tools, but also reminded the Meeting to acknowledge the progress completed nationally to setup and establish infrastructure.

194. Key national developments were specified, including the large focus on installing backup power supplies, installing Automated Weather Sensor Systems (AWSs), Automated Weather Observing Systems (AWOSs), and spotter buoys as well as relaunching key facilities such as the tide gauge hut in Niue. It also highlighted the interest in moving into mobile applications to communicate information and simplify climate communications.

195. The SPREP Secretariat acknowledged PMC-6's request for the gap analysis on the ICT infrastructure and observing networks in the region, advising that some progress has been made, including a draft Terms of Reference that will be completed by the end of 2024.

196. The SPREP Secretariat outlined challenges identified by the PICI Panel, including the alignment of all Panel workplans with each other and the Weather Ready Pacific. It was also noted the need to develop a regionalised and standardised approach to observing technologies and infrastructure, and the need to seek financial and technical support to increase the basic function of observing networks. It was also shared the lack of technical and human resources to deal with the provision of core services that rely on ICT.

197. The United States acknowledged the need for a regionalised and standardised approach to observational technologies and infrastructure, but recommended that a data sharing guideline be included, to ensure accessible data sharing regionally across different countries.

198. It reinforced that observations form a basis for all meteorological work and ensuring that bigger data networks from countries such as United States and United Kingdom continue to have access to observational data from technologies and infrastructure that have been regionally standardised will provide opportunities for verification and high-resolution modelling that will benefit the region as a whole. The United States offered support for assisting in data sharing and global transmission.

14.2 Guiding Principles for Observations, Communications and ICT Infrastructures

THE MEETING:

I. NOTED that reliable communication infrastructure and observations are the cornerstone to all weather, climate and hydrological forecast and warning services.

II. RECOGNISED the varying degree of ICT and observing capabilities and resources between countries across the region and the need to tailor and implement appropriate activities accordingly.

III. RECOMMENDED NMHS to apply systematic budget analysis and planning for the maintenance and sustainability of core NMH Communication and Infrastructure services.

IV. RECOMMENDED partners and donors to use national and regional analyses to incorporate sufficient funding to support training, maintenance and sustainability of Observations Communication and Infrastructure services

V. RECOMMENDED the setup of a forum for Inter-Panel engagement and discussion on infrastructure priority development and crosscutting issues across the PMC panels of experts.

VI. RECOMMENDED all NMHS, technical partners and donors to adopt quality management standards for observation networks and equipment in alignment with WMO standards (e.g. ISO27001).

VII. RECOMMENDED the Secretariat and the Panel Chairs to investigate the development of a regionally relevant Guiding Principles Framework for observing, communications and ICT infrastructures to maximise the value of investments delivered through the Weather Ready Pacific Programme and all other related projects.

199. Fiji presented the background and the rationale for the Guiding Principles for Observations, Communications and ICT Infrastructures, which is based on experience from the Pacific NMHS.

200. It was noted that the Pacific recognises that sustainable hydro-meteorological products and services require robust infrastructure in observing, communications and ICT infrastructure in order to capture, process and exchange observations, and to generate and disseminate forecasts and warnings through national, regional and global networks.

201. It was shared that there is new infrastructure projects introduced to the region that have typically not been funded beyond their project implementation timelines. This has resulted in significant new infrastructure maintenance costs being expected from, or imposed on, the recipient governments or NMHS.

202. Fiji proposed a regional approach to standardise technologies and infrastructure in a sustainable manner.

203. The United States and Cook Islands acknowledged the presentation.

204. The United States noted the comments provided in Agenda item 14.1 and the need to see and reflect language on data sharing and data observations transmission to start the framework for regional policy that all can agree upon.

205. The Cook Islands requested clarity on the programme scope whether it also includes masts for AM Radio stations and frequencies to add value and strengthen communications and sharing information to communities.

206. The Secretariat in response to the Cook Islands query noted that it is part of the programme however there has not been much visibility. The programme on Guiding Principles for Observations, Communications and ICT Infrastructures, have included the World Food Programme and Regional Office of the Regulators but may require the PICI panel to be tasked to revisit the partnership to focus and address work on radio frequencies at national and regional levels.

14.3 Regional Instrumentation and Calibration Center

THE MEETING:

I. ACKNOWLEDGED the support government of Japan

II. NOTED the ongoing efforts by Fiji Met Service, NIWA, JICA, Australia (BoM), and other partners to provide instrumentation and calibration services and capacity development training to the region and to FMS.

III. REQUESTED additional technical and financial support for FMS to enhance its technical capacities and systems to meet WMO RIC criteria and ISO standards (ISO/IEC 17025; 17) and acquire competency certification in order for accreditation as a WMO Regional Instrument Centre (RIC).

207. Fiji and JICA presented an update on the progress of the Fiji Meteorological Service (FMS) hosting a WMO Regional Instrument Centre (RIC) including an outline of steps taken towards the establishment of the RIC.

208. Nauru expressed support for the recommendations presented.

AGENDA ITEM 15. Pacific Island Marine Weather and Ocean Services

15.1 Progress and Updates

THE MEETING:

I. ENDORSED the inclusion of the Tsunami Task Team as part of the Pacific Island Marine Weather and Ocean Services (PIMOS) Panel.

II. ENDORSED the updated PIMOS Terms of Reference.

III. ACKNOWLEDGED the ToR for the 5-task teams.

IV. NOTED Mr Bipendra Prakash as the new Pacific Islands-Global Ocean Observing Systems (PIGOOS) Coordinator hosted at SPC.

V. TASKED PIMOS to develop regional guidelines and standard operating procedures templates for ocean observations to strengthen sustainability of ocean monitoring services.

VI. ACKNOWLEDGED the need for a regional approach to coastal inundation forecasting.

VII. TASKED PIMOS to undertake a feasibility study on the development of a regional coastal inundation forecast system.

VIII. REQUESTED PMC for guidance on mechanisms to align and endorse relevant initiatives by Weather Ready Pacific.

IX. NOTED the emerging opportunities for new income streams through investment in strengthened ocean services.

209. An update from the Pacific Islands Marine and Ocean Services (PIMOS) Panel was presented to inform the meeting on the emerging opportunities from strengthened ocean prediction and monitoring services. Endorsement was sought from Members to help strengthen ocean prediction and monitoring services.

210. Tuvalu endorsed and supported the Recommendations # 5 through to # 7.

15.2 Update on the development of Guidance on SOLAS

THE MEETING:

I. ENDORSED the Guidance for the implementation of Regulation V/5 on meteorological services and warnings of the International Convention for the Safety of Life At Sea (SOLAS) 1974 SOLAS, which is a live document.

II. ENCOURAGED Technical partners and donors to support NMHSs in the implementation of this guidance

III. ENCOURAGED Technical partners and donors to help address gaps through b) such as the need to strengthen QMS.

IV. RECOMMENDED that NMHSs establish a Memorandum of Understanding (MOU) with the in-country Maritime administration. The MOU should identify areas for collaboration to meet SOLAS requirements and include a clause for the sharing of audit findings.

211. Solomon Islands provided an overview of the SOLAS Convention and highlighted the important relationship between meteorological services and agencies that must follow the SOLAS Convention. It was noted that meteorological services have the responsibility to deliver on the SOLAS Convention. Solomon Islands shared that when an organisation is audited by the IMO, evidence must be provided of fulfilling the obligations under SOLAS.

212. It was noted under PIMOS, guidance to deliver the meteorological service warnings as required by SOLAS was developed, which is annexed to the working paper. It was highlighted that it provides guidance on what auditors may ask when they audit, allowing services to compile evidence when auditors are coming.

213. Solomon Islands encouraged liaising with colleagues to ensure that what is included in the strategy, which covers the responsibilities of the meteorological services and to use the guidelines to prepare for the first audit.

214. The Cook Islands recognised the importance of setting up the networks regarding the quality of the data going into the network and quality data requires QMS to get accurate forecasts from the Cook Islands. The Cook Islands supported and endorsed the recommendations to improve observation networks and data quality.

215. Solomon Islands responded that weather observations from ships is something they want to pilot and are setting up an MOU in the Solomon Islands to do so. It is in the guidelines too.

AGENDA ITEM 16. Country and Territories Presentations

216. American Samoa requested that countries do their presentations outside after Agenda 17. Fiji, Palau, and Papua New Guinea supported American Samoa.

217. Kiribati supported American Samoa but requested that the Secretariat allow individual members to enter into the record what they want to capture from their respective posters. The Secretariat requested that all Members submit their priorities in writing to the Secretariat, so that it may be included in the Report.

218. The Secretariat requested that the posters be used in the Pacific Climate Change Roundtable to reflect the position of the meteorological services.

219. Tonga supported the Secretariat's request noting that priorities and existing gaps are some of the key messages arising out of the country reports and presentations. American Samoa seconded Tonga's support for the Secretariat including the posters in the Pacific Climate Change Roundtable.

Pacific Islands Meteorological Strategy (PIMS) 2017-2026 Report Card 2024

The Pacific Islands Meteorological Strategy (PIMS) 2017-2026 presents the priorities of Pacific Island Countries' and Territories' (PICTs) National Meteorological and Hydrological Services (NMHSs) for the next ten years, aiming to strengthen weather, climate, water, and ocean services for all stakeholders through the timely provision of climate change information and warnings for extreme events. The PIMS was adopted by the Pacific Meteorological Council (PMC) to ensure that NMHSs have the capacity to fulfil their responsibilities. It draws on the advice of NMHSs, their clients, and their partners to update its objectives, recognising that national, regional, and international contexts have changed and that development in the region is ongoing. This report summarises the ongoing progress towards achieving the strategic outcomes of the PIMS since 2017, its relation to key international frameworks, the national and regional activities by PICTS and key partners and donors that have contributed to the PIMS priorities.

PIMS identifies five priority areas for action, set out in a matrix of Pacific Key Outcomes (PKOs) and activities that can be undertaken at both the national and regional levels:

Priority 1	Improved weather services, in particular aviation, marine, and public weather services, and the establishment of ocean weather services to support the safety and efficiency of sectors. PKO 1: Improved aviation weather services PKO 2: Improved marine weather services and establishment of ocean services PKO 3: Improved public weather services
Priority 2	Disaster risk reduction, including contributing to the Framework for Resilient Development in the Pacific 2017-2030 and the Sendai Framework for Disaster Risk Reduction 2015-2030 to protect the lives and property of Pacific people as well as NMHSs' contributions to climate change internationally, regionally, and nationally. PKO 4: Strengthened NHMSs capacity to implement Multi-Hazard Early Warning Systems (MHEWS) for tropical cyclones, coastal inundation, and tsunamis PKO 5: NHMSs contribution to climate change activities
Priority 3	Improved climate and hydrological services, including implementing the Pacific Roadmap for Strengthened Climate Services (PRSCS) and strengthened collaboration between hydrological and meteorological services. PKO 6: Improved climate information and prediction services through the implementation of the Pacific Roadmap for Strengthened Climate Services PKO 7: Strengthen collaboration between meteorological and hydrological services to better manage water resources and reduce the impact of water related hazards
Priority 4	Integrated observing and communication systems to support processing and preparation of weather, climate, water, and ocean information and services including warnings. PKO 8: Integrated observing and communication systems
Priority 5	Coordinated support for NMHSs, PMC, and the Pacific Meteorological Desk Partnership (PMDP) to ensure NMHSs have resources to undertake their legislated requirements and service their stakeholders. PKO 9: NMHSs institutional strengthening and capacity development PKO 10: Support to NHMSs is coordinated PKO 11: PMC is an efficient and effective body

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PIMS and Key Regional and International Frameworks

Framework for Resilient Development in the Pacific (FRDP) 2017-2030

The FRDP serves as the Pacific's single integrated regional framework on climate change and disaster risk management. It provides high level strategic guidance to different stakeholder groups on how to enhance resilience to climate change and disasters, in ways that contribute to and are embedded in sustainable development. It comprises three inter-related goals to enhance resilience to disasters and climate change in the context of sustainable development.

The PIMS plays a substantial role in contributing to the FRDP, particularly regarding ongoing capacity building and development. The table below maps the PIMS's PKOs to the FRDP's three goals, identifying key points of intersections between the regional initiatives.

FRDP Goals	PKO 1	PKO 2	PKO 3	PKO 4	PKO 5	PKO 6	PKO 7	PKO 8	PKO 9	PKO 10	PKO 11
1											
2											
3											

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national and regional activities supporting the progress of the PIMS have been correlated to the goals and strategic outcomes of the FRDP

Sendai Framework for Disaster Risk Reduction 2015-2030

The Sendai Framework presents a concise, focused, forward-looking and action-oriented post 2015 framework for disaster risk reduction. It incorporates a strong emphasis on disaster risk management, the reduction of disaster risk, preventing new risk, reducing existing risk, and strengthening resilience. It comprises four priorities for action: understanding disaster risk, strengthening disaster risk governance to manage disaster risk, investing in disaster risk reduction for resilience, and enhancing disaster preparedness for effective response to "Build Back Better" in recovery, rehabilitation and reconstruction.

A significant component of strengthening NMHSs in the Pacific Island region under the PIMS is building disaster risk readiness, responsiveness, and resilience. The table below maps the PIMS's PKOs to the Sendai Framework's four overarching priorities. PIMS Priority 2 (PKOs 4 and 5) rightfully presents the highest correlation to the Sendai Framework, as the PIMS priority dedicated to disaster risk reduction.

Sendai Priorities	PKO 1	PKO 2	PKO 3	PKO 4	PKO 5	PKO 6	PKO 7	PKO 8	PKO 9	PKO 10	PKO 11
1											
2											
3											
4											

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national and regional activities supporting the progress of the PIMS have been correlated to the priorities for action and strategic outcomes of the Sendai Framework.

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Transforming our World: the 2030 Agenda for Sustainable Development

This 2030 Agenda is a plan of action for people, the planet and prosperity, seeking to strengthen universal peace and equality. It is the overarching international framework responsible for recognising and encouraging progress towards eradicating poverty, including extreme poverty, in all its forms and dimensions. It identifies poverty as the greatest global challenge and an indispensable requirement for sustainable development. It comprises 17 Sustainable Development Goals (SDGs) which seek to build on, and further, the Millennium Development Goals. The SDGs are integrated and indivisible, and balance the economic, social, and environmental dimensions of sustainable development.

The 2030 Agenda overarches all international and regional frameworks, which are expected to meet the aspirations of its 17 SDGs. Consequently, all strategies and frameworks between countries and regions have been built within the scope of the 2030 Agenda, and the PIMS is no exception.

Many of the strategic outcomes and priorities of the PIMS, such as strengthening the capacity of NMHSs to prepare for disaster risks and forecast weather, are integrated and interrelated with the 2030 Agenda's mandate to strengthen universal peace and equality. The table below maps the PIMS's PKOs to the 17 SDGs of the 2030 Agenda. PIMS priority 3, on climate change and resilience, particularly correlates with several SDGs under the Agenda, with the purpose of ongoing sustainability and the benefit of future generations at the forefront of its objectives. However, the 2030 Agenda widely intersects with all priorities of the PIMS, with most SDGs (except for SDGs 8, 15, and 16) mapping to at least one PIMS PKO.

SDGs	PKO 1	PKO 2	PKO 3	PKO 4	PKO 5	PKO 6	PKO 7	PKO 8	PKO 9	PKO 10	PKO 11
1				■	■	■					
2				■		■		■			
3						■					
4									■		
5											■
6						■	■				
7						■		■			
8											
9		■	■	■	■	■	■	■		■	
10										■	
11				■	■		■				
12					■		■				
13				■	■	■	■		■	■	
14		■				■	■				
15											
16											
17						■	■	■			■

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national and regional activities supporting the progress of the PIMS have been correlated to the priorities for action and strategic outcomes of the 2030 Agenda and 17 SDGs.

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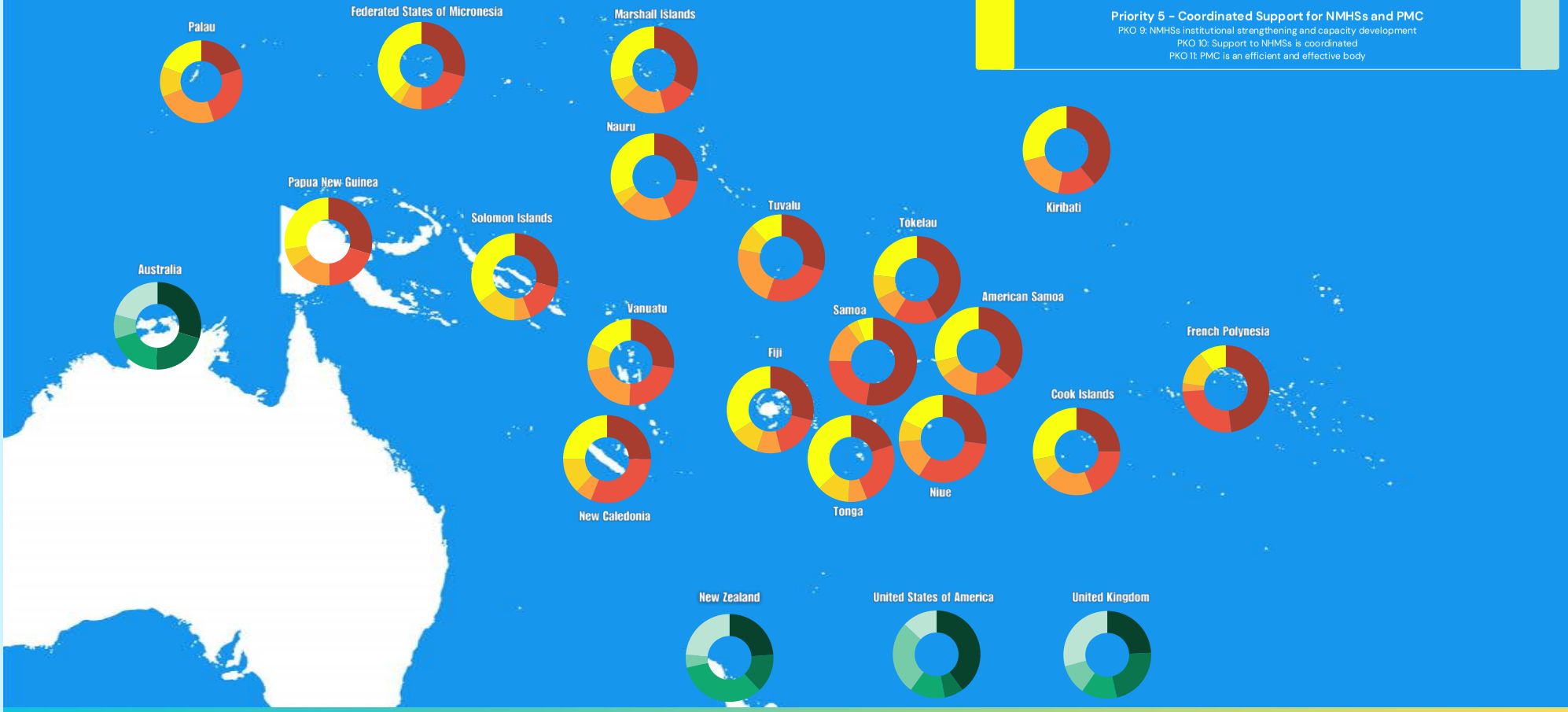
Reporting National and Regional Country Activities Against the PIMS 2017-2026 Priorities

Progress towards achieving the strategic outcomes of the PIMS may be measured by an assessment of the many activities undertaken between 2017 and 2024 at both the national and regional levels that are aimed at contributing towards the five priorities and 11 PKOs of the PIMS. National activities comprise those undertaken by PICTS aimed towards achieving the priorities of the PIMS. Regional activities, or projects, encapsulate the contributions from Australia, New Zealand, the United Kingdom, and the United States, as well as other external partners, organisations, donors, and projects that have assisted the PICTS in implementing the five key priorities. In the displayed map, the total national and regional activities undertaken by each country to the PIMS and the PMC have been broken down into the PIMS' five key priorities, sectioned based on the countries' reported commitments to the matrix of PKOs underscoring the priorities. It is not reflective of the expenditures of each activity and project that contributed to achieving the PIMS, but regardless, presents a concise overview of the number of activities and projects completed under each priority by each country to date.



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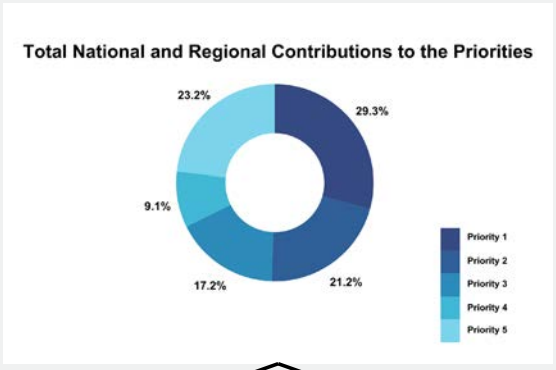
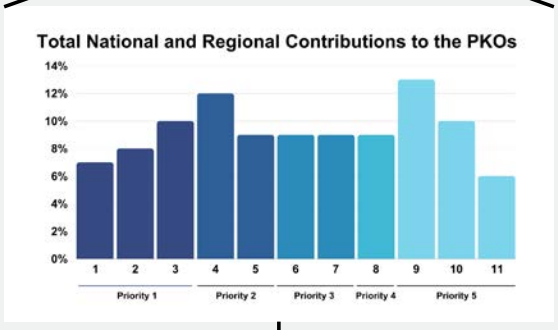
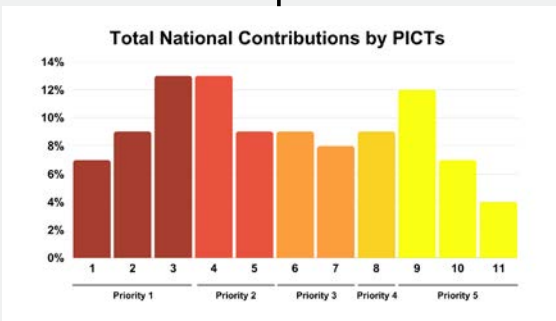
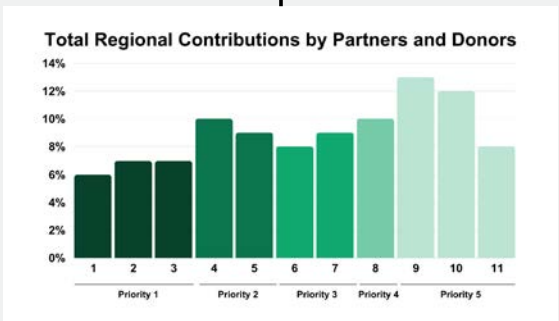
Total National and Regional Contributions to the 11 PKOs of the PIMS 2017-2026

With aid from the Pacific Meteorology Donors and Partners Dashboard to analyse the activities of regional partners and donors, national and regional activities implementing the PIMS and contributing to its key outcomes have been mapped to its priorities and PKOs, to determine the extent that each has been contributed to proportionately throughout the time of the strategy. Shown below, is a breakdown of the overall proportion of the contributions towards each priority under the PIMS based on the number of activities and their purpose. As the PIMS five priorities are set out into a matrix of 11 key PKOs, a similar analysis has been performed for the PKOs. Additionally, the contributions to each PKO have been further subdivided into contributions from national activities by PICTs and contributions from regional projects by partners and donors, including Australia, New Zealand, the United Kingdom, and the United States.









The new Weather Ready Pacific Program 2023-2033 will seek to increase regional support to Priority 1 (PKOs 1, 2, and 3), which has received proportionately less support from regional partners and donors so far under the PIMS.

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Emerging Priorities

Progress towards achieving the PIMS's strategic outcomes are largely measured by reports submitted by PMC country partners. However, these not only provide an overview of their work undertaken for the PIMS so far, but also outline their key priorities that require continued support to enhance their mandated roles. These highlight critical areas for additional resources and guidance to further develop NMHSs' operational capabilities and services. Below are a summary of emerging priorities collated from the country reports submitted to the PMC in 2024. These were presented at the Seventh Meeting of the Pacific Meteorological Council (PMC-7) in the same year.

1. Advancing Technical Training and Capacity Building

PKO 4, 5, 6, 7, 9, 10

- Long-term donor support.
- Upskilling meteorology staff.
- Specialised training.
- Competency assessments.

2. Enhancing Climate and Ocean Services for Decision-Making and Community Engagement

PKO 1, 2, 3, 6, 7, 9, 10

- Integrated forecasting and warning systems.
- Marine and aeronautical services.
- High-resolution climate models.

3. Addressing Staffing and Retention Challenges in NMHSs

PKO 8, 9

- Renumeration and retention strategies.
- Qualified staff; new and current.
- Professional development.
- Higher salaries.

4. Strengthening NMHS Infrastructure and IT Equipment

PKO 1, 2, 3, 7, 8, 9, 10

- Ongoing donor support.
- Internet connectivity.
- Office equipment.
- Forecasting facilities.

5. Strengthening Early Warning Systems for Enhanced Safety

PKO 4, 6

- Public awareness and promotion.
- Integrating El Niño–Southern Oscillation cycles.
- Warning timeliness.
- Observations and forecasting.

6. Enhancing Data Quality and Management for Climate Services

PKO 3, 5, 6, 9

- Public accessibility of climate data and projections.
- Long-term historical data availability.
- Climate services training.

7. Improving Communication Infrastructure and Community Engagement

PKO 3, 4, 7, 8, 9

- Standard operating procedures and communication plans.
- Community engagement support.
- Remote communications.

8. Ensuring Effective Operation and Maintenance of Meteorological Infrastructure

PKO 8, 9

- External funding.
- Maintenance support.
- Operation and maintenance training.

9. Strengthening the Observation Network for Meteorological Services

PKO 1, 2, 8, 9, 10

- Ongoing donor support.
- Observational spatial coverage.
- Equipment maintenance.
- New equipment.

10. Enhancing Online Platforms for NMHS

PKO 3, 9

- Website development and maintenance.

11. Enhancing the Integration of Traditional Knowledge into Climate Services

PKO 3, 4, 6, 9

- Traditional knowledge database.
- Integration of traditional knowledge and climate indicators.
- Community engagement.

12. Strengthening In-Country Scientific Research to Support Climate Change Adaptation and Mitigation

PKO 5

- Enhanced national capabilities for scientific research.

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A photo of the participants to the Seventh Meeting of the Pacific Meteorological Council (PMC-7) hosted in Vanuatu from the 17th to the 19th of September 2024. The Meeting hosted over 200 attendees from various country partners, private donors and institutions, and organisations.

Donors

Implementing Partners

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AGENDA ITEM 17. Review of the Pacific Meteorological Council and Pacific Meteorological Desk Partnership

17.1 Update and Progress of Review

THE MEETING:

I. NOTED the progress presented and requested the consultant to take the views expressed by Members into consideration of the final report and the offer of support by Fiji and Tonga.

220. The consultant provided a comprehensive update to the Meeting on the progress of the Review of the Pacific Meteorological Council and Pacific Meteorological Desk Partnership. It was noted that the intention of the presentation was to raise issues for discussion and input to the Review.

221. Tonga stated that the paper presented did not help progress the work of the PMC as it did not provide strategic direction. Tonga noted that timelines were not provided, and the draft terms of reference was incomplete. It was emphasised the need for additional support to be given to the consultant and that Directors be more involved in the review process. While Tonga noted the progress of the work, it stressed that more needed to be done and offered its support to be a part of the ongoing work.

222. Fiji thanked the consultant for the work completed to date. It noted that it required more strategic direction to guide the meteorological work at the national level to inform decision making. Fiji stated that the review recommendations must also be concrete, and to be implemented on the ground including by grass roots communities. Fiji echoed the sentiments of Tonga and reiterated that the recommendations for the review needed to be stronger and practical with more recognition of what has been achieved and includes the aspirations of the Met community. Fiji suggested that the review also look at what is directly related to the Hydromet community. Like Tonga, Fiji offered to be a part of the review work.

223. Tokelau shared similar sentiments about the lack of direction that Tokelau has in relation to where they could obtain more help and support. Tokelau acknowledged the work of SPREP and WMO. Tokelau queried where it could get more support within the met community.

224. Samoa questioned whether the in-person consultation was enough for the Review and queried whether the consultant needed more time and support to complete the work. Samoa offered to assist Tokelau with Met support.

225. Papua New Guinea acknowledged the work of the consultant and highlighted the need to be supported by existing institutions. It was emphasised that support not be just in the form of bilateral arrangements and reminded Members that as nations and institutions, it was important to be sustainable and self-sustaining. It was noted that in respect of the 2050 Strategy, and the role of Met within it, it was suggested that the Met community take what is relevant.

226. Niue requested a tangible hook that could be an actual output of the Review. Niue reflected on a question from the PMMM-3 in 2023, in relation to the visibility of meteorology in the 2050 Strategy. It was emphasised the reasons for their work was to help people affected by short-term weather events and long-term climate events. Niue noted the various project support for the work of the PMDP and PMC Secretariat.

227. American Samoa highlighted that according to the agenda, it was only an update and progress report from the consultant and encouraged the consultant to work with members to strengthen the recommendations and findings for the final report. American Samoa highlighted the role of the territories within the PMC community as it was not mentioned in the review and it was critical to ensure the final report was inclusive.

228. Kiribati noted that the Review was not an easy task and acknowledged the good outcomes of the work to date. It was requested that the Review findings be simplified and made relevant and workable for the PMC.

229. The SPREP Director General reminded the Members that the Review is ongoing, in the context of what is happening in the region and in relation to the regional architecture. The SPREP Director General reassured the PMC that reporting on the 2050 Strategy and where Meteorology sits within the Strategy is done by SPREP. The SPREP Secretariat reiterated support for the ongoing Review and the importance of acknowledging the growth and importance of the Met community.

230. The SPREP Director General further reminded Members that the PMC is a SPREP Council responsibility and will remain as such until all SPREP Members decide to change the arrangements. It was also noted that the SPREP Secretariat was responsible for the coordination of wider climate work, including the reconvening of the Pacific Climate Change Roundtable (PCCR), which will help strengthen the work of the PMC. The SPREP Director General reminded the Members that the immediate need was to find ways to strengthen the PMC and the PMDP.

231. The Consultant was appreciative of the feedback received which will be incorporated into the Review that is still ongoing. The Consultant accepted the help offered to strengthen the recommendations and to ensure they are targeted, practical and relevant to the PMC.

232. The Chair encouraged further discussions to better inform the Review and ensure ownership of the Review recommendations by the PMC.

17.2 Strategic Direction for the Pacific Meteorological Desk Partnership

THE MEETING:

I. NOTED with appreciation the establishment of the new Meteorology and Climate Science Programme at SPREP.

233. The PMC Members met in a closed session to discuss the strategic direction for the Pacific Meteorological Desk Partnership and the establishment of the new Programme for Meteorology and Climate Science at SPREP.

AGENDA ITEM 18. Supporting and Empowering Youth Gender Equality, Disability and Social Inclusion

THE MEETING:

I. NOTED that national governments have a duty to ensure that early warning systems are people centred, end to end to enable early action. Ultimately individual and communities are the end users of early warning systems, they have the capacity to act early if the warnings are timely, accessible and appropriate.

II. RECOMMENDED that the national meteorological and hydrological services (NMHS) explore and allocate funding and resources to support the annual budget to conduct assessment of the early warning services and products using existing tools such as *Partner Readiness Assessment* and *Inclusive Early Warning Early Action Checklist and Guide*. This will ensure that warning is inclusive, accessible and actionable by persons with disabilities.

III. RECOMMENDED that NMHS as well as the regional initiatives such as the Weather Ready Pacific and Early Warning for ALL invest in the capacity building of the Organisations of Persons with Disabilities (OPD). This includes training NMHS and OPD staff, co-design and dissemination of the warning products.

IV. RECOMMENDED that NMHS allocate funding and resources in their annual budget for inclusive early warning services and products, including funding for the collection, analysis and use of disaggregated data by age, gender and disability to inform the efficiency of the warning services and products.

V. RECOMMENDED that the PMC Secretariat formalise the working relationship between the Met Community and the Pacific Disability Forum through an MOU.

234. The Pacific Disability Forum, UNDRR and a disability advocate from the Vanuatu island of Tanna jointly presented on 'Supporting and Empowering Youth Gender Equality, Disability and Social Inclusion'. They encouraged members to leverage investment, capacity, and efforts in making early warning systems end-to-end, inclusive, accessible, and actionable by diverse groups, including persons with disabilities, women, children, older persons, and other minority groups.

235. It was highlighted that the Weather Ready Pacific initiative and its governance structure, needs to ensure that early warnings were inclusive, accessible and actionable by all, particularly people with disabilities, and minorities. It was noted that recent studies highlighted the need for inclusive early warnings and translation of policy frameworks into action, with dedicated and sustained budgets for implementation and monitoring of progress.

236. An overview of the impairments and barriers experienced were shared including examples to address them. The Vanuatu disability advocate, who is visually impaired shared an experience from their island of Tanna during Cyclone Pam. It was noted that a person with a disability did not receive the early warnings to enable them to leave their house. With assistance from community members, they were evacuated, before a large tree fell on their house. This was noted as one example of the challenges experienced by persons with disabilities during times of natural disasters, that are further exacerbated by geographical isolation.

237. The UNDRR presented checklists and an implementation guide for inclusive early warning early action, which could be used by NMHS, NMDO and other disaster preparedness stakeholders.

238. The Pacific Disability Forum expressed its appreciation for the support that the PMC has shown from PMC-6 and now at PMC-7. It acknowledged that whilst the NMHSs work is to help reach the 'last mile' to date there is not much clarity on who the 'last mile' is. The Pacific Disability Forum believes that the 'last mile' are persons living with disabilities.

239. The Pacific Disability Forum reminded members that when it comes to persons with disabilities, there should be 'nothing about us, without us' to encourage the participation of persons with disabilities in a meaningful and impactful manner.

240. The Cook Islands acknowledged the presentation by the partners and endorsed the recommendations presented. It highlighted the importance of collaboration at the national level and the experience of community engagement. To assist the Cook Islands Met Services the Cook Islands Emergency Management Office shared their findings on inclusive engagement during an emergency. It was noted that the geo-portal household mapping data, which the Cook Islands has developed, includes data on persons with disabilities within each individual household. Critical information needed during the time of disasters. The Cook Islands reminded all members that inclusivity is not just having a seat at the table, but also having a voice that is heard.

241. Tuvalu acknowledged the presentation and expressed strong support for the recommendations, especially the next steps in the form of a checklist and MOU.

242. The United Kingdom strongly commended the efforts for incorporating and mainstreaming GEDSI. It stated that a lot of the programmes including the WISER programme have this component built into it and is willing to offer support.

243. Tonga acknowledged the presentation and understood the importance of the matter firsthand. Tonga expressed its full endorsement of the recommendations.

244. Solomon Islands thanked the Pacific Disability Forum and UNDRR for the presentation and fully endorsed the recommendations presented. It sought clarification on how the MOU will work, noting at the national level there are existing agreements in place.

245. The SPREP Secretariat explained the current work being done through the ClimSA Project is to engage meaningfully with the Pacific Disability Forum. There have been many requests for engagement between the PMDP and the disability community, and the proposal to formalise the arrangements to mainstream the work, not just within the PMDP but also across the Secretariat.

246. Palau shared their national experience of how they are able to reach persons with disabilities and women in times of disasters. It obtained funding from UN Women and the Palau Red Cross, for the joint project called 'People's Empowerment Project' where the Palau Met Service visited all of the states with a disaster awareness kit to help people prepare. The annual census was an important part of the activity, used to inform their approach. Palau emphasised that partnerships were critical to move activities forward. Noting the importance of the issue, Palau extended its endorsement of the recommendations, particularly the MOU.

247. Niue fully supported the recommendations and suggested the revision of the recommendation to NMHSs to explore and allocate funding and resources to support the annual budget.

248. The WMO thanked the Secretariat for including this session in the proceedings of the PMC-7 and remains fully committed to supporting this initiative. It reminded members of the COPE series that includes messages to raise awareness for vulnerable communities.

249. Samoa fully supported the recommendations and encouraged NMHSs and Hydrometeorological to work with the disability groups in their countries, because there are other forums going on such as NCOFs and they need to be included in these forums to engage in discussions to plan and implement these initiatives. Samoa shared that it has a good relationship with national groups in country. They are also exploring the use of braille to communicate its work. Samoa reiterated the importance of including and encouraging their participation in hydro-met forums.

250. The Pacific Disability Forum recognised the value of their partnership with the Met community, as they can help reach the last mile.

AGENDA ITEM 19. Progress and Updates on Traditional Knowledge

19.1 Traditional Knowledge progress and development in weather, climate, oceans, and multi-hazard

THE MEETING:

I. NOTED the developments in the area of traditional knowledge and the technical and financial support from COSPPac, CREWS, UNEP CIS-5, VanKIRAP, RESPAC and other donors and partners.

II. ACKNOWLEDGED the commitment and support from NMHS and national stakeholder to elevate and integrate Traditional Knowledge into national policies, and early warning activities.

III. ACKNOWLEDGED the Traditional Knowledge work that is implemented and coordinated across Council of Regional Organisations of the Pacific agencies at the regional level.

IV. RECOMMENDED the Revised Pacific Island Meteorological Strategy to include clear priorities of members around Traditional Knowledge.

V. APPROVED and task SPREP to facilitate and coordinate the development of a strategy and implementation plan on traditional knowledge of weather, climate, oceans and natural hazards.

VI. REQUESTED the Weather Ready Pacific Programme and other regional funding initiatives to support the development of the strategy and implementation plan in the short to medium term

VII. APPROVED the development of a regional traditional knowledge proposal to implement the traditional knowledge programme in the long term.

251. The SPREP Secretariat provided an update on progress regarding the implementation of activities on Traditional Knowledge and sought guidance and endorsement of the recommendations on the Traditional Knowledge work implemented by National Meteorological and Hydrological Services and their national and regional partners.

252. American Samoa, Cook Islands, Federated States of Micronesia, Fiji, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu supported the recommendations.

253. American Samoa, Federated States of Micronesia, Fiji, Niue, Palau, Papa New Guinea, Samoa expressed gratitude to the Secretariat for all its work done over the years in support of raising the profile of traditional knowledge in the region for meteorological services.

254. Tonga highlighted the importance of traditional knowledge for its services and its work. It acknowledged that although much has been covered across its main island communities, there is still more work to be done.

255. Tonga suggested that traditional knowledge, and science should be 'married together', and that this be reflected in the recommendations. It acknowledged the importance of scientifically verifying traditional knowledge and that the Pacific needs to elevate traditional knowledge and its profile, particularly for meteorological services. Niue, Samoa, and Vanuatu supported Tonga's intervention.

256. Tonga recommended that the Secretariat develop a roadmap to guide Pacific traditional knowledge work and support PMC members in the ongoing work that is being done.

257. The Cook Islands endorsed Recommendations #2 and #4 due to its absence of recognition in its traditional knowledge projects. It highlighted that it has developed a traditional knowledge database, promotes and raises awareness of traditional knowledge, and delivers traditional knowledge products, particularly at the commencement of the tropical cyclone season, but this is done by the NDMO not by the meteorological service. The Cook Islands requested it be added to the five Pacific countries with basic-advanced traditional knowledge programmes.

258. The Cook Islands acknowledged that it still has a lot of work to do on traditional knowledge including in relation to meteorological services. It acknowledged Niue's community outreach programmes, particularly regarding the involvement of women, and endorsed 'marrying' traditional knowledge and climate science outlooks for community outreach.

259. Samoa highlighted its extensive work on traditional knowledge and the positive outcomes within its communities. It was noted that during quiet periods when there are no warnings, it writes traditional knowledge stories and posts them on social media to raise awareness, which has received positive feedback from communities.

260. Solomon Islands noted that it requires an upgraded traditional knowledge database which was raised at the COSPPac steering committee meeting. It advised that a lot of work must be done before Solomon Islands can use the traditional knowledge information that it has developed.

261. Solomon Islands noted that the monitoring of traditional knowledge indicators is challenging, especially where some may be changing due to climate change. It emphasised the importance of monitoring and verifying traditional knowledge indicators before integrating them into climate science for forecasting.

262. Solomon Islands requested having additional support for traditional knowledge information collection.

263. Papua New Guinea recognised that it has not started establishing a traditional knowledge programme but acknowledged that it has a lot of traditional knowledge information that should be collected and monitored.

264. Palau requested support for its traditional knowledge project and setting up its database. It noted that during 2018 and 2019 for the CREWS project, setting up a traditional knowledge database was planned, but was put on hold due to the global pandemic, and never recommenced. It was noted however, that Palau has made some progress creating a booklet on traditional knowledge and integrating it into the school curriculum.

265. American Samoa, Tuvalu and SPREP congratulated the countries that already developed their traditional knowledge programmes.

266. Tuvalu requested support to commence their own traditional knowledge programme.

267. American Samoa highlighted that there is local interest in developing a traditional knowledge programme when doing community outreach and expressed interest in developing its own traditional knowledge programme.

268. Niue advised all Members to embed traditional knowledge into their meteorological strategies and programmes, highlighting its use as a sustainable way to appreciate, embrace, and maintain culture.

269. Niue requested the production of a traditional knowledge assessment and that more storage space be provided for videos, photos, and other documents to support and enhance the profile of traditional knowledge.

270. Niue, Vanuatu and SPREP acknowledged COSPPac for initially commencing the work on traditional knowledge in the region.

271. Vanuatu acknowledged VanKIRAP for its assistance in developing Vanuatu's traditional knowledge database. It recognised that although pilot sites have responded well to the creation of traditional knowledge programmes, the outer islands have yet to implement their traditional knowledge initiatives. It recommended that work on traditional knowledge continue in the region.

272. SPREP reminded the Meeting that as climate change continues, traditional knowledge indicators are likely to change, and therefore the science of traditional knowledge needs to be collected and analysed. It also highlighted that using traditional knowledge in the meteorological space has been highly successful, and therefore, it seeks to integrate traditional knowledge work into the Pacific Climate Change Centre (PCCC) to validate climate science and raised awareness of traditional knowledge, particularly in adaption and mitigation.

273. SPREP recommended that Recommendation #6 not limit traditional knowledge work to Weather Ready Pacific on its own, but also explore other funding opportunities, to support the development and implementation of a regional traditional knowledge strategy. It highlighted that this would prevent limiting funding to ongoing initiatives and allow the inclusion of funding support through new initiatives.

274. Fiji requested it be included in the strategy and current initiatives to develop the traditional knowledge programme for its Met Service.

19.2 Sustainable Cultural Tourism and Weather and Climate Traditional Knowledge

THE MEETING:

I. NOTED the update on the linkages between weather and climate Traditional Knowledge and the development of sustainable cultural tourism in the Pacific region.

II. CONSIDERED the Pacific Cultural Tourism Guidelines as one of the tools to inform future weather and climate Traditional Knowledge policies and programmes for the tourism sector.

III. ACKNOWLEDGED the efforts of the PMC and the Secretariat in engaging the tourism sector at national and regional level through the CROP mechanism.

IV. NOTED the need for guidance from the Members on the role of the tourism sector in supporting Traditional Knowledge aspirations.

275. The Pacific Tourism Organisation (SPTO) informed Members on the progress of the tourism sector's work on the development of regional guidelines for the integration of Culture including Traditional Knowledge across sector policies and programmes. It also provided an overview of the areas and opportunities where tourism intersects with weather, climate and traditional knowledge information.

276. The Cook Islands, Niue, Palau, and Samoa supported the recommendations.

277. Niue noted that there are a lot of aspects that SPTO can engage with and promote for traditional knowledge, climate, and weather.

278. Palau requested that Recommendation #2 not limit the guidelines that can be used to those in the recommendation alone, noting that other guidelines are key for enhancing other meteorological programmes and projects in the future that may also relate to tourism and traditional knowledge.

AGENDA ITEM 20. Media Supporting Meteorological and Hydrological Services

THE MEETING:

I. REQUESTED SPREP to use existing CROP collaboration and coordination mechanisms to:

a. explore fundraising opportunities to help amplify the voice of Pacific NMHS for a resilient inclusive Pacific through the range of communications and media capacity building and profiling activities;

b. prepare a one page-brief outlining a self-funded work-attachment programme with the Communications and Outreach Unit of SPREP, for communications staff within Pacific NMHS's, for implementation;

c. continue capacity building activities of Pacific NMHSs, such as the Mana Classes for effective communications to all audiences of their work for a resilient inclusive Pacific;

d. assess the relevance of initiating a community of practice for communications professionals and knowledge brokers in the meteorology and hydrology domain; and

e. support Pacific NMHSs to develop communications strategies and guides to empower Pacific NMHSs to amplify their work effectively to all audiences, for a resilient inclusive Pacific.

281. The SPREP Secretariat provided an update of actions undertaken to support Pacific National Meteorological and Hydrological Services (NMH) staff and media to build capacity to communicate the work of NMHS for a resilient inclusive Pacific. It also sought approval of the plans to continue working with SPREP and other relevant partners to empower Pacific NMHS staff to amplify their voices for a resilient and inclusive Pacific.

280. Samoa supported the recommendations and acknowledged SPREP for all the media activities that assisted the Samoa Met on how to effectively use the media to communicate the services to users, where it has received positive feedback. One priority area is for building capacity to facilitate information from Met Services.

281. The Cook Islands endorsed the recommendations and highlighted the importance of the media especially as the first point on amplifying the voices of Pacific NMHS important to work in collaboration with the media as they address a wide and diverse audience. The Cook Islands participated in the Mana Class and were appreciative of the tools especially Canva, viewed as an important tool to help connect with audiences, particularly on social media and looks forward to working closely with SPREP.

282. Tonga expressed support for the recommendations and emphasised the need to empower women leadership in hydrology. Tonga fully supported the media workshop to be conducted at the national level.

283. Palau requested that Recommendation # 1 with respect to 'through the range of communications' be replaced with 'through programmes of communications'.

284. The SPREP Secretariat noted the PMC recommendations, which provides clear guidance, noting the growth of the Pacific media being better informed on the science and meteorology. It was noted that in the UNFCCC COP spaces promoting the One Pacific, the recommendations are a result of the training and partnerships that SPREP has proactively sought for Pacific Members through partnerships for training. It was highlighted the importance of the details in the recommendations, be fitting of the needs and endeavours of the work of SPREP in climate change to profile the work of NMHS.

285. New Zealand requested that Recommendation # 2 be amended to recognise SPC and other regional agencies.

286. The SPREP Secretariat requested specific text from New Zealand to assist with context and clarity.

287. New Zealand requested that all the recommendations make reference to regional agencies to elevate collaboration.

288. The SPREP Secretariat noted the importance of collaboration with other regional agencies and requested that such reference also include joint fundraising efforts to support the range of work required.

289. WMO thanked SPREP for delivering the communications and media training. It was noted that the recent training was funded by CREWS, which has greatly helped training members nationally and seek to ensure that this collaboration is reflected in the recommendations. It was emphasised the importance of ensuring amplification, and building national capacity to ensure the Met Services reach the aspirations of the 2050 Strategy for the Blue Pacific Continent . Partnerships were viewed as critical to the work of the PMC and that media training and support reflect other agencies including SPC, WMO, and other UN agencies including UNDRR particularly for people with disabilities.

290. Solomon Islands expressed support for the comments shared by WMO on the importance of national level training and also acknowledged the COSPPac for the communication equipment and training. It also conveyed appreciation for the support of SPREP with the training on television, for weather forecast broadcasts on television.

291. Kiribati supported the points raised and acknowledged SPREP and other partners with their investment in communications, which are an essential part of the National Meteorological Service. It was noted that Kiribati was able to create a communications position with one year funding from New Zealand , which noting the function's priority has now been absorbed by government as a permanent position. Kiribati also acknowledged the assistance of the PACMET desk, who work on forecast training and communications training. Kiribati noted support for the earlier interventions to include in the recommendation acknowledgement of other partners working in this area.

292. Fiji acknowledged SPREP for the work provided and also supported the proposal from New Zealand and WMO to ensure that regional agencies are reflected in the recommendations.

293. It was noted by the Chair that New Zealand, SPREP, WMO, and SPC will work together to help finalise the recommendations.

AGENDA ITEM 21. Update and Progress of the Pacific Partners Coordination Mechanism

THE MEETING:

I. NOTED the status of the platform (progress, next steps and challenges).

II. NOTED the recommendations on how the dashboard can be improved and updated.

294. WMO presented an update and progress on Pacific Partners Coordination mechanisms (PPCM) to the PMC. Member countries and partners were acknowledged on data collection and updating of information in the PPCM.

295. WMO noted that the PPCM was developed in response to recommendations from PMC-5 for a centralised platform, with alignment to Early Warning for All (EW4All), Pacific Islands Met Strategy (PIMS) and Weather Ready Pacific.

296. It was noted that the PPCM is still a work in progress and appreciate ideas from PMC to strengthen data collection, analysis and monitoring at national and regional levels. As well as aligning with national strategic plans to make informed decisions.

297. Challenges noted have been the duplication of data with WMO reviewing for quality control and accuracy. PMC Members were encouraged to reconfirm focal points and ensure data is updated as the PPCM also informs the global dashboard.

298. Noted that a data visualisation tool will be developed by WMO and the PPCM data will feed into the tool. The tool will visualise all data at national and regional levels. Countries have requested for expanding the PPCM to the national level for streamlining.

299. The Cook Islands, Solomon Islands, Tonga and Tuvalu supported and endorsed the recommendations.

300. Solomon Islands requested a national version of the PPCM to display findings at the national level and also recognised the challenges in collecting national allocations from regional initiatives.

301. The countries noted the usefulness of the PPCM and encouraged the focal points to update data to enhance the PPCM.

302. WMO acknowledged the PMC members and partners in progressing the PPCM, noting the new work will be able to report on the EW4All pillars and aligned to Weather Ready Pacific.

303. WMO noted that the PPCM is also developed for all WMO regions for collaboration and data sharing. The PPCM is connected to the global WMO dashboard at the global level. However, there is a need to have data consistency which is an ongoing challenge, to avoid misalignment and duplication of efforts.

304. The Chair thanked the members for comments and endorsement of the recommendations and conveyed appreciation to WMO for the presentation.

AGENDA ITEM 22. Pipeline Initiatives

22.1 One Pacific (GCF)

THE MEETING:

I. NOTED the design details in ensuring that current regional arrangements are supported including the Weather Ready Pacific.

II. CONFIRMED support of the One Pacific Programme in that OPP will contribute in funding the Weather Ready Pacific and support current regional arrangements led by the PMC.

III. RECOMMENDED that the GCF NDAs (national designated authorities) assist through submission of no-objection-letters (NoL) for the Project Preparation Facility request to prepare the OPP proposal.

305. The SPREP Secretariat summarised the key design elements of the One Pacific Programme following the consultations with Pacific Met Directors and GCF Nationally Designated Authorities in May 2024. It also included an update with timelines on a revised concept note and the GCF process.

306. Fiji thanked SPREP for the document and invitation to be involved, which it supports and to work with NDA for the no objection letter.

307. Palau requested clarification on the 14 Pacific island countries involved. SPREP responded that it is the Pacific island parties to the UNFCCC who can access GCF funding that includes the Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. The Secretariat will work closely with the Strategic Planning, Partnership and Resource Mobilisation programme at SPREP for accessing funds.

308. It was noted by Papua New Guinea that it has progressed and the GCF funds have been distributed across agencies. Papua New Guinea expressed support for the recommendations.

309. Tonga extended full support for the recommendations and noted the timelines for the way forward and will work on the GCF NDA no objection letter.

310. Kiribati noted the request for the no objection letter, and sought more information to help facilitate the process including the concept note.

311. Federated States of Micronesia informed the meeting it is one of the 14 countries. They updated the meeting of the national process, where they will work with the Department of Finance and Administration, that includes the Secretary who is the NDA. It was noted that they also seek the support of SPREP to help facilitate the process. Federated States of Micronesia expressed support for the recommendations.

312. The Cook Islands acknowledged the support of the GCF as it is one of the 14 countries. It noted the timeline for the projects and endorsed the recommendations.

313. The SPREP Secretariat noted the there is a threshold for the no objection letters and that if the no objection letter is not received, the country will not be included in the proposal. The Secretariat sought the support of the PMC to help facilitate the process at the national level through their respective NDAs.

22.2 CREWS Programme, M&E Framework, Alignment with Weather Ready Pacific and New Project

THE MEETING:

I. ACKNOWLEDGED the two projects under preparation: Note the development of the Pacific drought project (USD 5 million) and the CREWS Pacific SIDS 3.0 project (USD 5.5 million), which aim to enhance early warning systems, climate and hydromet resilience in the Pacific region. The meeting is invited to guide and encourage alignment of these two projects with Weather Ready Pacific.

II. SUPPORTED project proposals and validation workshops: support the upcoming project preparations and the planned sub-regional validation workshops in Q4 2025 and provide support to ensure their successful and timely development.

III. RECOGNISED the CREWS Accelerated Support Window (ASW) as an effective modality to respond rapidly to technical assistance requirements of NMHSs in the region (up to USD 250,000).

IV. SUPPORTED the process to scale up projects in the Pacific, under the framework of the GCF/CREWS Scaling Up, and in collaboration with the National Designated Authorities (NDAs), NDMOs, NMHSs and other key partners, as an effective and innovative mechanisms to facilitate access to GCF funds.

314. The SPREP Secretariat provided an update on the status of the Climate Risk and Early Warning Systems (CREWS) initiative in the Pacific and outlined efforts to align future CREWS investments with the Weather Ready Pacific initiative. Information was also provided about the two CREWS projects under preparation for USD 10.5 million, and two new financing windows available to Pacific countries through the Green Climate Fund Simplify Approval Process (GCF SAP)/ CREWS Scaling Framework, and the CREWS Accelerated Support Window (ASW). The SPREP Secretariat sought guidance and support for the initiatives to enhance early warning systems through climate, hydrology, weather and disaster risk reduction services in the Pacific.

315. Tonga supported, acknowledged and noted the support to TMS. It noted the support required for human resources at the national level to support project work (CREWS) and request CREWS to work closely with Weather Ready Pacific.

316. The Cook Islands and Solomon Islands supported the recommendations.

317. Papua New Guinea acknowledged the support from CREWS especially for the Drought project.

318. Palau supported the recommendations and requested the CREWS and UNDRR to assist with the establishment of the relationship between Weather Service and their NDA.

319. Tuvalu requested CREWS to collaborate with UNDRR to notify the Weather Services. It expressed full support for the recommendations.

320. Niue acknowledged the importance of the CREWS1.0 for the support on community based early warnings and CREWS2.0 for the support towards community engagement. Niue seeks to install a sheltered ramp in one of its churches, but requires more financial support, as funds are not enough. Niue noted the importance of NDAs' recognising the vital role of NMHS at the national level. It also requested that SPREP influence, where possible and relevant, the Pacific political agenda.

321. Federated States of Micronesia supported the recommendations and shared that they do not know their NDA.

322. Samoa acknowledged the support from CREWS on their activities which included MCH tool and community accommodation. Samoa also expressed support for the recommendations.

323. Fiji supported the recommendations and conveyed appreciation to CREWS including Australia for their support and presence.

324. Kiribati conveyed appreciation for the update provided and supported the recommendations. The support of CREWS provided to Kiribati on the Meteorological Act, strategic plans and integrated framework on Weather, Climate and Ocean was acknowledged. It was noted by Kiribati that they do not have resources to develop funding proposals at the national level and seek support from other agencies and partners.

AGENDA ITEM 23. Emerging National Meteorological and Hydrological Services (NMHS) Priorities

THE MEETING:

I. ACKNOWLEDGED the emerging priorities identified by the National Meteorological and Hydrological Services (NMHS).

II. RECOMMENDED the Emerging Regional Priorities be tabled at the Weather Ready Pacific Steering Committee to guide funding considerations for Weather Ready Pacific Planning of Phase 1 activities.

III. REQUESTED the Secretariat to map out all relevant programmes, including support from Weather Ready Pacific, and ensure that funding from these initiatives is effectively coordinated to address the identified priorities.

325. The SPREP Secretariat presented an overview of emerging priorities within the National Meteorological and Hydrological Services (NMHS) and proposed actionable recommendations for mobilising resources to effectively address and support these critical priorities.

326. The Cook Islands, Kiribati, Samoa, Tonga, and Tuvalu supported and endorsed the recommendations.

327. The Cook Islands and Tuvalu expressed gratitude for the work put into preparing the paper.

AGENDA ITEM 24. Other Matters

24.1 RA-V Tropical Cyclone Committee Statement

THE MEETING:

I. NOTED the Open Letter (appended to this Paper) from the Chairpersons of the World Meteorological Organization Regional Association V Tropical Cyclone Committee for the South Pacific and South-East Indian Ocean (WMO RA V TCC) and the Regional Sub-programme Management Team for the WMO Severe Weather Forecasting Programme for the South Pacific (RSMT SWFP-SP).

II. ACKNOWLEDGED the support of WMO programmes and activities in the region that will help to achieve the goals of the Weather Ready Pacific Programme.

III. PRIORITISED as a matter of urgency the identified needs through programmes and initiatives such as Weather Ready Pacific and EW4All.

IV. CALLED on the international community to further advance research on tropical cyclones and develop case studies to allow progress in their forecasting and warning, through all existing programmes including the WMO World Weather Research Programme.

328. New Zealand presented Agenda Item 24.1: RA-V Tropical Cyclone Committee Statement, which sought to elevate the PMC needs identified by WMO Members during recent meetings of the WMO Regional Association (RA) V Tropical Cyclone Committee (hereafter, the "Committee") for the South Pacific and South-East Indian Ocean, and the Regional Sub-programme Management Team (RSMT) for the WMO Severe Weather Forecasting Programme for the South Pacific (SWFP-SP).

329. Palau suggested including "North Pacific" alongside "South Pacific" in discussions related to SWFP-SP.

330. New Zealand noted that SWP and the Indian Ocean are part of WMO's organisational structure.

331. WMO announced plans for a new SWFP window in northern Australia and Southeast Asia to address severe weather, filling gaps not covered by existing programmes.

332. Papua New Guinea reported that the severe weather project has transitioned from the demo phase and is happy to hear of the programme considerations in the Indian and Pacific Oceans, allowing for the inclusion of Papua New Guinea and Timor-Leste.

333. Samoa supported the recommendations but requested the inclusion of a call for tropical cyclone research in the Open Letter due to observed weather pattern changes, including cyclones drifting to mid-latitudes.

334. New Zealand stated that the Open Letter is an outcome of the TCC Meeting and the PMC may not be the place to change it.

335. WMO responded to Samoa and agreed that research takes time and emphasised that there are mechanisms for addressing research needs, suggesting that TCC outcomes may not be the right place for modifications.

336. Tonga expressed support for the recommendations and the points raised by Samoa and WMO, emphasising the need to connect research findings to operational practices.

337. Niue endorsed the recommendations, highlighted the importance of severe weather forecasting for community resilience, and emphasised the need for a platform to voice changes in TCC weather patterns and their impact on local fishing for example. It was noted that research opportunities maybe utilised through the PCCC and UNFCCC platforms for PhD holders to support research on TCC behaviour affecting Pacific communities.

338. Samoa reiterated the importance of addressing research issues, particularly the intensity and characteristics of cyclones, while noting WMO's clarification.

339. WMO suggested enhancing the third recommendation language to 'initiatives such as WPP and EW4All, building on all relevant research and case studies, updates and progress.'

340. SPREP requested New Zealand, Samoa, and WMO contribute relevant text for the consideration of the drafting team.

341. Niue proposed including case studies in the documentation to support findings.

24.2 Utilisation of meteorological satellite information provided by Himawari and future collaborations and Initiatives

THE MEETING:

I. NOTED that Japan's longstanding endeavours to enhance the capacities of NMHSs in the Pacific for observation, tropical cyclone forecasting, and satellite analysis have been done by close collaboration among the Pacific NMHSs, JICA and JMA, and connected to the EW4All and Weather Ready Pacific initiatives.

II. NOTED that Japan will continue to support Pacific island countries (PMC members) through new projects. These projects aim to further utilisation of Himawari data through updating HimawariCast receiving systems and enhance capability of satellite data analysis, and to develop regional hubs such as Regional Training Centre (RTC) and Regional Instrument Centre (RIC), contributing to the successful implementation of EW4All and Weather Ready Pacific.

III. ACKNOWLEDGED that Japan has experienced challenges in some projects to ensure the mid- and long-term sustainability of NMHSs. These challenges have underscored the importance of cooperative relations with other relevant partners and regional frameworks to secure sustainability. The key to success is a close coordination between NMHSs and partners: NMHSs must implement feasible business plans, and partners must secure mid-term resources.

342. The presentation provided information and updates on the cooperation of the Japan Meteorological Agency (JMA) and Japan International Cooperation Agency (JICA) to share ideas with PMC participants, regarding the significance of lessons learned on regional cooperation in the Pacific.

343. Tonga acknowledged and thanked Japan for the support.

344. Kiribati, Solomon Islands and Vanuatu acknowledged the support of JICA and JMA, particularly for the continuous support of forecasting capabilities. Vanuatu also noted appreciation for the support on geological hazards.

345. Palau noted the coordination partnership with JMA and if it can further elaborate on potential areas of collaboration. JMA noted it will follow-up with Palau on a bilateral basis. JICA shared they are upgrading the utility of data and the analytical technical needs, which will be further enhanced in the next 2025 satellite analysis, that will be provided in detail next year.

346. Tuvalu acknowledged the support of JMA and JICA for the training on communications and forecasting. It is hoped they will extend the training to forecasting as a new tool, to enhance the display of information.

347. Samoa thanked JICA for the presentation and supported the recommendations from JICA regarding Himawari data support, that has enabled access to high resolution data. Samoa further thanked WMO and also acknowledged the support of JICA and Government of Japan for their continuous work through the Pacific Climate Change Centre in Samoa. It was noted that there are many beneficiaries through the group training supported by JICA in collaboration with JMA. Samoa expressed sincere appreciation for the support, as it is an excellent training package on forecasting, that it hopes will be expanded and continued.

24.3 China Meteorological Service

348. The China Meteorological Service expressed sincere appreciation to the Secretariat for the invitation. It was noted that China is facing growing challenges of increasingly frequent extreme weather and climate events including recently a severe super typhoon.

349. The China Meteorological Service shared that it seeks cooperation with PMC members, which supports Weather Ready Pacific and believes there is much common ground.

350. It proposes to also join in promoting implementation of the UNEW4All initiatives. It was also noted that it can integrate new technologies like artificial intelligence models and also wants to provide early warning technologies for PMC members.

351. The China Meteorological Service informed the PMC of plans to be part of future meteorological technology exchanges and capacity building initiatives. It holds many specialised platforms such as global information system centres and collaborations with other WMO and regional centres. It aims to work with PMC members, and be supportive of future monitoring, forecasting, and warning systems. *Refer to annex for copy of presentation.*

24.4 United States National Weather Service

THE MEETING:

I. NOTED NOAA's international capacity building efforts with the broader Pacific Meteorological Council community.

II. RECOGNISED advance cooperative efforts with NOAA as bilateral contributions that align with the priorities identified in Weather Ready Pacific.

III. PARTICIPATED in the Pacific Risk Management Ohana (PRiMO) meeting March 17-20 in Honolulu, HI. (www.primohui.org)

352. Dr. Dan Muller, Director of International Affairs for the United States National Weather Service provided an update on the PMC work underway through the PREPARE plan and identified a range of cooperative activities that they work on with more details in its country poster. *Refer to annex for copy of intervention.*

AGENDA ITEM 25. Review and Adopt the Report of PMC-7

THE MEETING:

I. CONSIDERED the Report of PMC-7; and

II. APPROVED in principle the Report of PMC-7.

AGENDA ITEM 26. Venue for the Eighth Meeting of the Pacific Meteorological Council (PMC-8) and the Fourth Ministerial Meeting on Meteorology (PMMM-4)

THE MEETING:

I. ENDORSED Hawaii, United States as the venue for the Eighth Meeting of the Pacific Meteorological Council (PMC-8) and the Fourth Ministerial Meeting on Meteorology (PMMM-4) in 2026.

AGENDA ITEM 27. Closure of PMC-7

THE MEETING:

I. CONVEYED sincere appreciation to the Vanuatu Government and in particular through the Chair of the PMC-7 the Vanuatu Meteorology and Geo-hazards Department for the excellent organisation and hosting of the PMC-7.

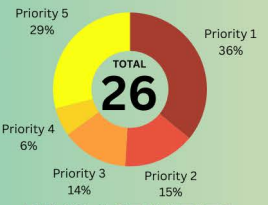
353. The closing remarks were delivered by the Director General of SPREP, the representative of WMO, and the Chair of PMC-7 Vanuatu. The partnership involved in the coordination, support and organisation of the PMC-7 was acknowledged with sincere appreciation and extended to the Vanuatu Government and staff of the Vanuatu Meteorology and Geo-hazards Department, and the Secretariats of WMO and SPREP.

354. Upon the conclusion of the closing remarks the Chair declared the seventh Meeting of the Pacific Meteorological Council officially closed. The WMO Representative for the South-West Pacific delivered the closing prayer.

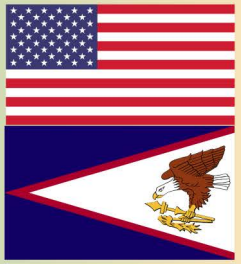
American Samoa National Weather Service

Summary

American Samoa (AS) is a United States (US) Territory in the South Pacific. Operating 24/7, WSO Pago Pago falls under the US National Weather Service (NWS) - a part of the US Federal Government. The US NWS Office, located near the Tafuna International airport on Tutuila Island, delivers weather watches, warnings, and advisories. US NWS's mission is to provide weather, water, and climate data, forecasts, warnings, and impact-based decision support services for the protection of life and property and the enhancement of the national economy. This is achieved through its vision of a Weather-Ready Nation, in which the country is prepared for, and responds to, weather, water, and climate-dependent events. Additionally, WSO Pago Pago is equipped to issue tsunami warnings for local events, such as the 2009 tsunami and the 2022 Hunga-Tonga volcanic eruption.



PIMS ACTIVITIES



Met Legislations

- As a territory of the US, the US Congress passed the Weather Act and Forecasting Innovation Act of 2017.

Staffing Overview

- 1 meteorologist-in-charge, 5 meteorologists, 3 meteorological technicians, 1 electronics technician, and 1 administrative assistant.
- Challenge: staffing shortages - struggling to motivate Samoan students to pursue meteorology.
- The Samoan language is crucial for offering impact-based decision services support to important stakeholders and the community.

Communications Overview

- ASTCA, the local communications company, offers high-speed internet service through fiber optics.

Training Initiatives for Capacity Building

- Training plans are tailored to each staff member's expertise and accessed via an internal training portal.
- Encompass accessible resources, and technical skills and expertise.
- Residential sessions are held at the Training Center in Kansas City and other locations.
- Specialised guests conduct in-house customised training sessions.
- Regional training sessions are accessible, but participation relies on local funding availability.

Extreme Climate Threats

- Tropical cyclones.
- Heavy rainfall.
- Droughts.
- Earthquakes.
- Tsunamis.
- Heat waves.
- Coastal flooding.

Met Input to National Strategic Plan

- Input is primarily provided through the NWS Pacific Region Headquarters and through any opportunity presented by the National Headquarters to provide input.

Infrastructure Overview Gaps & Urgent Needs

- WSO Pago Pago operates 24/7 at the US NWS headquartered near the Tafuna International airport on Tutuila Island.
- NWS installs, operates, and maintains various electronic, electro-mechanical, data acquisition, and communication equipment or computer systems, including field equipment.

Finance & Investment Overview

- All project funding and facility improvements are provided by the US Government.

Climate Services Summary

- Gathers surface and upper-level observations, oversees the Cooperative Observer Program network, and offers public daily climate data.
- Data obtained from observation networks is sent to the National Center for Environmental Information, and distributed as certified data.
- The Climate Prediction Center (CPC) monitors climate.
- Tropical Cyclone Outlooks are released prior to the start of hurricane seasons.

NHMS Key Achievements

- Installation of two new generators.
- First heat advisory product.
- Completed maritime hazard maps for Pago Pago Harbour, and Aunu'u and Auasi Small Harbours.
- Assisted USGS in deploying and installing four seismometers and raspberry shakers.
- Completion of Tropical Cyclone curriculum refresher training for all staff.
- Completion of IDSS Boot Camp training by all operational staff.

Presence of Strategic Plan for NHMS

- National Weather Service Strategic Plan (2023-2033).

Projects: Completed, Current & Planned

- NWS's projects are prioritised, planned, and implemented in relation to the National Weather Service Strategic Plan (2023-2033).

Marine Weather Overview & Products

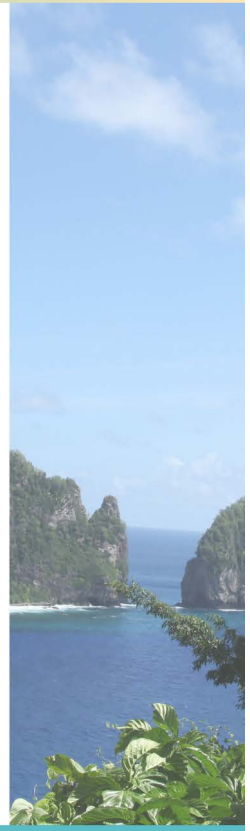
- Coastal waters: Synopsis and a 5-day forecast including winds, seas, and significant weather.
- Marine weather information:
  - Watches: Storm Watch, Gale Watch, Tropical Storm Watch, Hurricane Watch.
  - Warnings: Storm Warning, Gale Warning, Tropical Storm Warning, Hurricane Warning.
  - Advisories: Small Craft Advisory.
- All other areas are covered by the Honolulu Forecast Office High Seas Forecast.

In-Country Sector Engagement

- Federal government: Pacific Tsunami Warning Center, CPC, US Geological Survey, Coast Guard, Federal Emergency Management Agency, and NOAA line offices.
- AS government: Office of the Governor, Departments of Public Safety, Public Works, Education, and Commerce, Port, Power, and Telecommunications Authorities, and the LBJ Medical Center.
- Local government: The Office of Samoan Affairs, comprised of village chiefs and mayors.
- Non-government: the American Samoa Red Cross, different church denominations, and other nonprofit organisations.

Priorities & Gaps

- The main priorities fall in line with the priorities of the US National Weather Service and the goals outlined in the Strategic Plan 2023-2033.
- Successfully implement the AI LILT Machine Learning project, translating all products from English to Samoan, to ensure NWS's products reach the communities.
- Boost regional collaboration through active participation in regional discussions and reinstating meetings between the Two Samoa Meteorological Offices.



PACIFIC METEOROLOGICAL COUNCIL

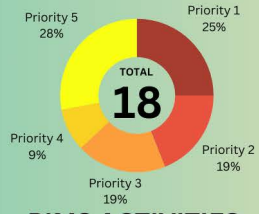
Meteorologist-In-Charge: Elinor Lutu-McMoore

elinor.lutu-mcmoore@noaa.gov

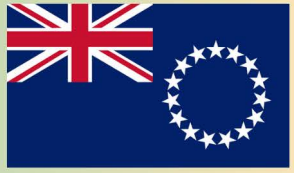
Cook Islands Meteorological Service

Summary

Under the Ministry of Transport, Cook Islands Meteorological Service (CIMS) is the lead meteorological agency in the Cook Islands, mandated to provide reliable meteorological, aviation, and marine services under the Meteorological Service Act 1995-96. With a gender diverse team of 15 staff (9 male and 6 female), and a reduction of the average staff age from 40 to 18, CIMS is proud of its progression over the last 12 months. CIMS endeavours to employ another three staff with future development, and is committed to enhance aviation, and climate and ocean services, as well as severe weather monitoring, and impacts on populated Islands. Climate services have been on the rise over the last two years, extending opportunities towards staff to train under appropriate climate services in Australia and New Zealand. This has enhanced CIMS's capabilities to produce reliable climate products and services to local, national, and international stakeholders.



PIMS ACTIVITIES



Met Legislations

- CIMS's primary mandate resides within the Meteorological Service Act 1995-96.

Staffing Overview

- CIMS has a total of 15 staff (9 male and 6 female).
- CIMS has an HR development plan with the Ministry of Transport to identify internal and external training for encouraging more staff and higher qualifications.

Communications Overview

- Primary communication modes for data from remote systems are DCP and satellite.
- DCP is used through Vodafone IP with back-up services provided by the government.
- GOES 16 satellite products are used for weather and tropical cyclone forecasting.
- Additional products are received from Chinese and Japanese satellites.
- Seasonal forecasts - delivered via email, Facebook, CIMS website, TV, and newspapers.

Training Initiatives for Capacity Building

- Marine.
- NCOF.
- YSSP Workshop.
- Climate Workshop.
- Oceans Workshop.
- BIP-MT Training.
- Satellite Workshop.
- Basic Observers.
- QMS.
- Media.

Extreme Climate Threats

- ENSO phases.
- Expected number of cyclones in summer.
- Drought and wet periods.
- Onset of dengue fever.
- Increasing strong wind frequencies.
- Increasing high seas with possible coastal inundation and flooding.

Met Input to National Strategic Plan

- As mandated by the Meteorological Service Act 1995-96, CIMS is the official channel for all weather-related warnings for the Cook Islands.
- This means that CIMS can contact all relevant agencies that are instrumental in implementing and operationalising CIMS's and their own work.

Infrastructure Overview Gaps & Urgent Needs

- Office refurbishments with computer upgrades and instrument installations planned in late-2024.
- Includes a solar panel farm installation to provide electricity for the office.
- Plans are set for a radar installation on the west side of Rarotonga for aviation and cyclone monitoring, but maintenance needs staff training.
- AWSs installed on 13 of 15 islands.
- Aviation and marine observation are priority areas for development.

Finance & Investment Overview

- CIMS receives support from government funding, as well as other external projects and international donors.

Climate Services Summary

- SCOPIC; CLIKP; EAR Watch; METPI for seasonal forecasting, focusing on rainfall and temperature.
- CIMS sights real-time information which is automatically ingested into a Climate Database Management System to produce climate and weather products.

NHMS Key Achievements

- Audit training.
- Management and leadership.
- Upper air training.
- Maintenance.
- Instrumentation.
- AWS.
- Aviation training.
- Climate training.
- Tide-gauge training.
- Satellite training.
- EAR Watch training.
- Marine training.
- Trigger workshop.

Presence of Strategic Plan for NHMS

- The Ministry of Transport has a strategic plan in place, with CIMS falling under the classification of climate change.

Projects: Completed, Current & Planned

- Project 1 - Green Climate Fund - USD$8 million.
- Project 2 - Comprehensive Test Ban Treaty (CTBT) USD$5,000.
- Project 3 - Aviation Cost Recovery - USD$19,000.
- Some future project collaborations and proposals include tide gauges for tide charts , ship reports, climate products, Pacific Weather Ready, and TV Weather.

Marine Weather Overview & Products

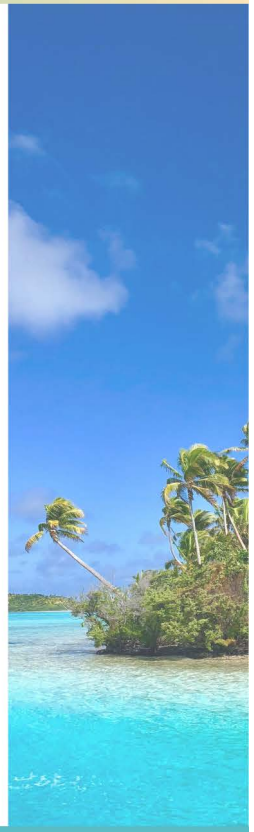
- Very little marine products provided.
- Tide charts and lunar months are distributed to farmers and fishermen to assist with decision-making for farming and fishing.
- Northerly wind advisories are issued when wind speeds reach 15 knots or greater.
- CIMS is currently engaging with port authorities to develop working relationships for marine communities.

In-Country Sector Engagement

- Agriculture - rainfall.
- Health - rainfall and temperature.
- Water division - EAR Watch.
- Outer islands - EAR Watch.
- Marine resources - marine bulletins.

Priorities & Gaps

- Need for tertiary-level qualified staff to enhance quality of climate, ocean, and aviation products and services.
- Need for developing climate, ocean, PWS and aviation products and services.
- Need for community engagement support programs to increase CIMS's accessibility.
- Need for collaborating with external agencies to fund ongoing infrastructure development.
- Need for external funding assistance for in-country activities such as community outreach.



PACIFIC METEOROLOGICAL COUNCIL

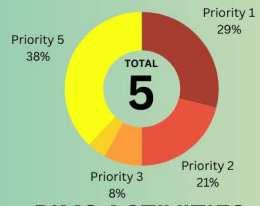
Director: Maara Vaiimene

maara.vaiimene@cookislands.gov.ck

Federated States of Micronesia Weather Service

Summary

The Federated States of Micronesia's (FSM) National Weather Service (NWS) is FSM's primary meteorological service responsible for delivering reliable and accurate weather, climate, and oceans data to the FSM government, stakeholders, and members of the FSM community. Supported through NOAA, and represented in the government's National Disaster Response Plan and pending National Strategic Plan for Weather, Water, and Climate Services, the NWS continues to ensure that timely, necessary, and standardised products are delivered appropriately, and are easily accessible to all its stakeholders. The NWS endeavours to support growth and capacity development within its office.



PIMS ACTIVITIES

Met Legislations

- The Compact of Free Association (COFA) - expresses US's financial commitment to FSM.
- Amended on the 17th of December 2003, and enacted as a US Public Law 108-88, followed by permanent financial assistance through to 2023.
- Title Two, Article II: Program Assistance, Section 221 - the US shall provide certain services and related programs without compensation to the FSM, including FSM WSOs.

Staffing Overview

The NWS has a total of 19 staff:

- 10 undergraduates.
- 1 MET graduate.
- 5 electronics technicians.
- 3 facility technicians.

Communications Overview

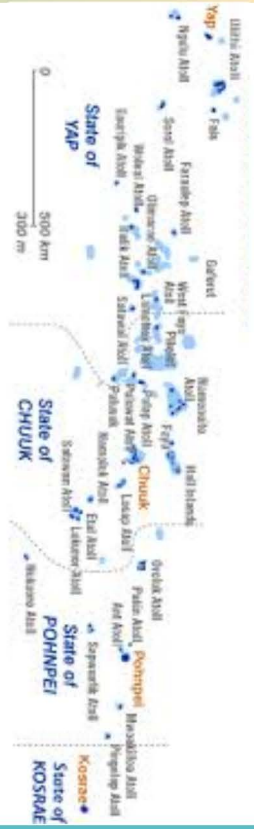
- Oceanographic and hydro-meteorological data from remote stations are communicated via HF radio, Chatty Beetle, and the Internet (Facebook, Messenger, and WhatsApp).
- The Himawari satellite is the most widely used and accessed for NSW's services.
- All products are produced by the Weather Forecast Office (WFO) in Guam.
- Products delivered to the public mainly rely on the Micronesian Coastal and Island Forecasts.

Training Initiatives for Capacity Building

- Palau Early Action Rainfall Watch NMS Training Workshop.
- Introduction to Climatology Workshop COSPPac.
- Common Alerting Protocol (CAP) Training.
- Ongoing Pacific Desk Training at Weather Forecast Office (WFO), Guam.
- Various WMO training opportunities.

Extreme Climate Threats

- Heavy rainfall.
- Drought.
- Tropical cyclones.



Met Input to National Strategic Plan

- The FSM government approved the FSM National Disaster Response Plan (NDRP) 2016 in April 2017 and established a National Disaster Committee (NDC).
- The NWS is a member of the NDC.
- The NWS is currently supporting the review and endorsement of the National Strategic Plan for Weather, Water, and Climate Services.

Infrastructure Overview Gaps & Urgent Needs

- Has three working Upper Air Stations in Pohnpei, Yap, and Chuuk alongside its three offices.
- Has no AWSs at the moment.

Finance & Investment Overview

- Receives funding from the US Government through NOAA.
- The three offices in Pohnpei, Yap, and Chuuk are fully funded under a five-year contract awarded to the FSM government.

Climate Services Summary

- The NWS currently provides climate forecasting for temperature and rainfall, but seeks to cover wind, solar radiation, and clouds in the future.
- Monthly and seasonal rainfall outlooks, temperature outlooks, tropical cyclone, coral bleaching, sea level, tide data, drought monitoring, and ENSO updates are key products produced.
- Climate and ocean bulletins are issued monthly.

NHMS Key Achievements

- Climate and Ocean training and forecasting (OCOF, EAR Watch).
- Common Alerting Protocol (CAP) Training.
- Upgrading Upper Air observations from TRS to MROS.

Presence of Strategic Plan for NHMS

- The National Strategic Plan for Weather, Water, and Climate Services - pending review and endorsement.
- Aims to ensure that FSM NWS is placed into FSM national government's organisational structure.
- Will enhance partnerships with stakeholders, increase human capacity, performance management, and operational efficiency, and increase observational networks.

Projects: Completed, Current & Planned

- COSPPac is a current project supporting the NWS through activities such as Early Action Rainfall (EAR) Watch, and Ocean and Climate Outlook Forums (OCOF).

Marine Weather Overview & Products

- Current marine products include coastal waters forecasts, high surf advisories, and small craft advisories.
- Wind wave and swell heights are available through the Micronesian Coastal Forecasts.
- If further consultation is required, end users will either call or walk in to gain more in-depth information.

In-Country Sector Engagement

- The NWS issues monthly climate and ocean bulletins to all sectors including the Department of Environment Climate Change and Emergency Management (DECEM), the Disaster Coordinating Office (DCO), Energy, EPA, Health, Agriculture, Women's Council, Fisheries, and Tourism.

Priorities & Gaps

- The NWS seeks improved communication systems, as currently, a big challenge for the service involves communicating to remote areas and maintaining active stakeholder engagements.

PACIFIC METEOROLOGICAL COUNCIL

Director: Johannes Berdon

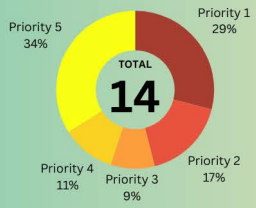
johannes.berdon@noaa.gov

Fiji Meteorological Service

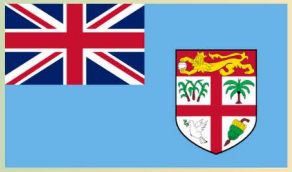
Summary

The Fiji Meteorological and Hydrological Service (FMHS) operates under the Ministry of Public Works, Meteorological Service, and Transport. As part of a large and diverse ministry that includes the Department of Works, Department of Energy, Government Shipping, and Transport, FMHS collaborates with key statutory bodies such as Energy Fiji Limited (EFL), Fiji Roads Authority, Water Authority of Fiji, Maritime Safety Authority of Fiji, and Land Transport Authority.

Our mandate within the Meteorology Portfolio is to deliver timely and reliable weather, hydrologic, and climate information to the public, enhancing preparedness and resilience before disasters strike. FMHS has received certification from the Civil Aviation Authority of Fiji to provide Aviation Meteorological Services for air navigation, and our Climate Service is ISO 9001:2015 certified. We are also on a progressive journey towards certification in Marine Services and the Public Weather Service by 2027.



PIMS ACTIVITIES



Met Legislations

- The Fiji Meteorological and Hydrological Act was enacted by the Fiji Parliament in July 2024.

Staffing Overview

- As of 2024, the FMHS has a staffing total of 123 positions, 14 of which are vacant.
- The three output divisions (Forecasting Centre, Hydrology Division and Climate Services Division) provide services and outputs to a diversity of end- users in government, private sector, NGOs, and the community.

Communications Overview

- FMHS uses global NWP model output (GFS, ECMWF), providing text-based forecasts from it.
- FMHS is now operationally using the downscaled model for the Fiji region.
- For general forecasts, FMHS communicates directly to radio, TV, and newspapers and sends out public bulletins five times per day.
- Social media is also used (Facebook and Twitter).
- FMS mobile app - yet to be launched - will also deliver general forecasts.

Training Initiatives for Capacity Building

Includes but is not limited to:

- Meteorology and atmospheric science.
- Climate and disaster risk reduction.
- Technical training on instruments.
- Marine and coastal meteorology.
- Higher education and long-term programs.
- Other specialised training, workshops, and conferences (CAP, COP, SID4).

Extreme Climate Threats

- Heavy rainfall, tropical cyclones, diseases, coastal flooding, heat waves, drought.
- Early Action Rainfall (EAR) Watch bulletin issued on a monthly basis. Contains information on rainfall for the previous 3, 6 and 12 months.
- This is disseminated to our disaster managers in various organisations, including NDMO.
- FMHS works with Ministry of Health on an early warning system for outbreak of dengue, typhoid, leptospirosis, etc.

Met Input to National Strategic Plan

- 5 and 20 year national development plan incorporates the objective of net-zero global GHG emissions by 2050 for Fiji.
- It is already embedded in the Ministries Corporate Operational Plan (COP), on annual targets for the department, in terms of operations.

Infrastructure Overview Gaps & Urgent Needs

- Weather observation network consists of 33 manual and 28 automatic weather stations.
- One upper-air observation at the Nadi radar site.
- Two Doppler radars, one C-band dual pole radar.
- Hydrological observation network consists of 67 telemetered stations.
- Number of stations sending data for global and regional use is low with poor delivery and quality.
- Uncoordinated donor agency programs make it difficult for a harmonised observation network.

Finance & Investment Overview

- Funding for the FMHS derives from government support and regional projects.

Operating expenditure for 2024 includes:

- Staff, travel, and communication.
- Purchase of goods and services.
- Maintenance and operations.

Capital expenditure for 2024 includes:

- Construction and capital purchases.

Climate Services Summary

- Current WMO Climate Service: Class 3.
- Forecasts rainfall and temperature, with the aim to forecast waves and winds in the future.
- Have an updated climate science publication.
- Tools used to provide seasonal forecast - CLIKP, ACCESS-S, SCOPIC, and PICASO.
- Models used to provide seasonal forecast on a monthly basis: ECMWF, APCC, KMA, UKMO, WMO consensus, NCEP.

NHMS Key Achievements

- Storm surge training and forecasting.
- Coastal inundation forecast.
- High-resolution wave forecast.
- Impact-based forecasting and training.
- Modelling training.
- Verification training.
- Tropical cyclone forecasting training.
- The establishment of the Fiji Meteorological and Hydrological Act.

Presence of Strategic Plan for NHMS

- FMHS is now reviewing its Strategic Development Plan (SDP) 2021- 2024.
- The Strategic plan aligns with the Ministry of Public Works, Meteorological Service and Transport.
- It also aligns with the PIMS for 2017-2026 and it also aligns with the 5 year and 20 year National Development Plan.

Projects: Completed, Current & Planned

- Planned - Labasar Radar upgrade to dual polarisation.
- Completed - Nausori Radar Upgraded in 2024.
- Completed - AWOS Network installed in 2019: set at Nadi International Airport only and with thresholds for the safety of airlines and aviation industry requirements.
- Planned - Upper Air Programme - Currently only Nadi is able to conduct weather balloon flights.

Marine Weather Overview & Products

- Marine products: Marine Weather Bulletin for Fiji, South West Pacific Marina Weather Bulletin, WOPS (for gale warning), storm surge warnings, and swell warnings.
- Ocean/marine forecasts are provided but there is little ocean observational equipment in Fiji.
- So forecasts are based on global models and provide basic forecasts of ocean roughness.
- SPC has been engaging with Fiji Met in this space.

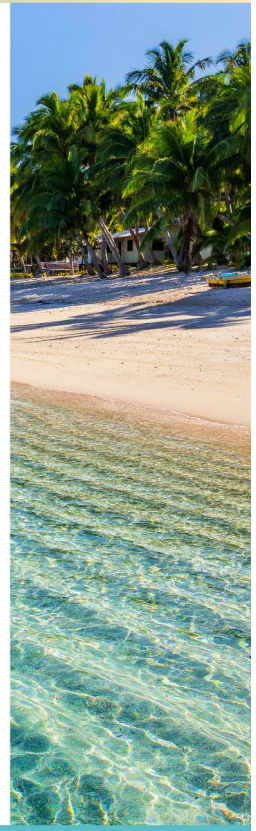
In-Country Sector Engagement

Includes but not limited to:

- EFL.
- Fiji Sugar Cooperation/ Sugar Research Institute of Fiji (FSC/SRIF).
- Fiji Airports Ltd.
- EFL/FSC/SRIF are issued tailor made products while the rest are issued with Early Action Rainfall (EAR) Watch, Climate Outlook and Ocean Outlook.

Priorities & Gaps

- More forecasters with WMO class 1 qualification.
- More scholarships to send graduates to relevant institutions.
- High Performance Computer (HPC) nodes and more storage.
- Upgraded laptops for forecasters.
- Establishing automatic graphical product generation and data integration.
- Developing tailor-made products for different sectors and organisations.



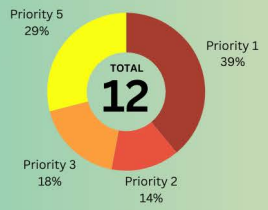
PACIFIC METEOROLOGICAL COUNCIL

Director: Misaeli Funaki misaeli.funaki@met.gov.fj

Kiribati Meteorological Service

Summary

Kiribati Meteorological Service (KMS) is a division under the Office of the President (Office of Te Beretitenti) comprising 36 staff, including support personnel, all aligned with a common vision: "To build a resilient nation by supporting decisions that protect and save lives, safeguard property, enhance livelihoods, and accelerate the socioeconomic development and green recovery of Kiribati and all I-Kiribati." The mission statement underscores the commitment to offer timely. actionable. accessible, and user-oriented weather, climate, and ocean services to all I-Kiribati, visitors, and stakeholders. Key achievements of the KMS include the enactment of Kiribati's inaugural Meteorological Act (Meteorological Act 2021) and the expansion of the Automatic Weather Station network, among others. These accomplishments stand as testament to the collective commitment to advancing weather. climate and ocean services in Kiribati.



PIMS ACTIVITIES

Met Legislations

- Kiribati has the Meteorological Act 2021.
- An establishment of a regulation under the Act is required.

Staffing Overview

- Human resource development is an integral component of KMS and the broader government strategy.
- KMS comprises qualified leading technical staff with meteorology and bachelor qualifications.
- KMS managed to create new positions - an Oceanographer, an Outreach Officer, and a Senior Forecaster.
- More forecasters positions are required.

Communications Overview

- Mode of communication for transmitting data from remote stations - telephone and internet.
- Mode of transmitting data to the Global Data Network - email or phone (for no internet).
- Starlink currently improving connection at 2 main offices (Tarawa and Kiritimati).
- A dedicated Outreach Officer assists with making services accessible to all communities.

Training Initiatives for Capacity Building

- Require advanced Master-level training for senior officials.
- More training is required for administrative staff.
- Full BIP-MT training is required for meteorological staff.
- Almost all staff have attended short term trainings and workshops in the region and in country.
- All staff attended in-country refresher and basic meteorological training in country.
- BIP-M (Meteorologist training) to 3 forecasters.

Extreme Climate Threats

- Extreme drought.
- Coastal inundation and flooding.
- No robust Early Warning System (EWS) in place for extreme events.
- Assists in drought analysis and extreme drought monitoring.
- Basic information provided to support extreme spring tides events and coastal inundation due to tides .
- Wind, rainfall and, coastal inundation are prioritised for an EWS.

Met Input to National Strategic Plan

- One of five the Key Priority Areas (KPAs) under the Kiribati Development Plan 2020-23 is KPA 4 - Protecting our Environment and Strengthening Resilience Resilience in which Office of Te Beretitenti is the leading Ministry.
- The Kiribati Cision for 20 Years (KV20) also prioritises advancement of Meteorological Services and equipment under Pillar 2 on National Security.

Infrastructure Overview Gaps & Urgent Needs

- Number of automatic weather stations increased to eight AWSs and two AWOSs.
- Main office has been extended to support new positions including a meeting room.
- Need - a new, big main office to support staffing increases and well-equipped to support weather forecasting and observation services, and ICT.
- More support is required for ICT (database, quality control on weather observations) and communications.

Finance & Investment Overview

- Significant annual increase in budget in 2024 due to a salary increase for all government employees in Kiribati.
- Despite this, the budget remains insufficient to adequately cover all of the KMS's necessary activities.
- Most developments and major activities within KMS are project-based, but more support is still required to initiate prolonged planned activities including traditional knowledge, improving ocean monitoring, office transport (Kiritimati stations), and some other major developments.

Climate Services Summary

- Tools/models used to provide seasonal forecasts: SCOPIC, ACESS-S.
- Forecasts rainfall and air temperature, with hopes to eventually forecast rainfall intensity/duration and coastal inundation.
- Seasonal forecasts communicated via email and Facebook.
- No climate science publication.

NHMS Key Achievements

Include but are not limited to:

- Creation of new positions (Senior Forecaster, Outreach Officer, Oceanographer).
- Upgrading all station mercury thermometers to digital thermometers.
- Development of the Meteorological Act 2021.
- Development of the KMS strategic Plan and Framework for Climate Services 2021-2025.
- Already started with an audit/certification on Aviation Meteorological Services - Part 174.

Presence of Strategic Plan for NHMS

- Kiribati has a Strategic Plan and Framework for Weather, Climate and Ocean Services 2021 to 2025.
- Most of KMS's activities under its Strategic Plan and Framework on Weather, Climate and Ocean services are also reflected in the Office of Te Beretitenti Ministerial Operational Plan (MSP) for the first four years (2024-2027)
- There are also KMS activities reflected in the Kiribati Joint Implementation Plan for Climate Change and Disaster Risk Reduction.

Projects: Completed, Current & Planned

- Ongoing: Global Upper Air Network (GUAN), COSPPac, ClimSA 3.5, Australia Kiribati Aviation Program, support to KMS positions, Support for USGS seismic stations, SOFF phase 2 (investment phase), CREWS2 new projects.
- Completed: Disaster Resilience for Pacific (RESPAC), first NCOF, coastal inundation project, meteorological bill, water security project, LDCF food security project, SOFF phase 1, KMS conference system.
- Planned: establishing an EWS and weather forecast office, elevating telecommunications coverage, extend tide gauge networks.

Marine Weather Overview & Products

- Existing services.
- Marine forecast from Fiji.
- Monthly Ocean Climate Outlook.
- Tide calendars (Tarawa, Kanton, and Kiritimati) with an extreme spring tide information note for Tarawa only.
- Three tide gauges (1 COSPPac, 2 UH).
- More tide gauges required.
- There is a need to support Weather Observation and reporting by vessels within the Kiribati waters.

In-Country Sector Engagement

- The Annual National Climate Outlook Forum - commenced in 2022 and comprises all mayors and island representatives.
- Water - EAR Watch.
- Fisheries - Ocean outlook.
- NDMO - All outlooks (climate, ocean, EAR).

Priorities & Gaps

- BIP-MT and BIP-M training.
- New office with proper equipment to support an increase in the number of staff and services.
- Developing a suitable EWS based on KMS and meteorology, and linked to the NDMO and other sectors.
- Improving ocean monitoring and coastal inundation modelling to support all islands.
- Data digitisation.
- Upgrading all weather stations and upper air stations.

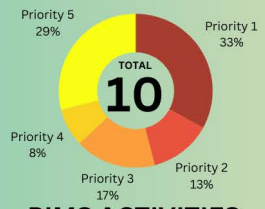
PACIFIC METEOROLOGICAL COUNCIL

Director: Ueneta Toorua dmet@met.gov.ki

Republic of Marshall Islands Meteorological Service

Summary

The United States (US) and the Republic of the Marshall Islands (RMI) signed the Compact of Free Association (COFA) on June 25, 1983, which established the NOAA National Weather Service (NWS) to offer weather services and associated programs throughout the Republic in line with COFA. According to Sections 5 to 13 of Article VII, the US NOAA NWS provides weather services through WSO Majuro. Subsequently, at the operational level, the NWS Pacific Region Headquarters (NWSPRHI) and the Government of the RMI provide financial management and oversight assistance to WSO Majuro. Building on this foundation, in July 2022 with support from the WMO Climate Risk and Early Warning Systems (CREWS) Pacific SIDS Project, the WSO Majuro developed its National Strategic Plan for Weather, Water and Climate Services (NSPWWCS) to achieve its vision and mission to provide quality and reliable weather, water, climate and ocean services in next 10 years.



PIMS ACTIVITIES

Met Legislations

- The CIS-Pac5 GCF program, "Enhancing Climate Information and Knowledge Services", has recruited a consulting team to assist WSO Majuro in drafting its National Meteorological Legislation Act.
- A draft was shared with key national stakeholders in May 2024.
- The draft Act is now awaiting COFA III to be finalised and signed.

Staffing Overview

- WSO Majuro consists of 1 Meteorologist-In-Charge (MIC), 1 Staff Meteorologist (vacant), 1 Supervisory Weather Service Specialist, 5 Weather Service Specialist (WSS), 1 Supervisory Electronic Program Specialist (EPS), 1 Facilities Technician (vacant), and 1 Tradesman (vacant)
- Through the CIS-Pac5 Project, WSO Majuro has also incorporated 1. National Climate Expert, 2. National Ocean Expert, 3. ICT/Technical Officer, 4. Traditional Knowledge Officer, 5. National Framework for Climate Services Consultant, and 6. Early Warning Systems Consultant.

Communications Overview

- Oceanographic and hydro-meteorological data communicated via Chatty Beetle, HF radio communication, cellular communications, and air/sea mail.
- Data is transmitted to the Global Data Network via FAA Aeronautical Information System Replacement, the web, email, and satellite phone.
- In the event of communication outages, transmissions may get relayed to other Micronesian WSOs, such as the WSO Pago Pago or WFO Guam via landlines, Chatty Beetle, or HF radio communication.

Training Initiatives for Capacity Building

- Climate, Oceans and ACCESS-S training.
- Young Scientist Support Program (YSSP) 2023 and 2024.
- CIS-Pac5 Beginner Climate and Oceans Training Workshop Melbourne, Australia.
- Sub-Regional Training Workshop through the ROK-PI CLIPS Project 2.
- Joint Training Workshop for the Republic of Korea- Pacific Islands Climate Prediction Services Phase 2 Project.

Extreme Weather, Ocean & Climate Threats

- Cyclones.
- Drought.
- Flash flooding.
- Tsunamis.
- Heavy rainfall.
- Storm surges and swells.
- Warning procedures involve using watches, warnings, and advisories from the U.S. Joint Typhoon Warning Center (JTWC), NOAA Pacific Tsunami Warning Center (PTWC) and the U.S. NWS Weather Forecast Offices (WFO) in Guam and Honolulu.

Met Input to National Strategic Plan

- National Strategic Plan for Weather, Water and Climate Services (NSPWWCS).
- Developed July 2022 to help WSO Majuro achieve its vision and mission to provide quality and reliable weather, water, climate and ocean services in next 10 years.

Infrastructure Overview Gaps & Urgent Needs

- Four manned Second Order Synopsis Stations (SOSS).
- One climate station in five different locations.
- WSO Majuro replaced an aging emergency generator and fuel storage tank.
- The observatory building and upper-air inflation building are being repainted.

Finance & Investment Overview

- WSO Majuro receives support from NOAA through COFA, as well as from other external partners, donors, and projects like the CIS-Pac5 Project.

Climate Services Summary

- Performs upper air and surface observations, including the hourly METARs, six-hourly synoptic, and twenty-four-hour climate reports.
- A local cooperative climate network of stations receives daily climate reports from SOSSs and climate stations.
- Tools used for seasonal forecasts - SCOPIC, CliDE, CliDEsc, WxCoder, CLIKP, PEAC, PICASO, and ACCESS-S.
- Forecasts rainfall, surface temperatures, SLR, SST, coral bleaching, and ENSO phases.

NHMS Key Achievements

- Installed 3 AWS (Utrik, Mili, Majuro) and designated these as GBON Climate Stations.
- 1st National Climate and Oceans Outlook Forum.
- Tsunami Ready Program progressed and now nearly completed.
- Traditional knowledge conference.
- Developed strategic and implementation plan.
- Addition of experts and consultants to the team.

Presence of Strategic Plan for NHMS

- The RMI National Strategic Plan 2020-2030 includes under its "Environment Climate Change and Resiliency Pillar" a policy objective to "meet obligations to relevant national, regional and international treaties, agreements and frameworks".
- National Strategic Plan for Weather, Water and Climate Services (NSPWWCS).
- In Feb 2024 the WSO Majuro built upon the Goals, Objectives and Strategies of the NSPWWCS by adding an NSPWWCS Implementation Plan (IP) with detailed sub-activities.

Projects: Completed, Current & Planned

- Completed: Enhancing Climate Information and Knowledge Services for Resilience Project (CGF-UNEP).
- Completed: Enhancing disaster and climate resilience in the Republic of the Marshall Islands through disaster preparedness and infrastructure Project (Japan-UNDP).
- At least eight other various projects are planned for future implementation.

Marine Weather Overview & Products

- WSO Majuro has a network of surf observation giving twice-daily reports on surf information from five selected coastal areas within the country.
- It provides near-real time wave heights, characteristics, velocities and current observation.
- It provides near-real time sea-level height and sea surface temperatures from the Seaframe tide gauge at Majuro Atoll lagoon.
- WSO Majuro also provides tidal information, wave run-up forecasts for Majuro and Kwajalein Atolls, coastal flooding watches, warnings and statements, and high surf advisories, watches, warnings and statements.

In-Country Sector Engagement

- National Disaster Management Office (NDMO)
  - WASH Cluster.
  - Food Cluster.
  - Mayor association and outer island communities.
- Ministry of Natural Resource and Commerce (NRC)
  - Agricultures Division.
  - Fisheries Division.
- Also: Ministry Public Safety, Ministry of Health, Marshall Islands Red Cross Society, Ministry of Transportations, IOM, and Red cross.

Priorities & Gaps

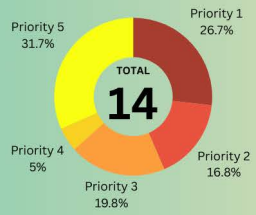
- Need more office space to accommodate the five additional staff being funded for the next five years by the GCF project.
- Daily forecast only covers a 40-mile radius around the WSO station. Need to be able to provide daily forecasts to the other communities in the outer islands.
- Ingest available data from NIWA's new AWS into appropriate data networks.

PACIFIC METEOROLOGICAL COUNCIL
Lead Meteorologist: Reginald White
reginald.white@noaa.gov

Nauru Meteorological Service

Summary

Nauru NMHS was established on the 11th of May 2015, and has grown from one officer in 2015, to 14 officers in 2024, operating 24/7 services, and sending METAR and SPECI data to Nauru Control Tower, Fiji MET, BoM, and Port Moresby. Nauru NMHS prepares and sends 12-hour weather forecasts, as well as monthly climate outlook reports, that include temperature and rainfall data. Additionally, it sends monthly EAR bulletins to stakeholders. In December 2018, Nauru NMHS installed new meteorology equipment from NIWA, New Zealand, donated under the FINPAC project and facilitated by SPREP. The meteorology equipment in 2024 remains well-maintained and continues to be actively-used. In June 2020, Nauru NMHS received equipment for AWSs funded by UNDP. However, the equipment is yet to be installed due to a lack of available technical staff.



PIMS ACTIVITIES

Met Legislations

- Nauru Meteorology and Hydrology Act 2024 passed 15th of August 2024.
- It renewed and repealed the NHMS Act 1906.

Staffing Overview

- 14 current staff.

Communications Overview

- Temperature sensor.
- Barometer.
- Wind sensor.
- Manual rain-gauge.

Training Initiatives for Capacity Building

- BIP-MT training for observation staff (ICAO requirement).
- CLIDE Training.
- Forecaster training.
- Climate training.
- IT training.
- Ocean forecasting training.
- QMS training.

Extreme Climate Threats

- Tropical cyclone depression (trigger high swells, strong winds, and road flooding).
- Tsunamis.
- Drought (shortage of water, dead crops).
- Low pressure systems.

Met Input to National Strategic Plan

- The current strategic plan is in progress.
- So, current meteorology and climatology mandates are covered under the new Act.

Infrastructure Overview Gaps & Urgent Needs

- NMHS building - although there are plans for a new NMHS centre pending more SOFF funding.
- AWS equipment from UNDP - but not yet installed due to lack of technical expertise.
- NMHS website page.

Finance & Investment Overview

- SOFF funding secured.
- Lacks financial support for the eight observation staff to undertake, BIP-MT training, an ICAO requirement.

Climate Services Summary

- Provide monthly climate outlook reports.
- Seconds monthly EAR bulletins to stakeholders.
- Provides and communicates temperature and rainfall data.

NHMS Key Achievements

- Engaging with stakeholders to send monthly EAR bulletins.
- Establishment of the Nauru Meteorology and Hydrology Act 2024.
- JICA/FMS training.
- Republic of Korea-Pacific Islands Climate Prediction Services projects.
- RA V Tropical Cyclone Committee.
- Ocean and climate training.

Presence of Strategic Plan for NHMS

- None at present, but one in progress.
- All strategic planning is currently mandated by the new 2024 Act.

Projects: Completed, Current & Planned

- Planned and in progress under the SOFF project: NMHS building and AWS.
- Planned: More capacity building, increasing staff qualifications.

Marine Weather Overview & Products

- Windy.com module.
- Tide-gauge.
- MET connect.

In-Country Sector Engagement

- Agriculture.
- Fisheries.
- Transport.
- Utilities.
- CIE (Climate Industry Environment).
- Health Department.
- Aviation.
- Nauru Government.

Priorities & Gaps

- All employees and employment to meet standards.
- Fully install the AWS.
- Fully-developed NMHS website.
- More capacity building.
- Developing the NMHS centre.
- Improved internet connection.
- Additional CLIDE training.

PACIFIC METEOROLOGICAL COUNCIL

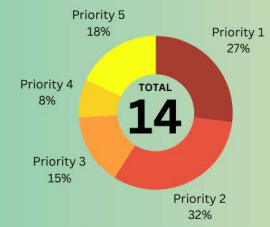
Director: Graymea Ika graymeaika1510@gmail.com

Niue Meteorological Service

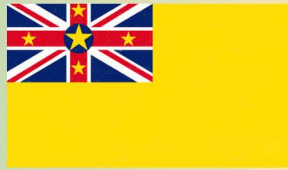
Summary

Niue Meteorological Service (NMS) is one of three departments within the Ministry of Natural Resources, and is responsible for issuing warnings to the people of Niue for all high-impact weather and climate events such as cyclones and drought. Its purpose is to provide timely and reliable weather, climate and climate change information for the safety of life and property. Weather and climate services are fundamental for the sustainability of the environment, infrastructure and socio-economic development of Niue. Users such as mariners, farmers, road developers, builders, airlines, and tourists depend on weather forecasts and warnings for better planning and decision-making.

- Our Vision: "A prime driver of weather and climate services."
- Our Mission: "To provide credible and timely weather and climate services for all stakeholders."



PIMS ACTIVITIES



Met Legislations

- Meteorological Services Act 2013 - covers:
  - Department functions.
  - Issuing weather bulletins and warnings.
  - Powers to protect assets, operations, and remove obstructions.
  - Rules and operating procedures.
  - Appointment of authorised officers.
  - Powers of officers.

Staffing Overview

- NMS currently has seven staff.
- Four of the staff are seconded to the UNEP CIS Pac-5 Project for Niue.
- There is a need to recruit new staff.
- One MET Trainee is currently overseas pursuing tertiary studies in the field of meteorology.

Communications Overview

- Mode of data communication - 4G network (primary) and satellite (secondary).
- Data transmitted via email to Wellington to upload to the Global Data Network.
- Rely on the internet for satellite products.
- SATAID data accessed via public websites e.g., NOAA and JMA.
- Lightning data is used to support forecasts.

Training Initiatives for Capacity Building

NMS has participated in 15 training programmes since 2019, including but not limited to:

- Meteorological and climate services training.
- Equipment training.
- Regional workshops on climate resilience.
- Marine services and oceans training.
- Observations training.
- Meteorology technical training.

Extreme Climate Threats

- Tropical cyclones.
- Drought.
- Heavy rainfall.
- Coral bleaching.
- Sea level rise.
- Early warning systems consist of issuing warnings information via email, Facebook, Radio, and TV Niue.

Met Input to National Strategic Plan

- NMS directly supports the Environment and Climate Change pillar in the Niue National Strategic Plan 2016-2026.
- The provision of weather and climate information also links to the pillars on enhancing Economic Development, Governance, Infrastructure, Social Services, Tāoga Niue and Private Sector.

Infrastructure Overview Gaps & Urgent Needs

- One observation office and one AWS located at the airport.
- In 2023, two extra AWS were installed, one on the eastern side in Liku Village and the other on the northern side in Vaipapahi in the village of Hikutavake.
- No upper air observations programs.
- NMS's local technician maintains the AWS in conjunction with technicians in NIWA and NZ MetService.

Finance & Investment Overview

- NMS receives support from the Niue Government, as well as external projects such as UNEP CIS Pac-5.
- Partners and linkages - Climate and Oceans Support Program for the Pacific (COSSPac 3), Weather Ready Program, WMO, SPREP, and SPC.

Climate Services Summary

- Shares CSIRO climate projections.
- Forecasts temperature and rainfall, and seeks to forecast sea surface temperatures and daylight hours.
- Communicates forecasts via email, radio, Facebook, village council Facebook chat group, and television.

NHMS Key Achievements

- Improved weather services through projections, outlooks, and warnings.
- Disaster risk reduction community awareness.
- National Weather, Climate, and Oceans Framework 2023.
- Integrated observing/communication systems, including installing two AWSs and an AWOS.
- Regional Project Development UNEP CIS Pac5.
- COSSPac support to the re-established tide gauge hut and unveiling of the mural.

Presence of Strategic Plan for NHMS

- Niue National Strategic Plan 2016-2026.
- The NMS has its own Corporate Plan 2020-2025.
- National Weather, Climate, and Oceans Framework 2023.

Projects: Completed, Current & Planned

- UNEP CIS Pac-5 - Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean.
- Climate and Oceans Support Program for the Pacific (COSSPac 3), Weather Ready Program, WMO, SPREP, and SPC.

Marine Weather Overview & Products

Daily provision of Marine Weather Bulletins to all stakeholders:

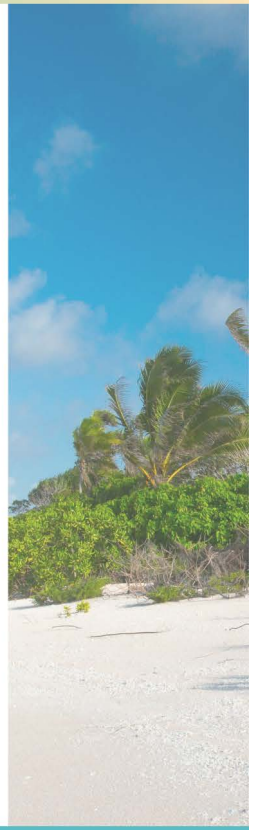
- Marine weather forecasts.
- Winds.
- Sea state.
- Swells.
- Tidal information.
- Sea surface temperatures.
- Coral bleaching status.

In-Country Sector Engagement

- Government, private sector, and communities - weather forecasts/warnings/Climate Outlooks.
- Niue Disaster Management Office (NDMO) - severe weather and tropical cyclone warnings.
- Department of Agriculture, Forestry, and Fisheries (DAFF) - Agrometeorology and Oceans
- Ministry of Infrastructure and Road Development - rainfall events and severe weather.
- Climate traditional knowledge with communities - Niue Girls and Boys Brigade (Yam monitoring for tropical cyclones and ENSO) and Ekalesia Niue Women (Pia Niue Project).

Priorities & Gaps

- AWS, AWOS and wave buoys maintenance.
- Upgrade IT equipment.
- Upgrade the NMS Building - climate proofing.
- Increase human resources.
- Ongoing support for new staff training.
- Long-term priority - become fully-operational 24 hours.
- Simplifying climate terminologies and integrating climate and traditional knowledge indicators into public products and services.



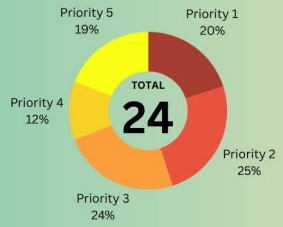
PACIFIC METEOROLOGICAL COUNCIL

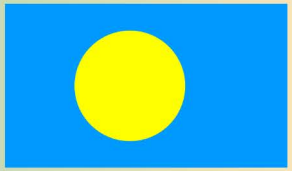
Director: Rossy Mitiepo
rossy.mitiepo@mail.gov.nu

Palau Weather Service Office

Summary

The Republic of Palau is a Western Pacific island nation with a total land area of 171 miles and a population of approximately 21,000. Palau's climate is tropical, with varying annual rainfall between 120-160 inches, and consistent humidity between 77-84 percent. Temperatures persist within 10°F of a low 80°F mean. Northeast trade winds prevail from December to March, and the Southwest Monsoon from June to October. On the edge of the Typhoon Belt, significant tropical cyclones are rare (Mike, Bopha, and Haiyan being the only recorded cyclones to hit), but tropical disturbances frequently develop near Palau every year. The National Weather Service (NWS) has protected and supported lives and properties for over a century, providing timely and reliable weather, water, climate, and environment information. NWS provides the necessary and authoritative information for planning, preparing, mitigating, and responding to natural hazards. NWS's services include forecasts and observations, warnings, impact-based decision support services, and education. It aims for a country that is prepared for, and responsive to, weather, water and climate events. NWS works with many stakeholders at local, regional, and national levels to help educate communities on staying safe and ensuring weather services, such as warnings, reachall communities.





PIMS ACTIVITIES

Met Legislations

- National Disaster Risk Management Framework.

Staffing Overview

- 2 meteorologists (MIC & Staff MET).
- 3 technicians/ITs.
- 1 supervisory weather service specialist (SWSS).
- 5 weather service specialists (WSS).
- 1 facility technician.
- 1 administrative assistant.

Communications Overview

- Landlines.
- Facsimile.
- Internet (email and Facebook page).
- Satellite phones and mobile cellular phones.
- HF radio and VHF radio.
- Chatty Beetle.
- WSO website (pending) through the CREWS/TK project.

Training Initiatives for Capacity Building

- Pacific Desk Training (Weather Forecasting in the Tropic).
- Climate and Ocean Services including Portals: NOAA & BOM.
- Incident Command System (ICS) Courses.
- Impact-Based Decision System (IDSS) Training.
- Annual Cybersecurity Awareness Course: NOAA.
- Annual Security Rules of Behaviour: NOAA.

Extreme Climate Threats

- Tropical cyclones.
- Droughts.
- Landslides/mudslides.
- Flooding.
- Salt water inundation/intrusion to crops.
- Storm surges.

Met Input to National Strategic Plan

- NWS National Strategic Plan, an annex to the National Disaster Risk Management Framework (NDRMF).
- Tsunami Support Plan.
- Tropical Cyclone Action Plan.

Finance & Investment Overview

- NWS Palau is supported and funded by NOAA NWS Pacific Region Headquarters.

Climate Services Summary

- Climate bulletin.
- Daily forecast.
- Weekly weather bulletin.
- Monthly rainfall and air temperature bulletin.
- Early Action Rainfall (EAR) Watch.

NHMS Key Achievements

- Installation of new equipment with training for AWSs, AWOS, waverider buoys and radar.
- Ocean and mobile app.

Projects: Completed, Current & Planned

- 4 AWSs (UNDP fund) and an additional 4 (GCF UNEP Fund).
- 2 wave-rider buoys (UNDP Fund) and an additional wave rider (GCF UNEP Fund).
- Weather Ready Nation and Tsunami Ready (both underway).
- AWOS.
- X-band radar.
- Weather mobile app.
- Weather Ready Pacific.

Marine Weather Overview & Products

- Ocean bulletin.
- Coastal forecast via WFO Guam.
- Fisheries bulletin.
- Daily Surf Observation (WSO and NEMO).

In-Country Sector Engagement

- National Climate Outlook Forum (NCOF).
- National Climate Sector Action and Communication Plan (NCSACP).
- Sector Specific Climate Program (SSCP).
- 12 Rain Gauges with CCTV (NEMO).
- 21 Emergency Sirens (NEMO).
- Marine Safety Information Network (Bureau of Marine Transportation).

Priorities & Gaps

- TK database.
- WSO website.

PACIFIC METEOROLOGICAL COUNCIL

Director: Maria Ngemaes

Maria.Ngemaes@noaa.gov

16.10 Papua New Guinea

355. The highlights provided by Papua New Guinea are summarised as follows:

a. National Weather Service (PNGNWS) made significant improvements in human capacity building activities amidst declining meteorological service infrastructure during 2022-2023/24.

b. In all there were more than 20 activities pertaining to the 11 Pacific key outcomes. Amongst the major milestones are:

i. Continued certification of NWS Part 174 AMSOC,

ii. In-house development of an Integrated Data & Information Management System (DIMS), architecture cloned from ClideDes

iii. Establishment of partnership under the Private Public Partnership (PPP) with Digicel PNG,

iv. MOAs with WaterAid and Hong Kong Observatory on the SIGMET Tool,

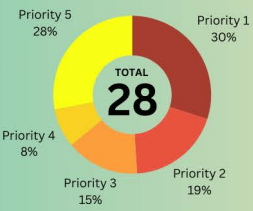
v. Establishment of Watch Office.

c. Going forward, further activities are planned and scheduled for completion during 2024-2026. Urgent priority funding of 12 AWSs under the WMO SOFF. Or purchase of 3D-PAWS state of art tech to resolve the current priority.

Papua New Guinea National Weather Service

Summary

Papa New Guinea National Weather Service (PNG NWS) made significant improvements in human capacity building activities amidst declining meteorological service infrastructure during 2022-2023/24. In all there were more than 28 activities pertaining to the 11 Pacific key outcomes. Amongst the major milestones, was the continued certification of NWS Part 174 AMSOC, in-house development of an Integrated Data & Information Management System (DIMS), the establishment of a partnership under the Private Public Partnership (PPP) with Digicel PNG, MOAs with WaterAid and Hong Kong Observatory on the SIGMET Tool, and the establishment of a Watch Office. Going forward, further activities are planned and scheduled for completion during 2024-2026.



PIMS ACTIVITIES

Met Legislations

- Civil Aviation Act 2000 (amended 2010) does not cater for the full services offered by PNG NWS.
- After PMC-6 and PMMM3, the Minister for Transport and Civil Aviation called for the establishment of PNG NWS as a standalone entity.
- This initiated a legislative review and reform under the Department of Transport.

Staffing Overview

- 36 cadets were recruited in 2018, and four graduates have been sent to PAGASA for the WMO BIP-M course.
- Others have attended various training workshops and programmes.
- Restructure will be done under the current Department - NWS legislative review.

Communications Overview

- Upgraded internet bandwidth to 20 mbps.
- Negotiations with DATA Co for additional 30 mbps (total 50 mbps) to meet WMO DCPC requirements.
- Public awareness and campaigns are a challenge.

Training Initiatives for Capacity Building

- The government department prioritises meteorology training (WMO BIP-M and BIP-MT) for any overseas training bids.
- Negotiating with the Australian Department of Foreign Affairs and Trade (DFAT), under the NWS-BOM Twinning to prioritise training for the next generation of meteorologists.
- Tropical cyclone forecasting training.
- QMS-ISO training and certification.

Extreme Climate Threats

- PNG has a whole spectrum of climate-related hazards:
  - Floods, tropical cyclones, landslides, severe thunderstorms, droughts, frosts, soil erosion, storm surges, coastal inundations, bushfires, etc.
- Impacts: Seasonal health diseases, food security, mass migration, and social issues.

Met Input to National Strategic Plan

- Updated the National Weather Service's Strategic Plan 2024-28.
- Currently updating MTDP III to Align with MTDP IV.
- Working with key technical agencies and government central agencies to align PNG NWS and its plan with the multi-hazard early warning system for the country.
- Multi-hazard assessment maps for the 22 provinces.

Infrastructure Overview Gaps & Urgent Needs

- High-speed computing system for data assimilation and numerical weather prediction.
- Human resources equipped with appropriate training and skills.
- Current buildings have not been updated from when it was first built during colonisation, and requires renovations and modernisation.
- Calibration facility for NWS.
- Tropical cyclone centre upgrade.

Finance & Investment Overview

- Various donors and development partners contributed towards capacity-building activities for PNG NWS during 2022-23/24 and are expected to continue providing support, including:
  - WMO-CREWS
  - WATERAID PNG-WATERAID
  - DFAT NWS-BOM Twinning
  - CADIP 2 - ADB

Climate Services Summary

- Monthly Climate Outlooks for stakeholders.
- Three, six, and twelve month seasonal outlooks.
- Upgrade of SCOPIC and training - SPREP.
- NCOF/PICOF – SPREP/RIMES.
- Drought Triggering Methodology for Anticipatory Action – FAO.
- Climate Smart Agriculture Project - NARI and ANU, Customisation of Amamas Tool for users and training - RIMES and FAO.
- Oceans Science and Climate training - COSPPac, SPREP, and BOM.

NHMS Key Achievements

- Improvement of drought monitoring system.
- Upgrade of the SCOPIC model for rainfall and drought monitoring
- Implementation of the Flash Flood Guidance System (FFGS).
- Strengthening of ICT with NWS.
- In house development of the integrated Data Management and Information System (DIMS)/ integrated forecasting system.

Presence of Strategic Plan for NHMS

- Review and update of the PNG NWS Strategic Plan 2024-2028 completed.
- WMO SOFF project documentation completed.
- State HydoSOS plan completed.
- Alignment of PNGNWS Strategic Plan with MTDP III and MTDP IV.
- Alignment of PNGNWS Strategic Plan with MTTP II and MTTP III.

Projects: Completed, Current & Planned

- Completion of PNG NWS DIMS.
- Operationalisation of NMHEWC.
- Provision of various training opportunities by COSPPac, SPREP, RIMES, and DFAT.
- Meteorology training course BIP-M and BIP-MT.
- Hydrometeorology, oceanography, and tropical cyclone training courses.
- Satellite interpretation training courses.
- CADIP 2 Infrastructure development.

Marine Weather Overview & Products

- Coastal and ocean weather forecasts.
- Strong wind warnings.
- Tropical cyclone warnings.
- Currents and tide information services.
- Coastal inundations.
- Tsunami warnings.
- Periodic waves.

In-Country Sector Engagement

- Coastal and ocean weather forecasts.
- Strong wind warnings.
- Tropical cyclone warnings.
- Current and tide information services.
- Warnings disseminated through stakeholders, NDC for weather forecasts, climate outlooks and warnings including radio and print media.
- Government and private sector engagements.

Priorities & Gaps

- Adequate networks to monitor meteorological parameters.
- A robust communication system for data transmission, dissemination, and sharing of forecasts and information.
- Specialised training for the delivery of climate change services under different scenarios, especially the rapidly warming climate scenario.
- Specialised forecasting skills to detect and predict severe weather and climate phenomena.

PACIFIC METEOROLOGICAL COUNCIL

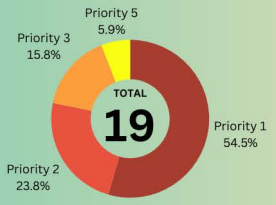
Director: Jimmy Gomoga jgomoga@gmail.com

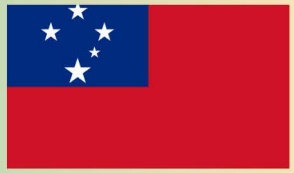
Samoa Meteorology Division

Summary

Samoa Meteorology Division (SMD) is the official source of meteorological, climatological, geoscience, and ozone information for the Independent State of Samoa. SMD sits within the Ministry of Natural Resources and Environment (MNRE).

SMD continues to progress in the implementation of its development agenda to ensure effective services are delivered for weather, geoscience, and ozone for the safety of lives and the protection of peoples' properties. Services are also rendered to world communities to reduce risk, manage disasters, and combat climate change. All these threaten our livelihood and existence as a Small Island Developing State (SIDS).





PIMS ACTIVITIES

Met Legislations

- Meteorology, Geoscience and Ozone Services Act 2021, reviewed every five years.

Staffing Overview

- 32 staff.
- Nine forecasters, and eight meteorological observers and technicians.
- Only two forecasters have been formally trained at institutions with BIP-M credentials.
- Three forecasters are in Australia studying the meteorology course.
- All other forecasters have participated in the introductory forecasting course through the Pacific Training Desk in Hawaii (NOAA).

Communications Overview

- Data transmission from remote stations - microwave link, mobile network.
- Data transmission to the Global Data Network - internet and satellite.
- Himawari satellite is the primary geostationary satellite used for products.
- SATAID information available.

Training Initiatives for Capacity Building

SMD has participated in several training programmes including but not limited to:

- Lead and internal auditor training.
- 3rd Session of the SERCOM and the Gender Conference.
- Sea Level Training and the Sector-Based Climate Services and Coordination Workshop.
- Thematic Workshop on Strategy of Stage i of the KIP and Integration with the HPMP Stage ii.
- FMS/JICA Third Country Training on Marine Meteorology .

Extreme Climate Threats

- Heavy rainfall, coastal flooding, drought, ENSO cycles, tropical cyclones, diseases.
- Early warning systems - Early Action Rainfall (EAR) Watch, Seasonal Climate Outlook (SCO), and Climate Summary.
- The Drought Policy is in its final stage of development and will be instrumental in guiding drought monitoring efforts.

Met Input to National Strategic Plan

- A Met Strategic Plan is in the development process.
- The National Environment Sector Plan (NESP) and MNRE Management Plan are both in place.

Infrastructure Overview Gaps & Urgent Needs

- Two main climate stations (longer-term synoptic stations): Faleolo International Airport and Apia.
- Six other manual climate stations and 30 manual rain gauges.
- 28 AWSs - reflect infrastructure for both meteorology and water resources/hydrology.

Finance & Investment Overview

- SMD receives funding support from the Samoan Government, as well as external projects and donors.
- Projects include: COSPPac, GCF, ClimSA, SOFF, Ocean Acidification Project and CREWS 2.0.

Climate Services Summary

- Seasonal forecasting tools - SCOPIC, ACCESS, CLIKP and PICASO.
- Seasonal forecasting models - ACCESS S, CLIKP and PICASO.
- Forecasted phenomena - El Nino Southern Oscillation (ENSO), SPCZ, oceans.
- Seasonal forecasts communicated via email, social media, and the website.
- Moving to use radio for rural communities.

NHMS Key Achievements

- A Multi-Hazard Early Warning System (MHEWS) policy approved in 2021.

Presence of Strategic Plan for NHMS

- A Met Strategic Plan is currently in the process of being developed.

Projects: Completed, Current & Planned

- COSPPac
- GCF
- ClimSA
- Pacific Resilience Program (PRP).
- Ocean Acidification Project.
- Ozone Project.
- SOFF.
- CREWS.
- CREWS 2.0 (IBFWS).

Marine Weather Overview & Products

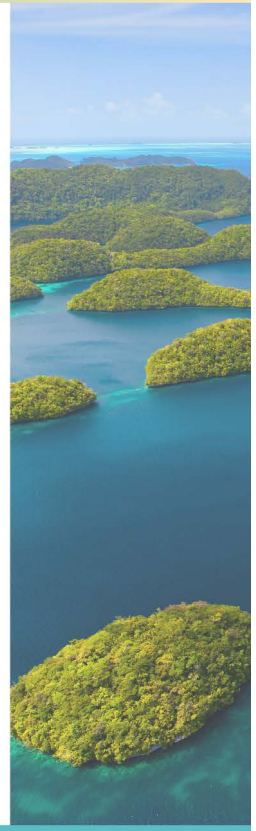
- Marine advisories and warnings due to winds and waves.

In-Country Sector Engagement

- DMO (EAR Watch, SCO, Ocean Outlook).
- MOH (EAR Watch, SCO, Ocean Outlook, HCLEWS).
- EPC (EAR Watch, SCO, Ocean Outlook, AWSOM).
- SWA (EAR Watch, SCO).
- SFESA (EAR Watch, SCO, Ocean Outlook).
- Red Cross (EAR Watch, SCO, Ocean Outlook).
- MWTI (Rainfall, temperature, etc).
- MAF (EAR Watch, SCO, Ocean Outlook, Agromet).

Priorities & Gaps

- Retaining staff with a competitive salary.
- Doing aviation forecasting.
- Improved capacity/training in flood modelling.
- Funding to hire technicians to service AWSs.
- Ocean equipment for marine forecasting.
- A Doppler radar and relevant capacity and skills building for maintenance.
- Specific Met IT officers.
- Improved internet services
- Upgrade of forecast/warning communications, focussing on SMS, social media and apps.



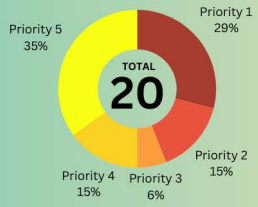
PACIFIC METEOROLOGICAL COUNCIL

Director: Luteru Tauvale luteru.tauvale@mnre.gov.ws

Solomon Islands Meteorological Service

Summary

The Solomon Islands Meteorological Service (SIMS) is the only mandated government institution that provides meteorological, climate, ocean, and climate change science advisories to the Solomon Islands Government and the wider community of the Solomon Islands. From 2019 to 2024, the SIMS has ensured that the necessary public, aviation, and marine weather services are produced and disseminated in a timely manner by forecasters to decision-makers and the public at large. The ongoing emphasis on capacity building aims to develop human resources and enhance the SIMS's services overall. The SIMS maintains its support and collaboration with the Pacific Meteorological Council (PMC) and other partners for its overall development.



PIMS ACTIVITIES

Met Legislations

- Solomon Islands Meteorological Act 1985.
- Allows the SIMS to function and operate as the main government body providing meteorological advisories to the national government and the wider community.
- The associated meteorological policy, the 'Policy for the Provisions of weather, climate and ocean services in the Solomon Islands', launched on 7th August 2023.
- The Act is currently under review through the WMO CREWS Project.

Staffing Overview

- MECDM has in place a Human Resources Development Plan (HRD).
- Service staff:
  - Administration forecast/research - 2.
  - Observation - 29.
  - Climate - 5.
  - Forecaster - 13.

Communications Overview

- Oceanographic and hydro-meteorological data transmitted from AWSs via DCP satellite, email, Chatty Beetle, and posting.
- At times, SIMS uses satellite images as supportive information for forecasts, advisories, or warnings - using the Goes-West satellite.
- SIMS has access to lightning data and uses it in its services.

Training Initiatives for Capacity Building

- Impact-based forecasting and common alerting protocol workshop.
- BIP-Met technician training.
- CAASI Part 174 Certification.
- Early Warning for All National Workshop (EW4All).
- COSPPac media equipment support and communications training.
- Tsunami Ready Recognition Program.
- NOAA PREPARE Early Warning Project.

Extreme Climate Threats

- Tropical cyclones.
- Coastal inundation.
- Tsunamis.
- SIMS has early warning systems in place - tropical cyclone outlook, early action rainfall watch, and ENSO update.

Met Input to National Strategic Plan

- The 'National Strategy for Meteorological Services and Framework for Weather, Climate, and Ocean Services 2023-2028'.
- The Strategy clearly outlines the strategic goals and objectives for SIMS to strengthen and streamline its capacity and systems for weather, climate, and ocean services for improved decision-making at the sectoral level.
- It sets the directions for SIMS over five years.

Infrastructure Overview Gaps & Urgent Needs

- National Weather Forecasting Centre.
- Henderson Airport AWOS Upgrade.
- FAO Sape and Adeliua Farm.
- Six AWSs.
- One Upper Air Station - but currently not working.
- Five AutoHydro.
- 12 AutoRain.

Finance & Investment Overview

- SIMS receives government support, as well as support from external partners, donors, and projects.

Climate Services Summary

- Tools used for seasonal forecasting - SCOPIC, PICASO, and ACCESS-S.
- Forecasts on rainfall, temperature, wind, and ENSO status.
- Forecasts communicated via email, the SIMS website, social media (official Facebook page), and local broadcasting radio stations (e.g., SIBC).

NHMS Key Achievements

- Development of the National Strategy for Meteorological Services and Framework for Weather, Climate, and Ocean Services 2023-2028 and policy.
- CAASI Part 174 Certification.
- SIMS and SIMA MoU.
- Establishment of the National Weather Forecasting Centre.
- Installed an improved observation system.
- Henderson Airport AWOS upgrade.

Presence of Strategic Plan for NHMS

- SIMS developed and launched its National Strategy for Meteorological Services and Framework for Weather, Climate, and Ocean Services (2023-2028) (NS-FWCOS) and its policy document in 2023.
- SIMS has an annual work plan updated annually.
- SIMS also has the 'Ministry of Environment, Climate Change, Disaster Management and Meteorology Cooperate (MECDM) Plan 2022-2024' - updated every 4 years.

Projects: Completed, Current & Planned

Current projects supporting the SIMS:

- UNDP/DFAT – IDRM.
- CREWS.
- COSPPac.
- AHP.
- FAO.
- DFAT Aviation Infrastructure.

Marine Weather Overview & Products

- SIMS provides marine forecasts, swell advisories, strong wind warnings, and other meteorological advisories to the Solomon Islands Maritime Administration (SIMSA).
- SIMSA then conveys appropriate advisories to navigators and shipping companies.

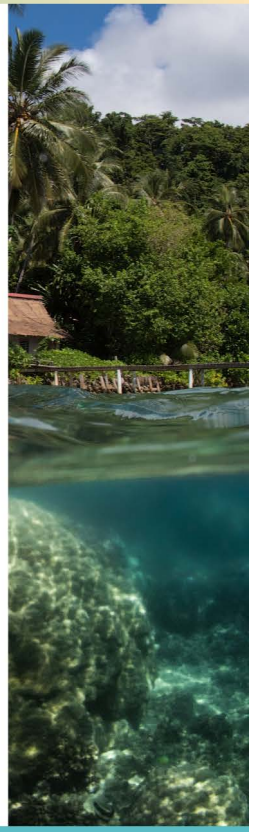
In-Country Sector Engagement

SIMS engages with various sectors on a relatively frequent basis:

- *Agriculture.*
- *NGOs.*
- *Health.*
- *Transport and infrastructure.*
- *Fisheries.*
- *Tourism.*
- *Education.*
- *Water.*

Priorities & Gaps

- Weather, hydrology, ocean observations - training, calibration and maintenance of meteorological equipment, automatic message (Obs) dissemination system, and upper air observation.
- Climate services - application to different sectors and linking climate to climate change services.
- Forecasting services - training, high-resolution NWP products, and a forecasting system.
- Early warning for all - institutional arrangements and support to hazard agencies.
- Capacity - developing sub-seasonal prediction system for rainfall.



PACIFIC METEOROLOGICAL COUNCIL

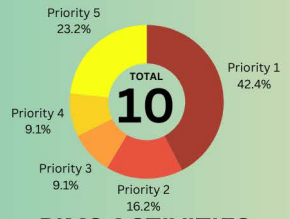
Director: David Hiba Hiriasia

david.hiba@met.gov.sb

Tokelau Meteorological Service

Summary

Tokelau Meteorological Service (TMS) sits within the Environment Division from the Department of Economic Development Natural Resources and Environment (EDNRE). Its aim is to deliver effective and relevant climate information to the people of Tokelau. Although a still developing service, the establishment of the Tokelau Meteorological Service, National Strategic Plan & Framework for Weather, Water, Climate, and Ocean Service 2022-2026, prioritised by the Division to be approved this year and set into action demonstrates a significant step towards improving TMS's climate and weather services and forecasting. TMS fully supports Tokelau's TNSP Goal 6 "Strengthening environment and climate resilience" and prioritises collaboration between communities, government, and regional and international organisations to ensure it operates at full capacity, providing necessary climate information, and ensuring community resilience in the faxe of meteorological hazards and climate change.



PIMS ACTIVITIES

Met Legislations

- There is currently no MET legislation for Tokelau.

Staffing Overview

- There are currently 3 members of staff at the service in charge of:
  - Daily weather forecasts.
  - Weekly weather forecasts.
  - Observing and recording daily weather patterns.
  - Issuing tropical cyclone warnings.
  - Issuing EAR watch.

Communications Overview

- Teletok: 7.05 Mbps download, 1.89 Mbps upload.
- Starlink: 25-220 Mbps download.

Training Initiatives for Capacity Building

- Climate/Ocean Tools Training Custom Product for Agriculture and Fisheries and Hybrid Pacific Island Climate Outlook Forum.
- PITD Cohort 1.
- Systematic Observing Financing Facility (SOFF).
- Pacific Anticipatory Action Regional Meeting.
- EW4ALL, Weather Ready, and ClimSA.
- Climate Risks Early Warning System Steering Committee.

Extreme Climate Threats

- Droughts.
- Cyclones.
- Tsunamis.
- Water borne diseases.
- Water quality.
- Climate variability.

Met Input to National Strategic Plan

- TMS, meteorology, and climatology are featured in the Tokelau National Strategic Plan 2021-2026.
- Tokelau Meteorological Service, National Strategic Plan & Framework for Weather, Water, Climate and Ocean Service 2022-2026 was developed this year and is aimed to be approved and set up by the end of 2024.

Infrastructure Overview Gaps & Urgent Needs

- Three AWSs and three rain gauges.
- Nukunonu's AWS is in full operation, but Atafu and Fakaofo AWSs need full program installation.
- Rain gauges are being checked for whether battery or wiring connectivity changes are required.

Finance & Investment Overview

- TMS receives some funding from the government.

Climate Services Summary

- TMS provides satellite phone communications for extreme climate events.
- Regular forecasting of seasonal climate variables.

NHMS Key Achievements

- Translation of daily forecasts and EAR Watch.
- Weekly forecasts.
- Tropical cyclone outlooks.
- More capacity building for Met officers.
- Tokelau Meteorological Service, National Strategic Plan & Framework for Weather, Water, Climate and Ocean Service 2022-2026.

Presence of Strategic Plan for NHMS

- Tokelau Meteorological Service, National Strategic Plan & Framework for Weather, Water, Climate and Ocean Service 2022-2026.
- The strategic plans focussed on achieving Tokelau's national goals, which are the SDGs.

Projects: Completed, Current & Planned

- Capacity building of Met officers in forecasting, outlooks, and warnings.
- Finalising the AWS installations in Atafu and Fakaofo and training Met officers in this capacity.
- Establishing a weather/climate database system.
- Becoming a member of NCOF.
- Current/planned: establishing a FM radio, however, cannot proceed due to lack of funding.

Marine Weather Overview & Products

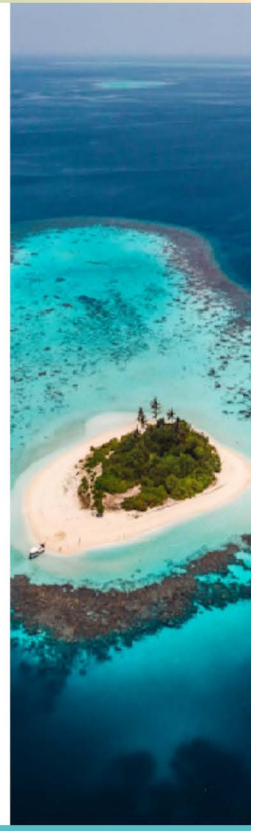
- Marine status and tides information provided.
- Daily forecasts services are provided via email and weekly forecasts, but are based off very basic information, and so, comprise of very limited information for communities.

In-Country Sector Engagement

- TMS operates under the Environment Department which works closely with other departments within the EDNRE.
- Engages with the water sector and MiCORE (regarding natural disasters and warnings).

Priorities & Gaps

- Capacity is very limited - extremely reliant on donors to build capacity which tends to be in discrete projects rather than long-term capacity.
- The three current Met Officers have no formal Met qualifications.
- A better remuneration strategy to increase the chances of retaining well-trained staff.
- Technical expertise on both setting up of tools, maintenance and trainings of local Met officers.
- Getting funding to establish a FM radio - an ongoing project with WMO that was put on hold.

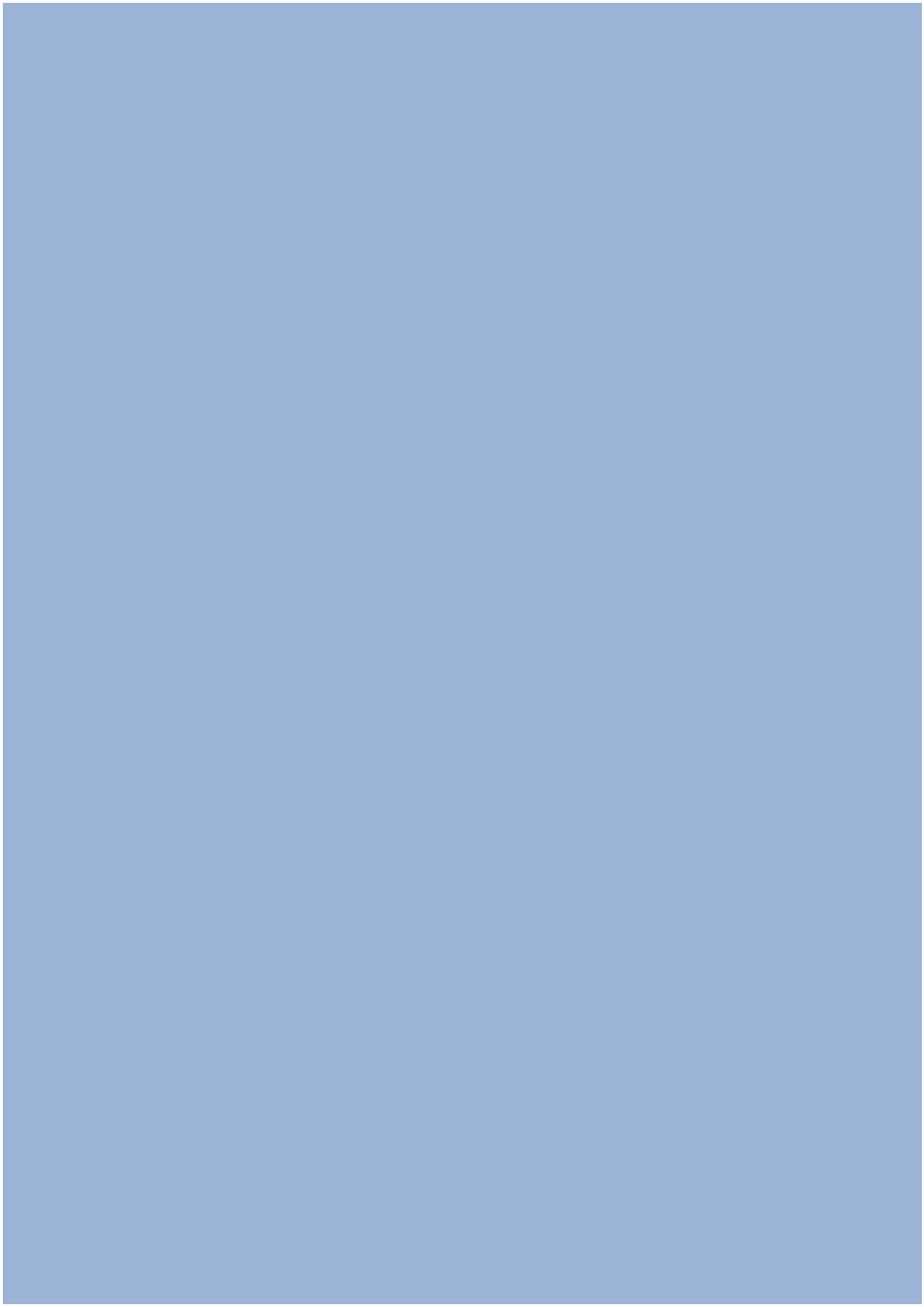


PACIFIC METEOROLOGICAL COUNCIL

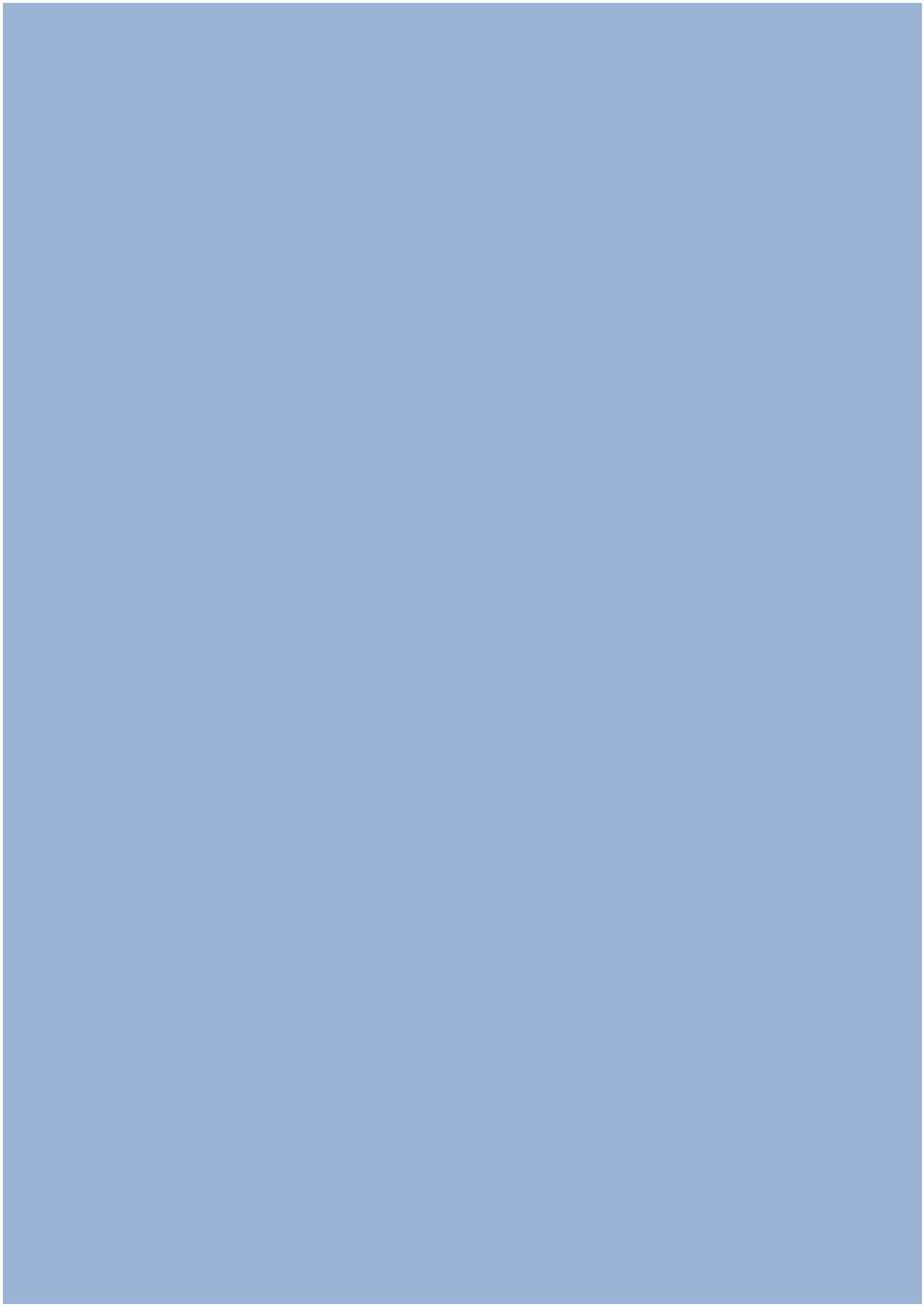
Director: Asifanagulua Pasilio

asi.pasilio@okelau.org.nz

16.14 Tonga



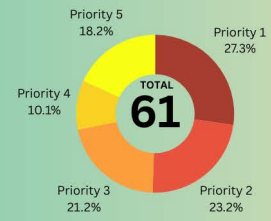
16.15 Tuvalu



Vanuatu Meteorological Service

Summary

The Vanuatu Meteorology and Geohazards Department (VMGD) is one of the five Departments operating under the Ministry of Climate Change and Adaptation (MoCC) established in 2014. The department oversees vital tasks such as weather and geohazards monitoring as well as carving out meteorological and geological hazards assessments. It provides timely information and warnings to safeguard the nation's communities and environment from potential risks and disasters. The current organisational structure is intricately linked through legislative ties established by the VMGD Act 25 of 2016. This act formally designates the department as a key component of the ministry, outlining its responsibilities functions and cooperation with the other four departments in the MoCC.



PIMS ACTIVITIES

Met Legislations

- VMGD was then established by the VMGD Act 25 of 2016 to accommodate the increasing demand for weather and climate information.
- The order of regulation 80 of 2017 outlines the department's roles and responsibilities.
- The Act consolidates the Meteorology Department Act, Geohazards Department Act, Climate Change Department Act, and National Advisory Board into a unified legislative framework.
- All Acts require a thorough review to address demand and growth of respective departments.

Staffing Overview

- The MoCC has its own dedicated human resource strategy, guiding human resource development across all departments, including VMGD.
- The department has 119 staff in several divisions including Administration, Weather Forecasting, Climate Services, Weather Observation, Geo-hazards, ICT/Engineering and Project management.

Communications Overview

- Himawari 9 satellite data obtained from publicly available websites and utilised for meteorology products.
- Upper air station will be commissioned Sep-Oct before being used.
- Lightning instrument installed at airport and lightning data accessed via public forecasting websites and used in forecasting.
- Forecasts provided via email, website, Facebook, radio, television, SMS, and zoom.

Training Initiatives for Capacity Building

- ClimateWatch intensive training.
- Vanuatu Climate Futures Portal Intensive Training.
- CliDE refresher training.
- OSCAR intensive training.
- Regional/Sub-regional ROK PI CliPS training.
- Tropical cyclone portal Training.
- Ocean observation training.
- PMO (Port-Meteorology Officer VOS training.
- National IBFWS training.

Extreme Climate Threats

- Volcanic eruptions.
- Earthquakes.
- Tsunamis.
- Cyclones.
- Storms.
- Other severe weather events.
- Early warning system is in place for climate extreme events - ENSO Early Warning System, Drought Monitoring Early Warning System, Coral Bleaching Alerts.

Met Input to National Strategic Plan

- The VMGD operates with its own strategic plan - the National Strategy and Frameworks for Weather, Climate, Hydrometeorology, and Ocean Services (NSFWCHOS) 2024-2029.
- It also aligns with the Ministry's corporate plan, and subsequently formulates an annual plan based on these strategic guidelines.

Infrastructure Overview Gaps & Urgent Needs

- 7 weather stations.
- 16 AWSs (VanKIRAP).
- 8 new ocean buoys in all provinces (VanKIRAP).
- New river monitoring gauge and spare parts installed in the Sarakata river catchment in Luganville, Santo, Sanma Province (VanKIRAP).
- 4 new groundwater monitoring sensors installed within the Sarakata river catchment in Luganville, Santo, Sanma Province (VanKIRAP).
- New warning centre under construction (UNDP VCAP2).
- Installation of 4 AWOSs with the assistance of BoM (supplied by Weather Ready Pacific).

Finance & Investment Overview

- Primarily supported by the Government, but is also supported by external projects and donors.
- Extra financial support is required to fund for impact-based forecast assessments, essential data collection and analysis, model development, communication, validation, and continuous improvement.
- Sufficient funding will enable VMGD contribute to the Post-Disaster Needs Assessment and Recovery Framework (PDNA/RF).

Climate Services Summary

- Tools used for seasonal forecasting - SCOPIC, CLIKP, Access-s2 Model, Traditional knowledge indicators.
- Rainfall, air temperature, sea surface temperatures, coral bleaching, tides, moon phases and chlorophyll forecasted with the aim to also forecast ocean acidification and marine heatwaves.
- Seasonal forecasts communicated via email, zoom, Facebook, television, radio, and SMS.

NHMS Key Achievements

- Ground-breaking ceremony of the C-Band Weather Radar in July 2024. Shipment and Installation of the radar will be ready by mid-2025. The Radar is funded through the GCF-SPREP/VanKIRAP project.
- July 2024 - VMGD resurrected the weather balloon. Though not yet launched as waiting for commissioning from the hydrogen suppler, it is scheduled to be operational from Sep-Oct 2024.

Presence of Strategic Plan for NHMS

- The Corporate Plan for 2022-2026 effectively integrates the Strategic Plan and the People's Plan for 2022-2030, emphasising the department's key priorities for the next five years.
- These priorities are the foundation for the department's annual activity work plans.
- Moreover, the VMGD's activities and priorities are in perfect harmony with the Environmental pillar of the People's Plan.

Projects: Completed, Current & Planned

Ongoing:

- Climate Information Services for Resilient Development Planning in Vanuatu (VanKIRAP) - GCF funded through SPREP.
- Regional Disaster Resilience for Pacific SIDS - RESPAC/UNDP.
- Enhancing the Capacity of Issuing Earthquake, Tsunami and Storm Surge Information (VANREDI) - JICA.
- Joint Ocean Observatory Automatic Tidal Gauge and Station - China-Vanuatu bilateral agreement.
- Adaptation to Climate Change in the Coastal Zone of Vanuatu - various GEF trust funds under UNDP.

Marine Weather Overview & Products

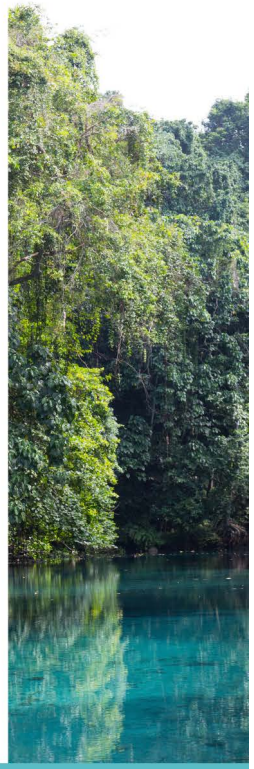
- 4-day marine forecast bulletin.
- Marine warning.
- 3-day severe weather outlook (marine, heavy rainfall, strong inland winds).
- Products provided via radio, website and email (subscription only).
- Marine forecasts cover all waters – separated into four different areas.
- Good collaborations with the marine regulator, e.g., all boats provided updated before leaving ports.
- Upcoming goal - swell warning bulletin.

In-Country Sector Engagement

- Agriculture – Agromet Bulletin.
- Fisheries – Fisheries Climate Outlook, Vanuatu Ocean Outlook.
- Tourism – Tourism Climate Outlook.
- Infrastructure – Vanuatu Climate Update, EAR Watch.
- Water Sector – Vanuatu Climate Update, EAR Watch.
- Energy Sector – Climate Energy Reports.
- Health – Climate Health Reports, Vanuatu Climate Update, EAR Watch.

Priorities & Gaps

- Identify appropriate flood forecasting systems to improve services.
- Capacity-building training for staff.
- All weather forecasters to be certified with a relevant meteorological certification.
- Strengthening of legal framework to better manage VMGD data, assets, and resources for effective services.
- Capacity building for the technical team to maintain the incoming weather radar and weather forecasters who will be using, processing, analysing, and communicating the data.

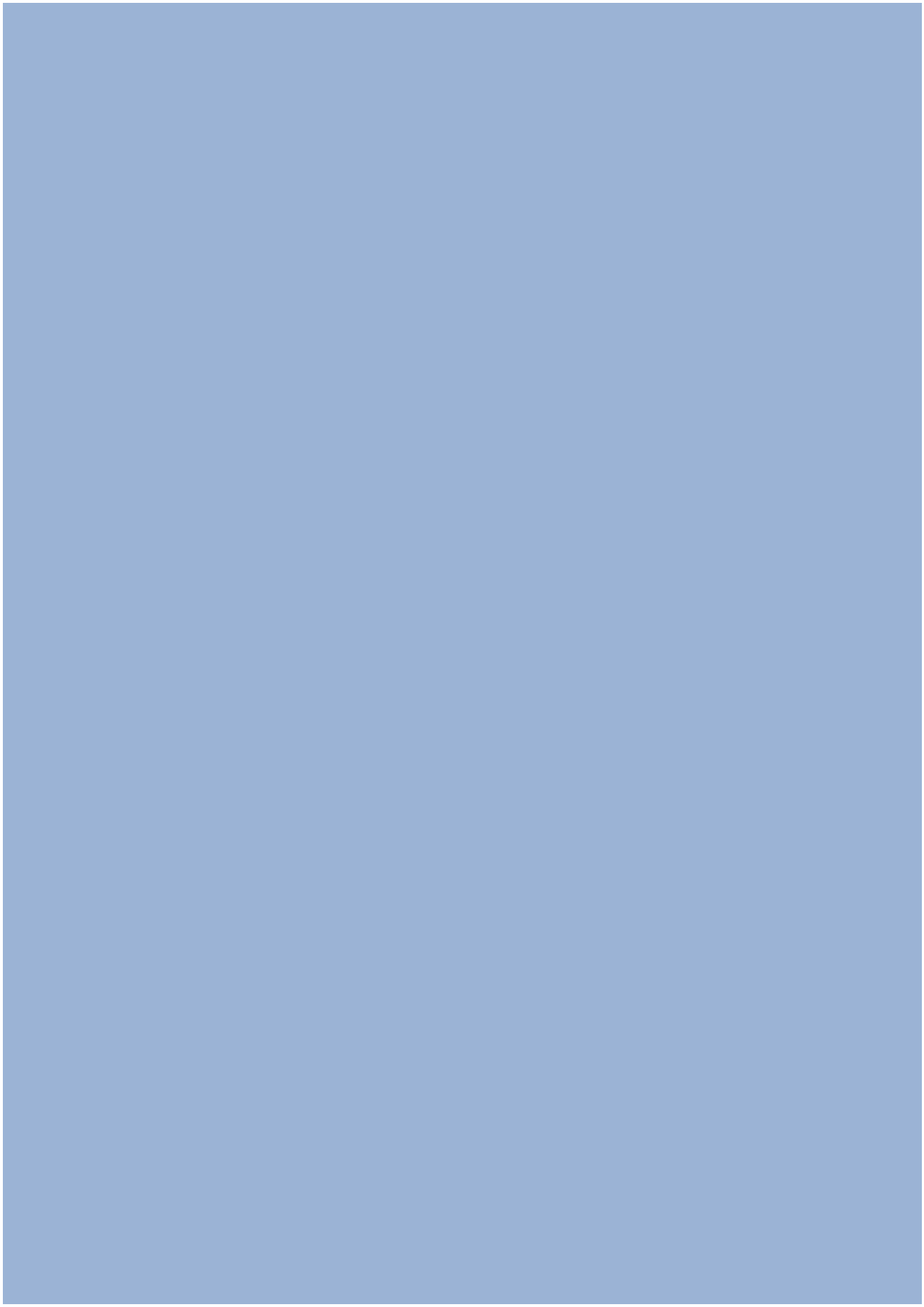


PACIFIC METEOROLOGICAL COUNCIL

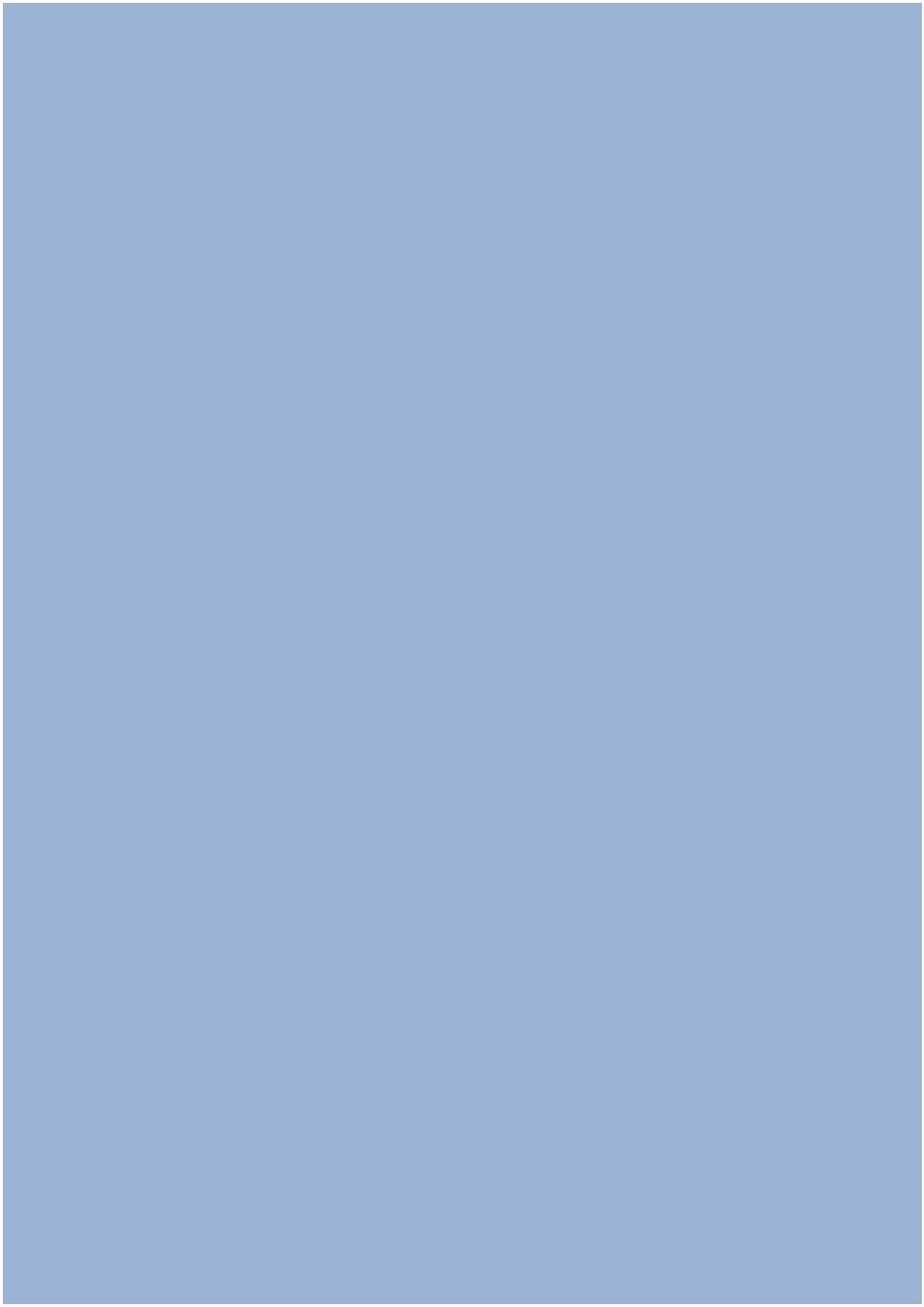
Director (Acting): Fred Jockley

fjockley@meteo.gov.vu

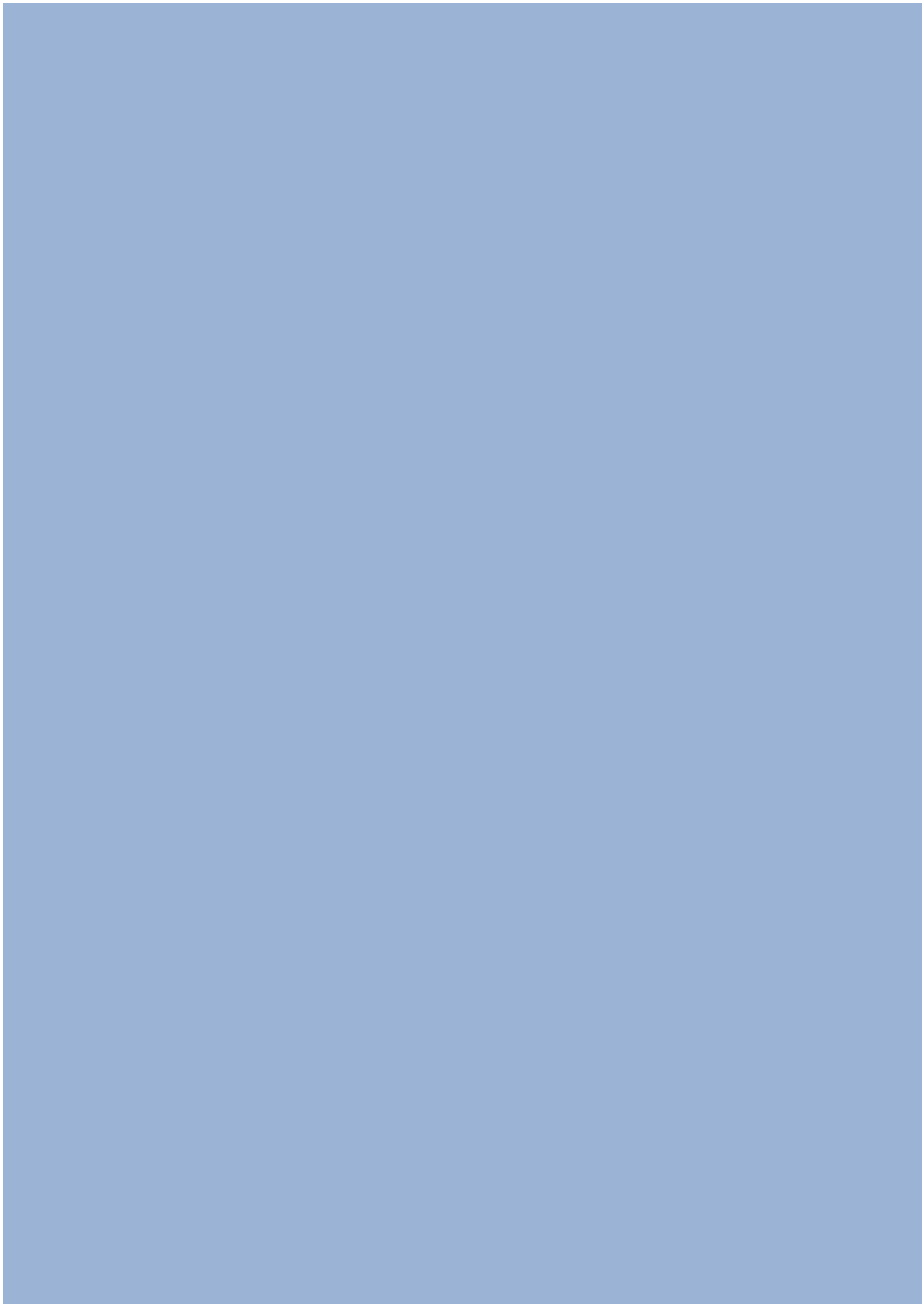
16.17 Australia



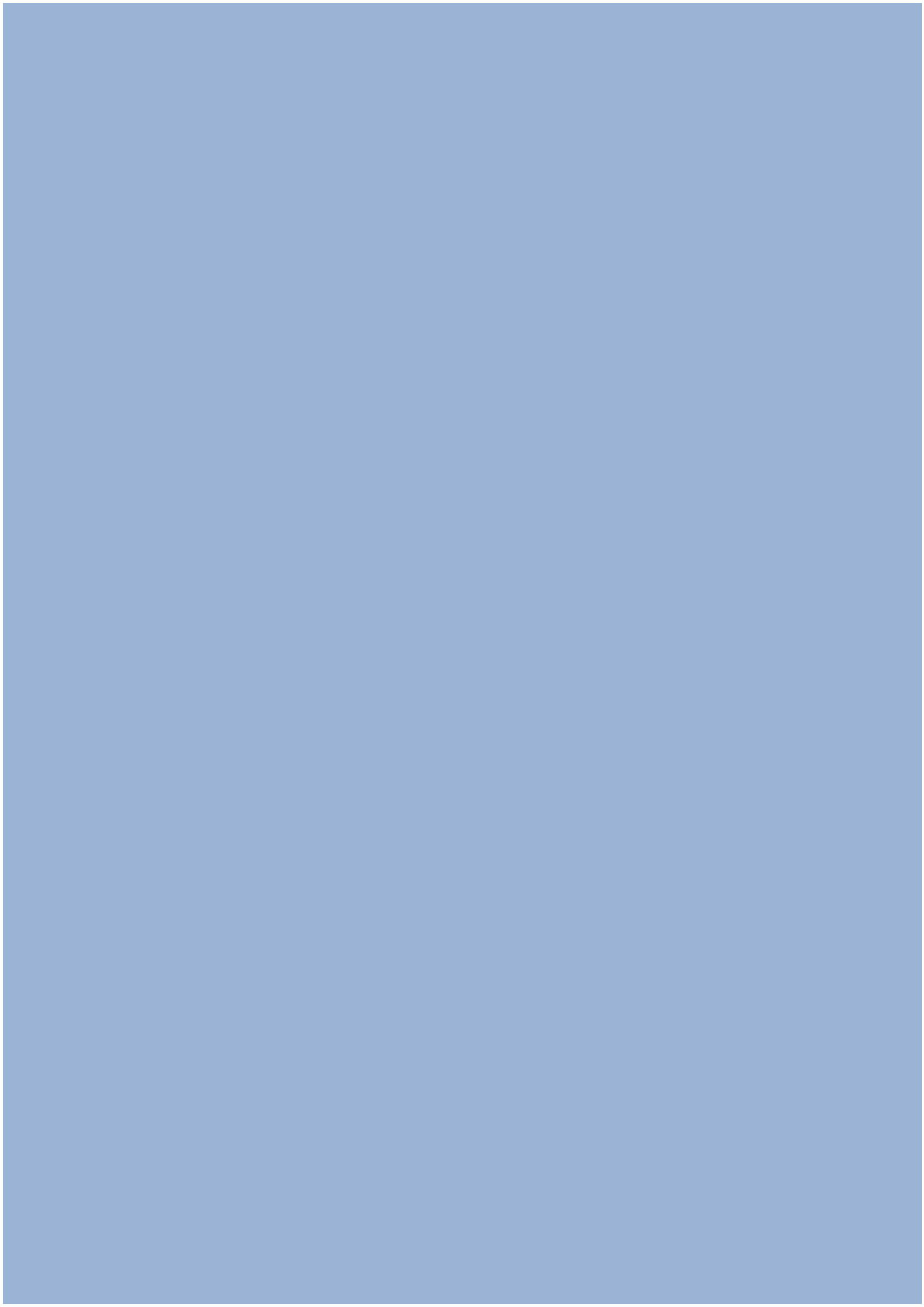
16.18 New Zealand



16.19 United Kingdom



16.20 United States of America



ANNEX 2. Agenda

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

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

PROVISIONAL AGENDA

17 SEPTEMBER		DAY 1
8:00am- 8:45		Registration
8:45am – 9:30am	Agenda Item 1 1.1 1.2 1.3 1.4	Opening Ceremony Cultural Welcome Opening Prayer Keynote address Keynote remarks Official Opening
09:30am – 10:00am		Group Photo and Morning Tea
10:00am – 10:20am	Agenda Item 2 2.1 2.2 2.3	Organization of the Seventh Meeting of the Pacific Meteorological Council (PMC-7) Election of Chair and Vice Chair for PMC-7 Adoption of Agenda and Program of Work Establishment of Drafting Committee
10:20am – 10:30am	Agenda Item 3	Setting the Scene for PMC-7: Objectives and Expected Outcomes, PIMS Overview
10:30am – 10:50am	Agenda Item 4	Report on Actions Taken on Matters Arising from the 6th Meeting of the Pacific Meteorological Council (PMC-6) and Ministerial Meeting Outcomes
10:50am – 11:10am	Agenda Item 5	Updates on WMO Executive Council Decisions and RA_V Activities
11:10am – 11:30am	Agenda Item 6 6.1 6.2	Regional Priorities PIFS Leaders Meeting FRDP
11:30am – 11:50am	Agenda Item 7	Role of the National Meteorological and Hydrological Services in International and Regional Engagement
	Agenda Item 8	Weather Ready Pacific, Governance Structure and other global initiatives
11:50am – 12:10pm	8.1	Progress and Update on the Weather Ready Pacific
12:10pm – 12.30pm	8.2	Progress and Update on Early Warning for All (EW4All)

17 SEPTEMBER		DAY 1
12:30pm – 1:30pm		LUNCH Side Event 1: Transformative Early Warning Solutions for a Resilient Pasifiki: Tonga Mobile Application for Community Early Warning and Response System (MACRES) (Tonga Met/WMO) Side Event 2: Strengthening Pacific Climate Resilience through Van-KIRAPs Evolving Strategies (VMGD/APCC)
1:30pm - 1:50pm	8.3	Anticipatory Action Activities
1:50pm – 2:10pm	8.4 8.5	Update Systematic Observation Financing Facility (SOFF) Alignment of Weather Ready Pacific with Global Initiatives
2:10pm – 2:35pm	Agenda Item 9 9.1 9.2 9.3	Pacific Island Aviation Weather Services Progress and Updates of PIAWS Panel Activities ICAO Monitoring of Pacific OPMET Data Space Weather – Overview and Potential Impacts
2:35pm – 3:15pm	Agenda Item 10 10.1 10.2 10.3 10.4	Pacific Island Climate Services PICS Progress and Updates Updated Pacific Roadmap for Strengthening Climate Services 2024-2033 Pacific Regional Climate Centre Network Update VanKIRAP
3:40pm – 3 :55pm		Afternoon Tea
3:55pm- 4:30pm	Agenda Item 11 11.1 11.2 11.3	Coordination of Multi-Hazard Early Warning System, Services and activities Progress and Way forward on Coordinating MHEWS Enabling Children and Youth, Climate Change and Disaster Preparedness through MHEWS and DRR Education Embracing Business Continuity for effective MHEWS
		END OF DAY 1
6:00pm – 9:00pm		Welcome Reception hosted by the Government of Vanuatu Venue: Warwick Le Lagon-Vanuatu Resort by the Swimming Pool/Lagoon-side

18 SEPTEMBER		DAY 2
8:30am - 8:55am	Agenda Item 12	Hydrology and Flood Warning Services
	12.1	Progress and Updates
8:55am – 9:20am	Agenda Item 13	Pacific Island Training, Education and Research
	13.1	Progress and Updates
9:20am – 9:45am	Agenda Item 14	Pacific Island Communication and Infrastructure
	14.1	Progress and Updates
	14.2	Regional Instrumentation and Calibration Center
9:45am – 10:10am	Agenda Item 15	Pacific Island Marine Weather and Ocean Services
	15.1	Progress and Updates
10:10 – 10.25		MORNING TEA
10:25 am – 12.30	Agenda Item 16	Country and Territories Presentations
	16. 1	American Samoa
	16.2	Cook Islands
	16.3	Federated State of Micronesia
	16.4	Fiji
	16.5	Kiribati
	16.6	Marshall Islands
	16.7	Nauru
	16.8	Niue
	16.9	Palau
	16.10	PNG
	16.11	Samoa
	16.12	Solomon Islands
	16.13	Tokelau
12:30-1:30		LUNCH Side Event 1: Transformative Early Warning Solutions for a Resilient Pasifiki: Piloting Radar Technology for a Weather Ready Pacific – Tonga Weather Radar (Tonga Met/Meteo-Press/MetService) Side Event 2: Climate Watch App (VMGD)
1:30 – 3:00pm	16.14	Tonga
	16.15	Tuvalu
	16.16	Vanuatu
	16.17	Australia
	16.18	New Zealand
	16.19	France
	16.20	United Kingdom
	16.21	United States of America
3:00pm – 3:30	Agenda Item 17	Review of PMC and PMDP
	17.1	Update and Progress of Review
3:30-3:45		AFTERNOON TEA
3:45 – 4:30		CLOSED SESSION
	17.2	Strategic Direction for the Pacific Meteorological Desk Partnership
		End of Day 2

19 SEPTEMBER		DAY 3
8:30am-9:00am	Agenda Item 18 18.1 18.2 18.3	Supporting and Empowering Youth Gender Equality, Disability & Social Inclusion Inclusive Early Warning Early Action Pacific Disability Forum
9:00am – 9:30am	Agenda Item 19	Progress and Updates on Traditional Knowledge
9:30am – 9:50am	Agenda Item 20	Media Supporting Meteorological and Hydrological Services
9:50am -10:10am	Agenda Item 21	Update and Progress of the Pacific Partners Coordination Mechanism
10:10am – 10:30		MORNING TEA
10:30am-11:30am	Agenda Item 22 22.1 22.2 22.3	Pipeline Initiatives One Pacific (GCF) Hydrology (GCF) CREWS Programme, M&E Framework, Alignment with WRP and New Project
11:30am-12:00pm	Agenda Item 23	Emerging NMHS Priorities
12:00pm – 12:30pm	Agenda Item 24 24.1 24.2	Other Matters RA-V Tropical Cyclone Committee Statement Utilisation of meteorological satellite information provided by Himawari and future collaborations and Initiatives
12:30pm-2:00pm		Extended Lunch Side Event 1: Private Sector Session with Varysian
2:00pm - 4:00pm	Agenda Item 25	Review and Adopt the Report of PMC-7
4:00pm - 4:15pm	Agenda Item 26	Venue for the Eighth Meeting of the Pacific Meteorological Council (PMC-8) and the Fourth Ministerial Meeting on Meteorology (PMMM-4)
4:30pm	Agenda Item 27	Closure of PMC-7
6:00pm – 9:00pm		Closing Reception Hosted by the Government of Vanuatu Venue: Iririki Island Resort

ANNEX 3. Speeches

"At the Frontline of Weather, Climate, Water, and Ocean Action in the Pacific" Opening Address by the PMC-6 (Fiji) Chair, delivered by Mr. Misaeli Funaki, Director, Fiji Meteorological Service

Reverend Pastor Thomson Aki, Vanuatu Christian Church. Thank you, Sir, for the prayer and timely message. There is other better place to start a meeting than at the loving arms of our gracious Lord. Tenkyu tumas Sir,

Honourable John Salong, Minister responsible for the Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy and Disaster Management,

Mr. David Hiba, the newly confirmed President of the WMO Regional Association V and Director of the Solomon Islands Meteorological Service,

Mr Cyrille Honorre, the Representative of the WMO Secretary-General,

Directors, Heads and Seniors Officials from the National Meteorological and Hydrological Services, NDMO and other government officials,

Development Partners, United Nations and CROP agencies, the Private Sector Community,

Ladies and gentlemen, and I would like to make special mention of the women leaders in Meteorology and Hydrology who have joined us for this meeting,

Welcome to the 7th Meeting of the Pacific Meteorological Council.

I want to acknowledge the Government of Vanuatu for the enriching Traditional Welcome Ceremony. We are defined by our Tradition & Culture, and for it to accorded to us, we thank you.

I also thank the Government of Vanuatu for hosting us. Hon Minister John Salong and the members of your wonderful Ministry; Acting Director General Abraham Nasak and Acting Director, Fred Jockley and all the staff aswell as the members of the local hosting committee, Tenkyu tumas for all the effort in organising the meeting.

Before, I move on, I would like to inform the Meeting that New Caledonia, French Polynesia and France extend their well wishes and apologise for not being here today.

To my fellow Met Directors, the Legendary Reggie White from RMI extend his apologies as well. He will pay a visit to your offices when you pay for him to visit you.

I would like to acknowledge the wonderful contribution of member of this community who have joined other organisation including Mr.Ofa Fa'anunu, former president of RA-V and Director of Tonga Met Service, Dr. Moleni Tuuholoaki and Mr. Bipendra Prakash (the former Chair and the real Chair of PMC-6). To those who I haven't mentioned in here, please accept my appreciation as well.

In this day of regionalisation and shifting needs, it's hard to find officers who started work and retire from the same organisation. In this regard, I recognise the great contribution of my dear friend Mr.Arona Ngari who is now enjoying the fruit of his work, happily retired in his beautiful Cook Islands. We looked forward to having him at this PMC but right now he is enjoying his fly fishing in Rarotonga, we will chat further when his fishing lure runs out so he can be available attend on our next gathering.

I would like this morning to again pay tribute to late Wilson Va'aua from Samoa Meteorological Service who was with us in Melbourne for a workshop a few months ago but unfortunately loss his life.

It is a loss for our community and as Chair, I would like on behalf of this Council share our collective condolence on the Director of Samoa Met. We remember him.

As our canoe continues this great voyage, I take this opportunity to welcome new members of the Council join us after the PMC-6; Laitia Fifita, new director for the Tonga Meteorological Service, Maara Vaiimene, the new Director of Cook Islands and Ms Asi Fangalua Halaleva-Pasilio, Director, Department of Economic Development, Natural Resources and Environment representing the Tokelau Met services and Mr. Fred Jockley the Acting Director of VMDG.

Also take the opportunity to acknowledge other Met Services that have joined this meeting for the first time; we have the Japan Meteorological Agency, China Meteorological Administration and the Korean Meteorological Institute. We welcome and thank you for joining our meeting.

I would also like to welcome back the UKMO to the table.

In 1991, SPREP commissioned the Australian Bureau of Meteorology to undertake a study called The Changing Climate in Paradise: Feasibility Study on Climate Monitoring and Impacts in the South West Pacific and one of its recommendation was to better structure the Met services in recognition of the changing climate and greater need to improve coordination amongst us.

So, in 1993, in this very hotel meeting was convened the First ever Regional Met Services Directors (RMSD) Meeting. There were about 50 participants to that meeting and 9 recommendations.

Fast forward 30 years later, you met in Fiji in 2023 for the sixth Meeting of the Pacific Meteorological Council (PMC-6) and The 3rd Pacific Ministerial Meeting on Meteorology (PMMM-3) which resulted in the Namaka Declaration and the first meeting of the development partners.

There were over 100 recommendations from last year. I am happy to report as the Chair that we have made significant progress in some areas through the PMC Panels, the Secretariat, development partners and national and regional projects; much of this progress, I will present more on agenda Item 4: Matters arising from the PMC-6, however, I would like to take this opportunity to mention a few.

- Weather Ready Pacific, the PMC flagship programme is one that has made significant progress from a proposal last year to having it operational this year.
- During this period, we also welcomed new contribution from New Zealand, Japan and the United Kingdom who joined Australia as the initial contributors to the Weather Ready Pacific Initiative.
- Progress on the work of the RIC and RTC in Fiji.
- The wonderful work that ClimSA and CosPPAC project continue to do in the region, and in bringing it home, the progress of the nationally driven and owned.
- VanKIRAP Project right here in beloved Vanuatu.

May I remind us, that even though the number of recommendations and participants has increased from the first RMSD Meeting in 1993, they revolve around the same thematic area. Let us continue this great work.

As I conclude, Fiji thanks you all in your contribution and assistance in our tenure as Chair of this esteemed Council. As we embark on this important meeting, I'd like to remind us on that the work we are doing is for the safety, well-being, development aspirations of our people who look to us to guidance and protection.

May the Good Lord to Lead our community. Vinaka Saka Vakalevu.

Opening Address, Mr. Sefanaia Nawadra, Director General of SPREP

Pastor Thomson Aki, Vice Chairman of the Vanuatu Christian Council,

Honorable John Dahmasing Salong, Minister responsible for the Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy, and Disaster Management,

Mr Cyrille Honore, Director, Disaster Risk Reduction, Muti-Hazards Early Warning System (MHEWS) Office and Public Weather Services,

Mr. Misaeli Funaki, Chairman of the PMC and Director of the Fiji Meteorological Services,

Mr. David Hiba, Acting President of the WMO Regional Association V and Director of the Solomon Islands Meteorological Service,

Directors, Heads, and Senior Officials from National Meteorological and Hydrological Services (NMHSs), National Disaster Management Offices (NDMOs), and other government entities,

Development Partners,

United Nations and CROP agencies,

Private Sector representatives, led by Varysian

Ladies and Gentlemen, with a special mention to the women leaders in meteorology and hydrology who were trained last week by CREWS and are with us today,

Halo and good morning to all.

It is a great honor to address you on this important occasion, the Seventh Pacific Meteorological Council (PMC-7). I would like to begin by extending my heartfelt gratitude to the Honorable Minister John Dahmasing Salong and the Government of Vanuatu for hosting this important meeting and for their unwavering support in advancing meteorological services across the Pacific.

I would also like to specifically acknowledge the efforts of Acting Director General Abraham Nasak, Acting Director Fred Jockley, and the members of the local organizing committee for their dedicated work in making this meeting a success.

I take this opportunity to welcome the new members of the PMC who are joining us for the first time—our colleagues from the Cook Islands, Tonga, Vanuatu, and Tokelau.

I also extend a warm welcome to Varysian and the private sector representatives who have joined us for the third time. Their continued partnership is vital to strengthening the NMHSs across the region. I encourage all of you to explore new avenues of collaboration and innovation throughout this meeting.

I also wish to warmly welcome those attending this meeting for the first time.

Reflections and Significance of PMC-7: This Seventh Pacific Meteorological Council meeting is significant for several reasons. We are once again convening in Vanuatu, which holds historical importance for our meteorological community.

Just over thirty years ago, in 1993, the region's meteorological leaders met here in Port Vila for the first time, laying the groundwork for what would later become the Regional Meteorological Services Directors (RMSD) Meeting.

Over the years, Vanuatu has consistently been at the forefront of climate vulnerability, facing numerous tropical cyclones, volcanic eruptions, tsunamis, and earthquakes.

The discussions in 1993 centered on how our meteorological services could work together to understand and mitigate the impacts of climate change.

That initial meeting led to the formation of the Pacific Meteorological Council (PMC) in 2011 in the Marshall Islands, and it has since grown in scope and importance. What started with just four agenda items in 1993 and about 50 participants has now expanded to over 20 agenda items with almost 200 participants, demonstrating how far we've come in addressing the complex challenges faced by our region.

Progress Since PMC-6: It has been only 12 months since our last meeting in Nadi, Fiji, where we convened as PMC-6 and also held the 3rd Pacific Ministerial Meeting on Meteorology.

I am pleased to report that we have made substantial progress. The Pacific Meteorological Council's sixth meeting laid the foundation for various initiatives, particularly the Weather Ready Pacific (WRP) program. The WRP manager has been recruited with key positions also being recruited. There is also increased funding support particularly from the Governments of New Zealand, the United Kingdom, and Japan. These commitments will compliment the first investment by the Government of Australia.

The progress we've achieved is a testament to the collaborative efforts of our region's meteorological services and the ongoing support of our development partners. I want to extend our deepest gratitude to the many partners who have been integral to the success of our strategic initiatives and welcome the new partners that have joined, renewed, or plan to renew their support.

This meeting also follows two significant regional events—the 53rd Pacific Island Forum Leaders Meeting and the 4th SPREP Executive Board Meeting—where climate change continues to remain the region's key priority

30 years ago, the journey for more cooperation and cohesion started, and today the progress made by the PMC and expert panels as well as the support towards the Weather Ready Pacific program is a testament to those that had the foresight and wisdom to drive the success of the work we see here today.

That said, there is still more work to be done – every single partner and relevant entity is needed, so I look to you, Donors, CROP Agencies, UN Agencies and Technical and Development partners for your continued support. .

SPREP remains committed to enhancing its support to this community, which will be discussed under Agenda 17.1 and during the closed session under Agenda 17.2.

Looking Ahead: Thirty years after our first gathering here in Vanuatu, we are once again looking to your collective leadership and guidance as a Council as we chart the path forward, particularly with the implementation of the Weather Ready Pacific program and enhancing coordination across the region.

Acknowledgements: For every PMC, the secretariat undertakes the task of fundraising for this meeting.

The convening of PMC-7 has been possible thanks to the strong partnerships that include the Government of Vanuatu, the VanKIRAP project, SPREP, the Asian Development Bank, the Government of Ireland, Climate Risk Early Warning Systems (CREWS), World Meteorological Organization (WMO), Government of Australia through the Department of Foreign Affairs and Trade, Government of New Zealand, the National Oceanic and Atmospheric Administration (NOAA), and Varysian.

On Friday, members of this council will have an important task to meet and make important decisions on the Weather Ready Pacific at its first Steering Committee meeting.

You have a full week ahead of you, with many critical discussions on the future of meteorological services in the Pacific. I wish you fruitful and productive deliberations over the coming days.

Tankio Tumas.

Opening Address, Mr. Cyrille Honoré, WMO

Pastor Thomson Aki, Vice Chairman of the Vanuatu Christian Council,

Honorable John Dahmasing Salong, Minister responsible for the Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy, and Disaster Management,

Mr. Fred Robert Jockley, Permanent Representative of Vanuatu with the World Meteorological Organizations (WMO), Acting Director of Vanuatu Meteorology and Geo-Hazard Department (VMGD),

Mr. Sefanaia Nawadra, Director-General of the Secretariat of the Pacific Regional Environment Programme (SPREP),

Mr. Misaeli Funaki, Chairman of the PMC and Director of the Fiji Meteorological Services,

Mr. David Hiba, Acting President of the WMO Regional Association V and Director of the Solomon Islands Meteorological Service,

Directors, Heads, and Senior Officials from National Meteorological and Hydrological Services (NMHSs), National Disaster Management Offices (NDMOs), and other government entities,

Churches Leaders,

Development Partners,

United Nations and CROP agencies,

Private Sectors representatives,

Non-Government Organizations or Civil Society Organizations representatives

Ladies and Gentlemen, everyone working in this hotel and in the background to put together the programmes, logistics arrangements for PMC-7 and Women leadership in meteorology and hydrology training workshop and the media and communication training workshop and the PMC Panel discussions,

Good morning to all.

It is a great honor to be here in Vanuatu and to address you on behalf of Prof. Celeste Saulo, Secretary-General of the World Meteorological Organizations (WMO) on this very important occasion, the Seventh Pacific Meteorological Council (PMC-7). I would like to start by extending Prof. Saulo's greetings to Honorable Minister John Dahmasing Salong and the Government of Vanuatu for hosting PMC-7 and related meeting which has taken place last week.

I would also like to acknowledge the Ministry of Climate Change Adaptation, Meteorology, Geo-Hazard, Environment, Energy, Environment and Disaster Management, staff members the Ministry, local organizing committee for your commitments to making this meeting a success event.

I take this opportunity to join others who spoke before me to welcome you to PMC-7 and to share some Reflections on WMO and PMC:

This Seventh Pacific Meteorological Council meeting is significant for WMO for a number of reasons.

WMO Executive Council, during its 78th session, adopted a number of strategic matters - a road map to guide the WMO coordinated contribution to the Early Warnings for All Initiative (EW4All), the Implementation Plan for the Global Greenhouse Gas Watch,

The Executive Council also discussed a few new initiatives – noting the Resource Mobilization Strategy developed by the Secretary-General, decided on the development of a Youth Action Plan.

On technical matters, the Executive Council also continued to discuss the following:

- national early warning systems for drought
- meteorological and volcanological services in support of international civil aviation
- collection and dissemination of marine meteorological and oceanographic information using the International Maritime Organization (IMO) Recognized Mobile Satellite Services (RMSS))
- acceleration of the climate data stewardship and data rescue implementation
- establishment and functionalities of WMO accredited entity supporting El Niño/La Niña information
- implementing mechanisms for health science and services
- Global Basic Observing Network (GBON) and Systematic Observations Financing Facility (SOFF)
- transition from WIS 1.0 and Global Telecommunication System (GTS) to WIS 2.0, including capacity development)
- 4-year Plan for WMO activities related to Space Weather 2024–2027.

Looking through the programme and agenda of this meeting, these point to the core technical works of WMO such climate services, aviation weather services, hydrology services, ocean and marine services, infrastructure and telecommunications, education, training and research, and inclusion. All of those are of importance, as all our common efforts aim at supporting the people in the islands, improving their daily lives in addition to keeping them as safe as possible in the context of the changing climate that we are all aware of.

EW4All initiative provides strategic avenues for coordination between global and regional partners and mechanisms such as PMC to provide support to the Pacific islands countries and territories to achieve their SDGs and Sendai Framework targets, also in alignment with the 2050 Blue Pacific Strategy and the Framework for Resilient Development in the Pacific.

I would like to follow-up on the excellent remarks by the DG of SPREP recommending to open up and invite more partners to join forces with PMC. As you may be aware of, the United Nations Secretary General is supported by a high level advisory panel on EW4All initiative. As the value of the initiative is precisely about working together, at its last meeting, on 24th June 2024, the Panel also strongly advised on the need to “broaden the tent” and further work with all possible partners of good will to meet this huge challenge, also highlighting the crucial need for countries to take ownership and engage appropriately. Please count on WMO to support this collaborative approach, leveraging all possible mechanisms to support countries hydromet and early warning capacity development, working with PMC,WRP,CREWS, SOFF and others.

More importantly, Prof. Celeste Saulo, Secretary-General of WMO having taken her office in January this year, already recently visited the region and demonstrated WMO commitment to supporting the region. Prof. Saulo, during her debriefing at HQ after her visit, shared with us she was impressed by the development of meteorology and hydrology in the region and also by the collective engagement and ownership of future developments in this very specific region of yours.

Looking Ahead, 2025 will be a very busy year :

WMO strategic planning process towards the next financial period 2028-2031, including regional consultations of Members.

An Extraordinary session of the WMO Commission for Weather, Climate, Hydrological, Marine and Related Environmental Services and Applications will be held virtually on 24 to 26 of March 2025 to consider EW4ALL and related Technical regulations amendments in particular. All Members will be consulted by the end of this year , I would like to encourage you to please engage in this review and contribute to this important development.

EC-79 will take place from 16 to 20 June 2025 at the WMO headquarters in Geneva.

Cg-Ext(2025) will take place from 20 to 24 October 2025 at WMO headquarters in Geneva to consider: EW4All, including amendments to Technical Regulations; regional reform of WMO,all topics of high relevance for the region.

Last but not least, the nineteenth session of RA V (RA V-19) is tentatively scheduled for early May 2025, and in response to Members' feedback that the last face-to-face RA V session was convened in 2018, RA V-19 will be a physical meeting. The session will elect the president and vice-president of RA V and the Regional Hydrological Adviser. It will also discuss the working structure of the RA V subsidiary bodies and critical technical matters in the region. More details will be communicated with RA V Members in due course.

I would like to thank SPREP for organizing this meeting. I would also like to thank the following co-sponsors of PMC-7: the Government of Vanuatu, the VanKIRAP project, SPREP, the Asian Development Bank and the Government of Ireland, Climate Risk Early Warning Systems Initiative (CREWS), Government of Australia through the Department of Foreign Affairs and Trade, Government of New Zealand, National Oceanic and Atmospheric Administration (NOAA) of the United States and Varysian,

I wish you all fruitful and productive deliberations over the coming days.

Thank you for your attention, tankiu tumas !

Opening Address, Hon. John Salong, Minister of Climate Change, Republic of Vanuatu

Sefanaia Nawadra, Director General, Secretariat of the Pacific Regional Environment Programme (SPREP),

Directors of National Meteorological Services and NDMOs,

Representatives of the UN and Regional Agencies,

Distinguished delegates, esteemed colleagues, ladies, and gentlemen,

It is my great honor and privilege to welcome you all to the Seventh Pacific Meteorological Council Meeting here in Port Vila, Vanuatu. This gathering marks a crucial moment in our collective efforts to address the pressing challenges of climate change and its profound impacts on our region – impacts on our communities, economies and natural ecosystems.

The Pacific is at the forefront of climate change, with our communities experiencing its effects more acutely than almost anywhere else in the world. From rising sea levels to increasingly severe weather events, the challenges we face are unprecedented. In March, last year, Vanuatu witnessed unprecedented back-to-back Severe Tropical Cyclones Kevin and Judy that caused widespead destruction across the provinces affecting at least 80% of the country's population. However, with these challenges come opportunities for collaboration, innovation, and leadership.

As the Minister of Climate Change for Vanuatu, I am deeply aware of the responsibilities we bear, not just to our own citizens, but to the entire Pacific region. The decisions we make and the strategies we develop during this meeting will shape the future of our nations and the well-being of our people.

The Vanuatu National Sustainable Development Plan – The Peoples Plan 2030, envisions a national where early warning systems are part of a broader framework to enhance resilience. By strengthening disaster preparedness, modernising climate monitoring, and empowering communities, Vanuatu is laying the foundation for a sustainable future – one where everyone is better equipped to face the challenges posted by climate change.

The Vanuatu Meteorology and Geohazards Department, in collaboration with SPREP, WMO, and the Green Climate Fund (GCF), is currently working to commission Vanuatu's first-ever weather radar system under the VanKIRAP Project. This initiative will not only enhance our early warning capabilities but also deliver more reliable alerts to our citizens. This initiative will directly benefit about 50% of Vanuatu's population.

Furthermore, the climate and ocean observation network has been significantly expanded to include river gauges in Sarakata and other key catchment areas, wave buoys across all six provinces, and active engagement with communities and schools through citizen science and the incorporation of traditional knowledge. Last year, we launched the Vanuatu Traditional Knowledge Indicators Booklet, with over 50 indicators of weather and climate to support the use of traditional knowledge in remote communities in the 'last mile'

This Government is constructing a new Warning Centre in Luganville, which will provide critical services to Santo Island's second-largest town and extend coverage to the northern part of the country.

The theme of this year's meeting, focusing on enhancing climate resilience and weather, climate, and water services, underscores the vital role that meteorological services play in our response to climate change. Accurate and timely weather and climate information is essential for safeguarding lives, protecting livelihoods, and guiding sustainable development.

Over the next few days, we will focus on crucial themes outlined in the “Namaka Ministerial Declaration for Sustainable Weather, Climate, Ocean and Water Services for a Resilient Blue Pacific”, such as climate services, disaster risk reduction, and the enhancement of our meteorological and hydrological capabilities. These discussions are not just about exchanging knowledge but also about driving tangible actions that can safeguard our Pacific nations.

I encourage all participants to actively engage in these sessions, as the outcomes will shape the future of climate resilience in our region. Your insights and contributions are vital as we work together to build a more sustainable and resilient Pacific.

Thank you for your dedication, and I look forward to the productive discussions ahead.

I am confident that the discussions and collaborations over the next few days will yield valuable insights and concrete actions that will strengthen our regional cooperation and our ability to respond to climate-related challenges.

Furthermore, I look forward to presenting the outcome of your discussions to the Fourth Pacific Ministerial Meeting on Meteorology (PMMM-4) that is scheduled to be held in the State of Hawaii, United States of America next year.

I encourage you to expedite the implementation of the Weather Ready Pacific Programme by working in partnership with National Meteorological, Hydrological and NDMOs and others key stakeholders to realise the UN Early Warning System for All (EWS4All) but also the 2050 Strategy for the Blue Pacific Continent.

Finally, I would like to formally express my appreciation to SPREP, the World Meteorological Organisation (WMO), and all technical partners of the PMC for their diligent preparations in collaboration with the Government of Vanuatu, the Vanuatu Meteorology and Geo-Hazards Department, and the local organizing committee. Additionally, I acknowledge the generous financial support provided by the Green Climate Fund (GCF) through the VanKIRAP project, as well as contributions from the Irish Funding and CREWS projects.

Let us approach this meeting with a spirit of unity, innovation, and determination. Together, we can build a more resilient and sustainable future for the Pacific.

Thank you, and I wish you all a productive and successful meeting.

ANNEX 4. List of Participants

	NAME	COUNTRY	HOST, PARTNERS AND PMC SECRETARIAT
1	Elinor Lutu-McMoore	American Samoa	
2	Andrew Johnson	Australia	
3	Andrew Jones	Australia	
4	Simon McGree	Australia	
5	John Strickland	Cook Islands	
6	Maarametua Vaiimene	Cook Islands	
7	Romehael Rauraa	Cook Islands	
8	Johannes Berdon	Federated States of Micronesia	
9	Wilfred Nanpei	Federated States of Micronesia	
10	Harish Pratap	Fiji	
11	Leonard Bale	Fiji	
12	Misaeli Funaki	Fiji	
13	Varanisese Vunyayawa	Fiji	
14	Mauna Eria	Kiribati	
15	Miriam Kataunati	Kiribati	
16	Ueneta Toorua	Kiribati	
17	Lee Jacklick	Marshall Islands	
18	Thomas Zackious	Marshall Islands	
19	Yetta Aliven	Marshall Islands	
20	Graymea Ika	Nauru	
21	Micheala Detenamo	Nauru	
22	Sebastian Detenamo	Nauru	
23	Benjamin McFadden	New Zealand	
24	James Lunny	New Zealand	
25	Kevin Alder	New Zealand	
26	Stephen Hunt	New Zealand	
27	Clemencia Sioneholo	Niue	
28	Lanze Mautama	Niue	
29	Rossylynn Mitiepo	Niue	
30	Zelrianne Mokoia	Niue	
31	Dilwei M Ngemaes	Palau	
32	Joyleen Temengil	Palau	

	NAME	COUNTRY	HOST, PARTNERS AND PMC SECRETARIAT
33	Kikuko Mochimaru	Palau	
34	Fiada Kede	Papua New Guinea	
35	Jimmy Gomoga	Papua New Guinea	
36	Justina Kawi	Papua New Guinea	
37	Maino Virobo	Papua New Guinea	
38	Emarosa Romeo Lafoia	Samoa	
39	Luteru Tauvale	Samoa	
40	Alick Haruhiru	Solomon Islands	
41	David Hiba Hiriasia	Solomon Islands	
42	Delia Livingstone	Solomon Islands	
43	Asi Halaleva-Pasilio	Tokelau	
44	Mele Lakai	Tonga	
45	Rennie Vaiomounga	Tonga	
46	Soane Laitia Fifita	Tonga	
47	Elifaleti Ene	Tuvalu	
48	Leiti Fasiai	Tuvalu	
49	Pisi Seleganiu	Tuvalu	
50	Sulami Resture	Tuvalu	
51	Tauala Katea	Tuvalu	
52	Henry Thompson	United Kingdom	
53	Karen McCourt	United Kingdom	
54	Alexis Roberts	United States of America	
55	Andrew Horan	United States of America	
56	Daniel Muller	United States of America	
57	Raymond Tanabe	United States of America	
58	Do-Shick Shin		APEC Climate Center
59	Jeongmin Han		APEC Climate Center
60	Ji Hyun Kim		APEC Climate Center
61	Jin Ho Yoo		APEC Climate Center
62	Jong Ahn Chun		APEC Climate Center
63	Seongkyu Lee		APEC Climate Center
64	Michal Choma		Barani Design Technologies
65	Dennis Bellew		Baron Weather
66	Corinne Malot		Campbell Scientific Australia

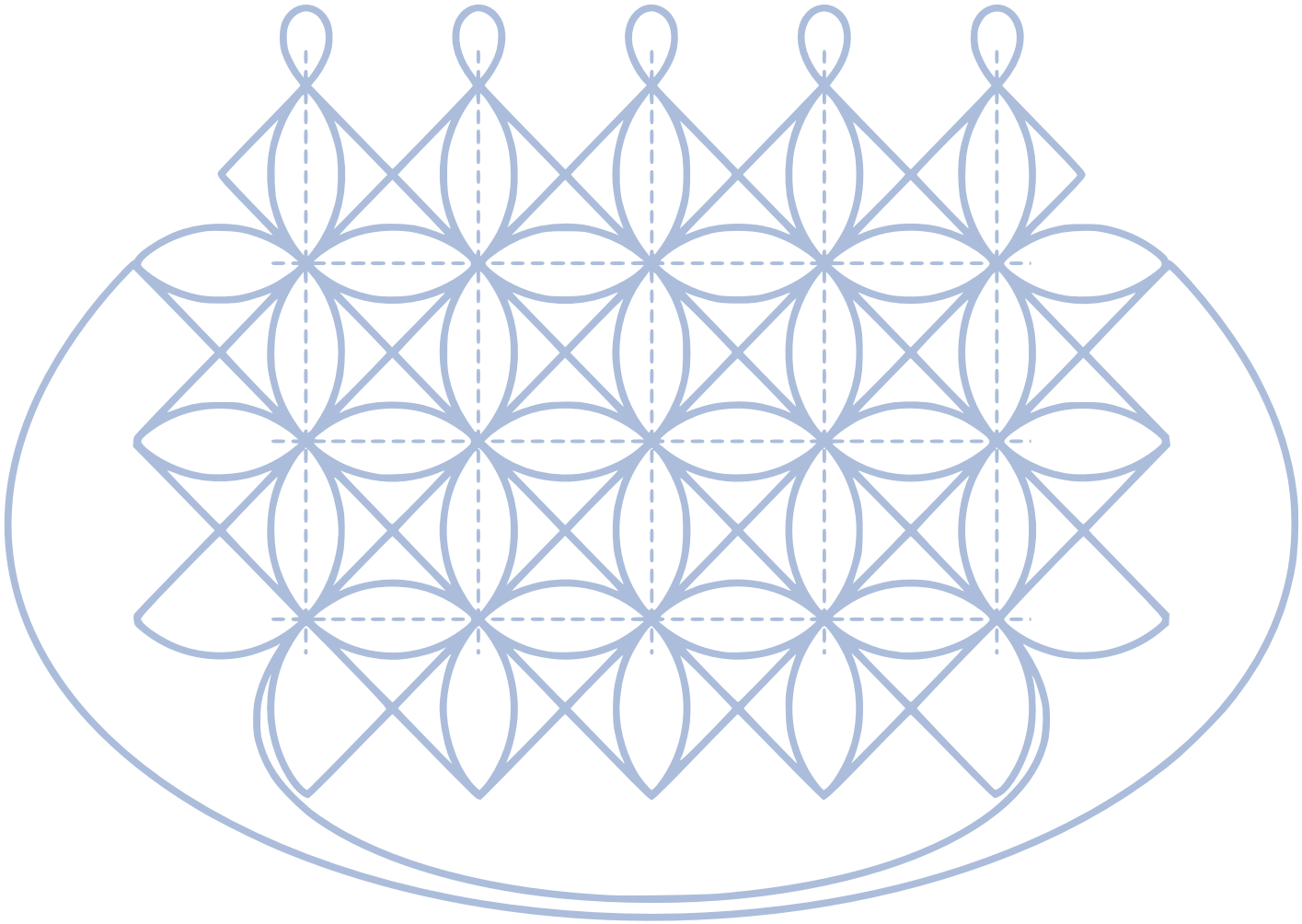
	NAME	COUNTRY	HOST, PARTNERS AND PMC SECRETARIAT
67	Paul Bridge		Campbell Scientific Australia
68	Simon Leeds		Campbell Scientific Australia
69	Xiaoping Hu		China Meteorological Administration
70	Yong Li		China Meteorological Administration
71	Paula Acethorp		Civil Aviation Authority, New Zealand
72	Rémi Cousin		Columbia University
73	Simon Mason		Columbia University
74	Marian Sheppard		CSIRO
75	Rebecca Gregory		CSIRO
76	Edna Toara		Daily Post
77	Melissa Morgan		Department of Foreign Affairs and Trade, Australia
78	Duncan Tippins		DTN APAC
79	Philip Perkins		DTN APAC (t/a Weatherzone)
80	Shannon Anshee		Earthwatch Australia
81	Rebecca Williams		EWR Radar Systems
82	Koji Kuroiwa		JICA
83	Megumi Tsukizoe		JICA
84	Nila Prasad		JICA
85	Takashi Oba		JICA
86	Akira Okagaki		Japan Meteorological Agency
87	Daniel Rodger		JB Pacific
88	Michal Najman		Meteopress
89	Zuzana Pestova		Meteopress
90	Jenna Priore		Ministry of Foreign Affairs and Trade, New Zealand
91	Rebekah Robertson		Ministry of Foreign Affairs and Trade, New Zealand
92	Alan Porteous		NIWA
93	Anal Anuragh Chandra		NIWA
94	Connon Andrews		NIWA
95	Graham Elley		NIWA
96	Molly Powers-Tora		NIWA
97	Robson Silas Tigona		National University of Vanuatu
98	Andrew Tupper		Natural Hazards Consulting
99	Julienne Foo		OTT HydroMet
100	Hwee Min Tang		OTT Hydromet

	NAME	COUNTRY	HOST, PARTNERS AND PMC SECRETARIAT
101	Narend Kumar		Pacific Aviation Safety Office (PASO)
102	Bipen Prakash		SPC
103	Herve Damlamian		SPC
104	Jacqueline Reid		SPC
105	Moleni Tu'uholoaki		SPC
106	Peter Sinclair		SPC
107	Zulfikar Begg		SPC
108	Nathan Fraser		Pacific Cooperation Broadcasting Ltd.
109	Ashnil Kumar		Pacific Technologies Ltd, New Zealand
110	Danish Khalil		Pacific Technologies Ltd, New Zealand
111	Beomkyu Choi		SI Analytics
112	David Smith		SI Analytics
113	Doyi Kim		SI Analytics
114	Jinjoo Kim		SI Analytics
115	Yeji Choi		SI Analytics
116	Thierry Nervale		Solomon Islands Maritime Authority
117	Christina Leala-Gale		Pacifc Tourism Organisation (SPTO)
118	Ashish Raval		Synoptic Data PBC
119	Sebastien Boulay		Tomorrow.io
120	Vishnu Jeyarajan		Tomorrow.io
121	Elisapeta Eteuati		United Nations Environment Programme (UNEP)
122	Gabrielle Emery		UNDRR
123	Nazgul Borkosheva		UNDRR
124	Elizabeth Mulvihill		University Corporation for Atmospheric Research (UCAR)
125	Martin Steinson		University Corporation for Atmospheric Research (UCAR)
126	Wendy Gram		University Corporation for Atmospheric Research (UCAR)
127	Paul Kucera		University Corporation for Atmospheric Research (UCAR)/COMET
128	Michalis Altous		Vaisala
129	Simon Harrod		Vaisala
130	Katie Barkans		Varysian
131	Tom Copping		Varysian
132	Sonia Dick		VBTC
133	Philip Perkins		Weatherzone
134	Ainsof So'o		SPREP

	NAME	COUNTRY	HOST, PARTNERS AND PMC SECRETARIAT
135	Audrey Brown-Pereira		SPREP
136	Chloe Luzar		SPREP
137	Christine Tuioti		SPREP
138	Clark Peteru		SPREP
139	Connie Sewere		SPREP
140	Florette Tuuau-Tiperia		SPREP
141	Naheed Hussein		SPREP
142	Ofa Fa'anunu		SPREP
143	Patricia Mallam		SPREP
144	Petra Chan Tung		SPREP
145	Philip Malsale		SPREP
146	Pomate Skelton-Soloi		SPREP
147	Salesa Nihmei		SPREP
148	Sefanaia Nawadra		SPREP
149	Setefano Finau		SPREP
150	Siosinamele Lui		SPREP
151	Sunny Seuseu		SPREP
152	Tagaloa Cooper		SPREP
153	Terry Atalifo		SPREP
154	Teuila Fruean		SPREP
155	Yvette Kerslake		SPREP
156	Abel Kalo Nalau		Vanuatu
157	Abraham Nasak		Vanuatu
158	Angus McIntyre Bani		Vanuatu
159	Anthony Tari Wong		Vanuatu
160	Antonella Nalau		Vanuatu
161	Athanase Worwor		Vanuatu
162	Levu Antfalo		Vanuatu
163	Brian Larapia		Vanuatu
164	Charles Sumbe		Vanuatu
165	Ellen Luke		Vanuatu
166	Esther Peter		Vanuatu
167	Esther Saul		Vanuatu
168	Franky Peter		Vanuatu

	NAME	COUNTRY	HOST, PARTNERS AND PMC SECRETARIAT
169	Fred Jockley		Vanuatu
170	Glenda Pakoa		Vanuatu
171	Grace Johnolson		Vanuatu
172	Janvion Cevuard		Vanuatu
173	Jerry Natugogona		Vanuatu
174	John Jr Niroa		Vanuatu
175	John Mangau		Vanuatu
176	John Manaseh		Vanuatu
177	John Ruben		Vanuatu
178	Hon. John Salong		Vanuatu
179	Joseph Peter		Vanuatu
180	Joseph Tapau Nishina		Vanuatu
181	Joseph Worwor		Vanuatu
182	Juanita Laga		Vanuatu
183	Kalsuak Godden		Vanuatu
184	Lucy Janet Obed		Vanuatu
185	Manley Tabi		Vanuatu
186	McGregor Mera Toaliu		Vanuatu
187	Melinda Aru		Vanuatu
188	Moirah Matou		Vanuatu
189	Neil Livingstone Malosu		Vanuatu
190	Nelson Kalo		Vanuatu
191	Nigel David		Vanuatu
192	Octavie Meltenoven		Vanuatu
193	Patterson Malsale		Vanuatu
194	Raviky Talae		Vanuatu
195	Rebecca Nihapi		Vanuatu
196	Ricardo William		Vanuatu
197	Royson Willie		Vanuatu
198	Ruben Mathias		Vanuatu
199	Sandrine Cevuard		Vanuatu
200	Steve Taga		Vanuatu
201	Tom Natick Laris		Vanuatu
202	Vanessa Sandy		Vanuatu

	NAME	COUNTRY	HOST, PARTNERS AND PMC SECRETARIAT
203	William Worworkon		Vanuatu
204	Winstan Jack		Vanuatu
205	Cyrille Jean Nicolas Honoré		WMO
206	Guilherme Varro		WMO
207	Henry Taiki		WMO
208	John Harding		WMO
209	Tessa Tafua		WMO
210	Tile Tofaeono		WMO
211	Xiao Zhou		WMO
212	Pastor Thomas Aki		Vanuatu
213	Jino Moli		Vanuatu
214	Helroy Samuel		Vanuatu
215	Pakoa Leo		Vanuatu



ANNEX 5. Media and Communications

The following is a digest of media stories captured by SPREP during the 7th Pacific Meteorological Council Meeting. Please visit the SPREP website www.sprep.org and social media pages, SPREP Facebook/X (Twitter) and Flicker for photos, reels and social media tiles featuring Pacific voices.

1. Pacific Meteorological Council returns to its place of origin

17 September 2024, Port Vila, Vanuatu – The Pacific Meteorological Council (PMC) Meeting has made a return to its place of origin in Port Vila, Vanuatu for its Seventh Meeting in session, under the theme 'At the frontline of weather climate, water and ocean action in the Pacific'.

The meeting brings together Council members, development partners, CROP agencies, United Nations agencies, collaborating organisations and institutions on the status and advancement of weather, climate, water, ocean and related development services to support national development and strengthen climate and weather services in the Pacific.

Minister of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy, and Disaster Management, Honourable John Salong delivered the opening remarks for Vanuatu as Chair of the PMC. He highlighted the struggles the Pacific continues to face being at the frontline of climate change and the critical task of strengthening Pacific climate and weather services.

Read more: https://www.sprep.org/news/pacific-meteorological-council-returns-to-its-place-of-origin

2. Vanuatu and SPREP strengthen collaboration with Strategic Partnership Framework

17 September 2024, Port Vila, Vanuatu – The Government of Vanuatu and the Secretariat of the Pacific Regional Environment Programme (SPREP) have committed to working together for a resilient Vanuatu environment by signing a Strategic Partnership Framework.

Held on the margins of the Seventh Pacific Meteorological Council Meeting in Port Vila, Vanuatu, the signing of the Strategic Partnership Framework signifies a high-level partnership that identifies Vanuatu's environment and resilience priorities, and outlines joint initiatives, activities and projects to be progressed by SPREP and Vanuatu to meet these priorities.

Minister of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Energy, and Disaster Management, Honourable John Salong welcomed the signing of the partnership agreement.

Read more: https://www.sprep.org/news/vanuatu-and-sprep-strengthen-collaboration-with-strategic-partnership-framework

3. Weather Ready Pacific convenes inaugural Steering Committee Meeting

20 September 2024, Port Vila, Vanuatu – Pacific island countries are vulnerable to a wide range of weather, climate and ocean extreme events. They have devastating impacts on Pacific communities through loss of life, damage to infrastructure, homes, agricultural lands, livelihoods, industries and economies.

Strengthening Pacific National Meteorological and Hydrological Services to deliver forecasts and warnings of these events to ensure the wellbeing of Pacific people is the key function of the Weather Ready Pacific Decadal Program (WRP).

Designed 'by the Pacific for the Pacific', the groundbreaking WRP initiative convened its inaugural steering committee meeting on 20 September 2024 in Port Vila, Vanuatu.

Read more: https://www.sprep.org/news/weather-ready-pacific-convenes-inaugural-steering-committee-meeting

4. Media and Communications training empower Pacific Met, Hydrology and Disaster Management communities

25 September 2024, Port Vila Vanuatu – Pacific communities bear the brunt of extreme weather events like tropical cyclones, earthquakes, volcanic eruptions, drought and flash floods, amongst other natural disasters.

The people of Vanuatu, who have just successfully hosted the Seventh Pacific Meteorological Council Meeting (PMC-7) in Port Vila, have seen the worst of these extreme weather events in recent years.

Read more: https://www.sprep.org/news/media-and-communications-training-empower-pacific-met-hydrology-and-disaster-management-communities

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