

Review of the Pacific Meteorological Council (PMC) and the Pacific Meteorological Desk Partnership (PMDP), 2024

Extended Executive Summary



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Cover image: Pacific sunset, south of Nauru (photo: Author)

List of acronyms used in Review

APAC	Asia and Pacific Office	PICI	Pacific Island Communications Infrastructure (Panel)
APCC	Asia-Pacific Economic Cooperation (APEC) Climate Centre	PICS	Pacific Island Climate Services (Panel)
ARM	US Atmospheric Radiation Measurement Programme	PICT	Pacific Island Countries and Territories
CAP	Common Alerting Protocol	PIETR	Pacific Island Education, Training, and Research (Panel)
CCA	Climate Change Adaptation	PIFS	Pacific Islands Forum Secretariat
COP	Conference of the Parties	PIMOS	Pacific Islands Marine and Ocean Services (Panel)
COSPPac	Climate and Oceans Support Program in the Pacific	PIMS	Pacific Islands Meteorological Strategy
CROP	Council of Regional Organisations of the Pacific	PKO	Pacific Key Outcome
CSIRO	Commonwealth Scientific and Industrial Research Organisation of Australia	PMC	Pacific Meteorological Council
DOE	US Department of Energy	PMDP	Pacific Meteorological Desk Partnership
DRM	Disaster Risk Management	PMMM	Pacific Ministerial Meeting on Meteorology
DRR	Disaster Risk Reduction	PNG	Papua New Guinea
ECOSOC	(UN) Economic and Social Council	PPCM	Pacific Partnership Coordination Mechanism
ESCAP	(UN) Economic and Social Commission for Asia and the Pacific	PTWS	Pacific Tsunami Warning System
ET	Expert Team	RA (V)	Regional Association of WMO (V)
ET	Expert Team	RANET	Radio and Internet for the Communications of Hydro-Meteorological and Climate Related Information
EW4ALL	Early Warnings For All Initiative	RCC	Regional Climate Centre
EWS	Early Warning System	RMSD	Regional Meteorological Services Directors (meeting)
FFA	Fisheries Forum Agency	ROAP	ICAO Regional Office for Asia and Pacific
FMS	Fiji Meteorological Service	RSMC	Regional Specialised Meteorological Centre
FRDP	Federated States of Micronesia	RTC	Regional Training Centre
GCF	Global Climate Fund	SERCOM	Commission for Weather, Climate, Hydrological, Marine and Related Environmental Services and Applications
GCOS	Global Climate Observing System	SIDS	Small Island Developing States
GFCs	Global Framework for Climate Services	SOFF	Systematic Observations Financing Facility
GOOS	Global Ocean Observing System	SOLAS	Safety of Lives at Sea convention
IAVCEI	International Association of Volcanology and Chemistry of the Earth's Interior	SOPAC	South Pacific Applied Geoscience Commission
IAVW	ICAO International Airways Volcano Watch	SPC	Secretariat of the Pacific Community
ICAO	International Civil Aviation Organization	SPREP	Secretariat of the Pacific Regional Environment Programme
ICT	Information and Communications Technology	SWFP	Severe Weather Forecasting Programme
IFRC	International Federation of Red Cross and Red Crescent Societies	TOR	Terms of Reference
IHO	International Hydrographic Organization	TOWS	Working Group on Tsunamis and Other Hazards related to Sea Level Warning and Mitigation Systems
IMO	International Maritime Organization	TT	Task Team
INFCOM	Commission for Observation, Infrastructure and Information Systems	UH	University of Honolulu
IOC	Intergovernmental Oceanographic Commission	UN	United Nations
ISC	International Science Council	UNDP	UN Development Programme
IUGG	International Union of Geodesy and Geophysics	UNDRR	United Nations Office for Disaster Risk Reduction
JMA	Japan Meteorological Agency	UNDS	UN Development System
MHEWS	Multi-Hazard Early Warning System	UNEP	UN Environment Programme
MHIS	Multi-Hazard Information Systems	UNESCO	United Nations Educational, Scientific and Cultural Organization
MOU	Memorandum of Understanding	UNFCCC	United Nations Framework Convention on Climate Change
NDMO	National Disaster Management Office	UNISDR	United Nations International Strategy for Disaster Reduction
NGO	Non-Government Organization	USA	United States of America
NIWA	NZ National Institute of Water and Atmospheric Research	USD	US Dollar
NMHS	National Meteorological and Hydrological Services	USGS	United States Geological Survey
NMS	National Meteorological Service	USP	University of South Pacific
NOAA	US National Oceanic and Atmospheric Administration	VMGD	Vanuatu Meteorology and Geohazard Department
OECD	Organisation for Economic Co-operation and Development	WG	Working Group
ORSNET	Oceania Regional Seismic Network	WIGOS	WMO Integrated Observing System
PASO	Pacific Aviation Safety Office	WIPPS	WMO Integrated Processing and Prediction System
PDP	Pacific Desk Partnership	WIS	WMO Information System
PHS	Pacific Hydrological Services (Panel)	WMO	World Meteorological Organization
PIAWS	Pacific Islands Aviation Weather Services (Panel)	WRP	Weather Ready Pacific

1 Introduction

This report summarises the project reports for the *Review of the Pacific Meteorological Council (PMC) and the Pacific Meteorological Desk Partnership (PMDP)*, commissioned by SPREP and WMO in 2024. The Review was conducted in three parts. Part (i) was a Desktop Review, Part (ii) considered Governance and Operations and Part (iii) considered PMC's alignment with WMO and other international structures.

Those consulted included Pacific NMHS representatives and the Review Task Force, the SPREP Secretariat, the WMO Sub-Regional Office, the Samoan Government, MetService, NIWA, GNS, and CAA New Zealand, the Pacific Forum Secretariat, the Pacific Community, Pacific Tourism Organisation, Japan International Cooperation Agency, UNDRR, UNESCO, the Pacific Disability Forum, Fiji Met Service, NOAA/NWS, DFAT, BOM, WMO Regional Office (Singapore), WMO Geneva, (various programs), PMC Members and the Secretariat, World Bank, Asian Development Bank, and the Presidents of WMO Services and Infrastructure Commissions.

These consultations occurred from May to October 2024, with strong input received. An interim presentation was given at the PMC-7 meeting in Vanuatu 2024, and further input received there prior to report finalisation in early December 2024.

2 Summary from the Desktop Review

Note: the summary below considers evidence from previously compiled reports and related material, separate from the consultations conducted for this review.

The Pacific Meteorological Council was formed in 2011, replacing the series of Regional Meteorological Services Directors meetings that had begun in 1993, and constituted as a body of SPREP. The formation of the PMC and the coincident establishment of the Pacific Meteorological Desk Partnership occurred in response to a growing appreciation of the need to increase meteorological coordination in the region. A review was commissioned in 2010, which considered weather and climate services in the Pacific and recommended a strengthening of regional arrangements. This review had also built upon a 2000 needs analysis for strengthening Pacific Island Meteorological Services.

Attendance at the Pacific Meteorological Council meetings grew steeply, from 54 in 2011 to 168 in 2015, suggesting a rapid appreciation of the usefulness of the Council in the region, within an increasing crowded climate and natural hazard environment. Attendance has continued to grow, with the 2023 meeting attracting 230 participants in 2023 (Figure 1).

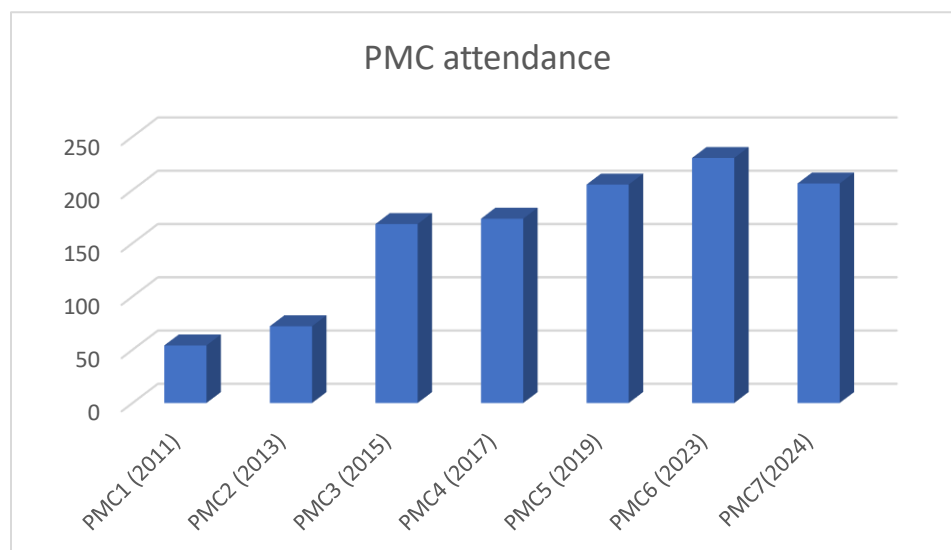


Figure 1 - Attendance at PMC meetings, 2011-2024. The decline in 2024 may be associated with PMC-7 not being associated with a Pacific Ministerial Meeting on Meteorology

Meeting minutes from the PMC demonstrate an increasingly packed agenda and sophisticated range of discussions, moving through the refinement of the strategic agenda (including the update to the Pacific Islands Meteorological Strategy in 2017) and towards Pacific-focused, ambitious problem-solving such as the development of the

Weather-Ready Pacific Programme during the early 2020s. A series of Ministerial Meetings on Meteorology was also initiated, with the first held in 2015 and the most recent in 2023. A Pacific Donor and Development Partners Meeting was also held in 2023, the first of its type. Multiple lines of evidence suggest that the PMC has, overall, been highly successful in realising its intent of greater regional coordination in support of hydrometeorological services and regional needs and also visibility for the importance of hydrometeorology.

However, based on the written evidence alone, there are also clearly issues that require close attention. Principally, these are:

- The Apia-based part of the Pacific Meteorological Desk Partnership is not, and has never been, sufficiently resourced. Discussion at the first PMC meeting in 2011 demonstrated a positive intent towards filling several support positions within SPREP, but at that stage, only one position was filled, on a non-ongoing basis. Despite the growth in PMC-related workload since then, an ambitious policy and project agenda, and an obvious policy impetus, only one full-time position is currently filled, with some of the excess workload being borne by project-funded staff. A 2018 report, prepared as part of the Donor and Partner Engagement Strategy consultation process, clearly articulated this situation and that it was affecting the work of the Pacific Meteorological Desk Partnership and the effectiveness of the PMC.
- Project and capacity development pressures on individual National Meteorological and Hydrological Agencies remain, and stem from a plethora of national, regional and global projects. The need for the PMC and Pacific Meteorological Desk Partnership to assist in coordination continues to increase. Given the global and regional policy impetus, particularly around climate change and disaster risk reduction, it is critically important that PMC seeks to be 'ahead of the curve' in assisting regional coordination in this area. This issue is also highlighted in the 2018 report.
- The PMDP capacity issues are also affecting the effectiveness of PMC Panels.
- The 2018 Review points to the importance of the PMDP remaining neutral and transparent in the context of simultaneously facilitating coordination and undertaking projects. Clearly, this desired neutrality is not possible in the current circumstance of project staff assisting the PMDP in workload management. This situation is unlikely to spontaneously resolve itself and needs to be addressed, including in the context of the Weather Ready Pacific project.
- The 2010 Review had identified the multi-disciplinary nature of some of the hazards faced in the Pacific, such as tsunamis and volcanic eruptions, and their links to weather and climate. The implementation of the Sendai Framework for Action, and the 2050 Strategy for the Blue Continent, also requires highly coordinated work in support of multi-hazard early warning systems. Many countries in the region are working towards this. However, the expertise for these areas is spread at the regional level between SPREP and the Pacific Community, and there appears to be no strategy in place for improving the coordination of related work for natural hazards, particularly for geohazards.

3 Summary from the PMC / PMDP Review Consultations

3.1 Insights from Workshop with NMHS Staff

Feedback was obtained from a workshop consisting mainly of senior Pacific National Meteorological and Hydrological Service (NMHS) staff members (Figure 2), and then through in-person and virtual discussions with a wide range of stakeholders in the Pacific and internationally.

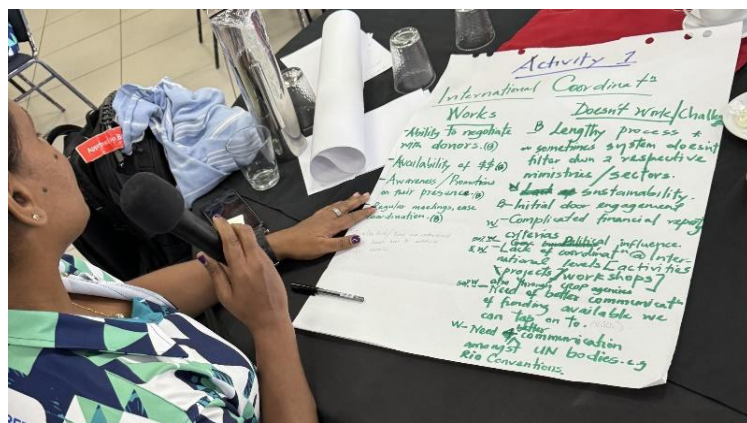


Figure 2 - A Table group report-back during the May 2024 workshop with NMHS staff in Vanuatu, considering questions of effectiveness of international coordination in the region

In the initial consultations with NMHS staff in May 2024, there was widespread agreement that many aspects of international coordination work well, and also about PMC's positive role in that process. However, participants overwhelmingly identified that they are working in a stressed coordination environment, and that many aspects of that environment are either not improving or are getting worse (Table 1).

The net effect of these neutral or negative trends is considerable, noting that these are occurring despite the unambiguous achievements of the PMC and PMDP in

improving regional coordination (see later discussion). Pacific NMHSs are operating in a stressed, crowded space, in which their attention is fractured, capacity-building projects are taking a great deal of their attention, and in some cases funds have to be returned to donors because of the difficulty in managing project projects. Many of these projects are those in which PMDP has relatively little opportunity to be engaged, as they may be driven by national agencies or through bilateral relationships with donors and without CROP agency involvement.

Improvements in PMC and PMDP effectiveness therefore directly aid the individual NMHSs in terms of their own ability to navigate the complex regional and international environment and to perform their roles in the national and Pacific interest.

Works well (getting better / worse)	Works poorly (getting better / worse)
- Regional coordination to connect donors, experts, NMHSs - PMC expert panels & structures - Priority driven activities (country upwards) – when donors align to our voice - External and internal active participation - Working in the Pacific Way - Sustained, maintained effort - When projects understand dynamics and agency responsibilities before coming to country - Donor & NGO Engagement - Ability to negotiate with donors - Availability of \$\$ - Awareness/promotion of donor presence - Regular meetings / coordination - Loyal regional experts – those who understand	- Not enough understanding between NGOs / NMHSs - Slow to disseminate products to stakeholders / get product timing right - National work plans not aligned to international coordination - International coordination - Politically driven projects - Relying on a single authority to disseminate advice/warnings - Time to get things done - Short-term projects / Sustainability - Too many donors in a crowded space - Donor \$\$\$ being returned to donor (complex processes) - Fragmented Implementation at Regional level - Diversity in hardware (incompatibility) - Lengthy processes, sometimes not filtering through agencies/sectors - Initial donor engagement - Communication of funding opportunities - Communication between UN bodies

Table 1 - Summary of table discussion exercises about the capacity development environment that NMHS staff find themselves working in, and relevant trends where identified. Table groups were asked to comment on the effectiveness of international coordination in terms of what is working well, and what is not working well, and then were asked to decide whether each element was getting better (green in the table), staying the same (black in the table), and getting worse (magenta in the table)

Following wider consultations as described above, feedback was summarised in two ways. The feedback is presented firstly as a simple Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis, and then analysed and discussed with reference to the six OECD Evaluation criteria (Relevance, Coherence, Effectiveness, Efficiency, Impact, Sustainability), with recommendations given against each criterion.

3.2 Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis

Strengths (internal focus)	Weaknesses (internal focus)
PMDP - Improves collaboration between WMO and SPREP and between technical partners - Able to assist PICs, including less-resourced members - Strong internal culture - Ability to use project resources flexibility - Strong internal work culture with a high retention rate - High diversity of workforce, including percentage of women (71%, against Pacific average of 51%) PMC - Pacific-led, bottom-up focus compared to UN environment - Creation and maintenance of Pacific Islands Meteorological Strategy (PIMS) - Perception that PMC has worked smoothly without causing issues for SPREP - Strong advocacy for Pacific needs and generation of new initiatives (Weather Ready Pacific) - Point of focus for interested parties. Coordination and networking is important – may be only opportunity to meet everybody - Progress on priority issues through Panels. Panel members are very capable (although need more support). Many examples given of positive impacts of PMC and Panels, and also of WMO relationships - Positive impacts of Ministerial Meetings on Meteorology, including in high level understandings of role of meteorology - PMC rules can be changed easily consistent with SPREP procedures and governance - Perception that usefulness of PMC has increased over time (despite stresses) - View of some partners that a high-functioning PMC is more important than global arrangements - PMC is a way of getting things done in the face of international disfunction	PMDP - Only one position filled ongoing for extended period, creating high stress and single point of failure. Workloads high for all involved staff. - Insufficient overall technical skill in Secretariat in a very technical field - Insufficient capacity for ‘regional perspective management, implementation, technical backstopping, and resource mobilization’ - Very limited human and financial resources for sector consultations - Project resources used on informal ‘quid pro quo’ basis, making project accountability difficult - Arrangements between WMO and SPREP loosely defined and not always regarded as equal. - Extensive travel is very disruptive for staff - Perception that in-house work is not always strategic and often includes reassignment of staff to other priorities PMC - Limited Secretariat support for PMC Panels, resulting in reduced effectiveness. Often Panel activity only occurs around PMC. Actions not sufficiently tracked between meetings. - Large size, technical, inaccessible language and ‘performative’ aspect of PMC meetings criticised for lack of inclusion and ability for key external organisations and sectors to speak unless invited - Criticism of ‘old style’ meeting format: “attending was like going to a meeting 20 years ago.” - Breadth of PMC vision makes representative meetings (eg having all agencies/disciplines represented) more difficult - Not enough effort on strategy - Perception that meteorology is treated as more important than hydrology. No coverage of geohazards. - Potential governance challenges if strategic outcomes and project-related processes are blurred. Risk that major projects (eg Weather Ready Pacific) dominate the agenda - Some structural tension between international mandates (eg WMO) and regional mandate (eg SPREP) for primacy of decision-making and problem solving. Some perceive WMO as too close to PMC – need for clear independence of action - Need to allow space for individual countries to do their thing - Unclear where CROP and other regional organisations fit in - Donors don’t always feel recognised (several specific examples given)

	Communications are very poor between meetings. Meeting announcements, arrangements, agendas are always too late
Opportunities (external focus) - Increasing opportunities for useful investment in region due to climate and geopolitics factors. - Launch of significant initiatives such as Weather Ready Pacific, SOFF, Early Warnings For All. - Improved Pacific strategic narrative articulation through Vision 2050, with a clear need to articulate practical actions to achieve vision in meteorological area - International desire for stronger Pacific engagement (eg at WMO) and for clear 'Voice of the Pacific' - Desire for better coordination of multi-hazard early warning systems (MHEWS), including for geohazards, and for 'last mile' focus - MHEWS approaches will demand better risk quantification, impact-based focus – good opportunity to engage with DRR community more strongly - Opportunities to do better, targeted sector-specific efforts consistent with regional strategies (eg aviation, marine, tourism, fisheries). The Pacific economy would greatly benefit from better and more consistent services. - Strong coordination between CROP agencies (eg SPC and SPREP) will magnify impact and overall funding - Climate impacts on geohazard risks not currently well articulated – improvement in this area could help align funding for climate and early warning system projects, particularly as funders such as GCF insist on clear climate rationale - Potential for new sources of funding. Good coordination and inclusion attracts donors - WMO reorganisation gives potential to consider Panel realignments - Many development projects face climate-related hazards and risks. Can PMC encourage more general spending on monitoring and warning networks? Can PMC take advantage of new initiatives such as the Pacific Resilience Facility? - Potential to use new tools (such as Country Hydromet Diagnostics) to form clear view of where needs are in region and take stronger leadership on equity issues	Threats (external focus) - Unequal funding streams. Some projects allow sustainable administrative overheads for project management services (~15%), some allow minimal overheads (~7%), resulting in a net negative for SPREP. Limited number of funders. - Donor landscape can be chaotic. So can UN international coordination environment - Value proposition for not currently well-defined - Projects/programmes undertaken in region without SPREP involvement (SPREP has little resourcing available to engage). SPREP needs to accept this and work with it. - Trend towards bilateral activities and country-specific programmes, rather than regional public good projects. An overemphasis on regional projects will result in lost opportunities to push good strategy at the country level. On the other hand, there are weaknesses in donor investment into regional projects and their needs to be addressed. - Expectations from external stakeholders may risk reputational damage if not fulfilled - Perception of competitive behaviours between CROP agencies, donors, technical partners. Some cooperation is regarded as a façade to cover up deeper tensions. Cooperation needs to be deep and properly formalised - Perception of lack of substance in Pacific strategies (eg Framework for Resilient Development in the Pacific) - Unclear governance around multi-hazard early warning systems - Insufficient expertise in Pacific to progress high priority areas (eg geohazards) even if governance sorted out, meaning that new projects/initiatives may fail. Continuing need to engage with experts outside region. - Grouping hydrology and geohazards under SPREP would risk creating disconnections with water and land management functions respectively. - Pacific 2050 Strategy is important but there is insufficient substance to it.

Table 2 - A simple Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis of PMDP and PMC based on stakeholder comments. Stakeholders were warm in articulating the importance of PMC and the achievements made, but had many issues of concern and constructive suggestions.

3.3 Assessment against OECD Criteria

The information from the Desktop Review, NMHS staff, other parties consulted and the consultant's own observations was synthesized using the revised OECD Evaluation Criteria for Development Evaluation, treating the PMC and supporting PMDP as an 'intervention' in the capability building and NMHS operational landscapes in the Pacific.

The PMC has demonstrated strong **relevance** since its establishment in 2011, with robust testimony of positive impacts in collaboration and coordination, the development of Pacific-led strategies and projects for growing and applying meteorology for societal good, high and increasing attendance at meetings. The implementation of the Pacific Islands Meteorological Strategy strongly supports the aspirations of the Pacific, such as those outlined in the Pacific's *2050 Strategy for the Blue Pacific Continent*. The Review recommends the clear articulation of the need for strong hydrometeorological services supporting economic prosperity and community resilience for each relevant part of the 2050 Strategy, including for peace and security, fisheries, tourism, safe marine and aviation transport, as well as the obvious links to community safety and climate resilience. The Review also recommends that PMC takes unambiguous leadership in developing the operation of integrated multi-hazard early warning systems (MHEWS) in the Pacific, including for geohazards such as tsunamis, earthquakes, landslides and volcanic eruptions as well as for hydrometeorological hazards. Expertise in multi-disciplinary hazards is split between CROP agencies and often between individual agencies in-country, but users deserve and expect a seamless service across the Blue Pacific and the PMC is best placed to foster a collaborative approach to meeting user needs.

In terms of **coherence**, PMC is well aligned institutionally for SPREP and it is pleasing to note that the SPREP Director-General has made a firm commitment towards setting up PMC Secretariat functions and projects under a separate Programme, enhancing PMC as a community of practice. The broader capacity development of hydrometeorology and related fields across the Pacific could still be described as partially *incoherent* due to the large amount of activity across national, bilateral, multilateral and international contexts, and despite the best and partially successful efforts of PMC, WMO and others to improve coordination. This situation is very frustrating for Pacific NMHS staff but is also an opportunity to maximise resourcing and effort through improved coordination through efforts such as the Pacific Partners Coordination Mechanism (PPCM). There are also opportunities for PMC to advocate for closely integrated actions in support of climate and disaster management, consistent with the Pacific 2050 Vision and the Framework for Resilient Development in the Pacific (FRDP). This could include the links between climate change and multi-disciplinary hazards (such as sea-level rise and tsunami penetration, rainfall intensity and landslides or volcanic mudslides), in order to more closely align climate-related financing with MHEWS.

Despite progress on many fronts, stakeholders universally judge PMC's **effectiveness** as being significantly compromised by a lack of Secretariat staffing in the PMDP, with effectively only one position dedicated to meteorological support. Very high levels of concern were expressed in this regard, and many examples given of how this reduces the effectiveness of PMC and its Expert Panels. Some of the underlying issues are not unique to the PMDP, and in that regard it is recommended that PMC pay close attention to the recommendations of the 2024 SPREP Finance & Resource Sustainability Strategy, and strongly support its implementation in PMDP contexts. In addition, it is urgent to recruit at least minimal staffing for the core of the new Meteorology Programme while the total staffing and model of operation is determined. The potential for additional support for the PMDP should also be urgently explored with partners and donors. Further to this, sector-specific initiatives in support of Pacific 2050 should be developed, to accelerate support for priorities such as peace and security, fisheries, agriculture and tourism, safe aviation and maritime navigation in addition to early warnings and climate resilience.

To further reinforce PMC effectiveness as a regional body, it would be extremely useful to establish a strong monitoring and evaluation function, leveraging from the development of global tools such as the Country Hydromet Diagnostic, so that PMC can closely track the development of NMHS services and the effectiveness of capacity building projects across the region. PMC should also undertake cost-benefit analyses to provide robust evidence of the value of ongoing and project-based investments in meteorological services, with recommendations given against each criterion. Below is a brief summary of the analysis and recommendations.

In order to improve the **efficiency** of PMC, it is recommended to introduce a PMC Executive Board or Management Group, modelled on the SPREP Executive Board. The group would meet on alternate years to

the full PMC, with a more limited agenda, and be primarily responsible for agile and efficient decisions on priority issues and for monitoring progress in implementing PMC decisions. Other governance recommendations include clarifying the rules around the holding of special meetings for the full PMC, to enable shorter notice virtual meetings and a reduced quorum for special meetings. Various stakeholders, particularly meeting observers, have also expressed frustration at the format and degree of engagement of PMC meetings, and consideration of more explicit inclusion and consultation strategies is proposed.

PMC's **impact** can be significantly enhanced through the proactive use of 'soft power' strategies, particularly in engaging with national, bilateral, multilateral and international activities that have not strongly included PMC or NMHSs in their design. The existence of a busy and (to some extent) chaotic Pacific capacity building and geopolitical environment is inevitable. With strong and well-resourced strategic engagement in the context of the Pacific 2050 Vision, PMC can strongly influence more coherent capacity building and relieve some of the high levels of stress that NMHS staff are experiencing. PMC can also take leadership in setting clear expectations for the standard of hydrometeorological services that Pacific peoples should receive, and how service improvements can be targeted to promote equity of outcomes. PMC can continue to work to ensure that relevant matters are understood at Ministerial levels and by key donors and partners. Strong international engagement, including with WMO and other UN Treaty agencies, is critically important and should include the resourcing and support of Secretariat and NMHS staff to participate in global and regional processes as part of their roles and in a structured, prioritised process.

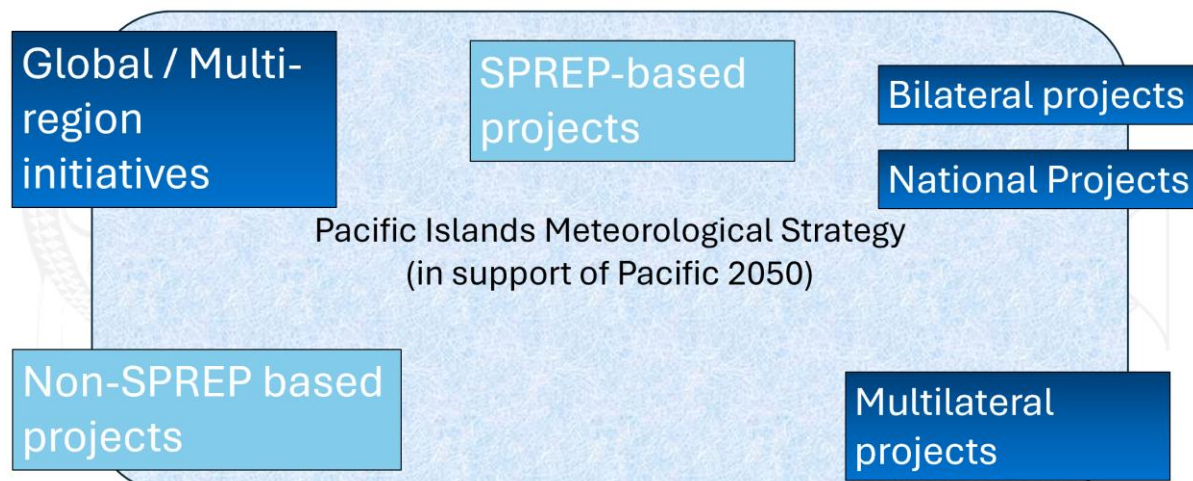


Figure 3 Conceptual model of PMC and PMDP 'soft power' influence on development of hydrometeorological services in support of Pacific 2050. The concept centres on PMC growing its influence through coordination and partnerships in support of the Pacific 2050 Vision, through ensuring that as much activity as possible is in line with the Pacific Islands Meteorological Strategy, including projects that are not based at SPREP. While requiring additional Secretariat staff, this approach seeks to maximise the width of the 'pipe' of investment in the region, and the effectiveness of that investment.

The **sustainability** of hydrometeorological development in the Pacific is heavily dependent on the effective implementation of global initiatives in an appropriate manner, rather than having the Pacific develop solutions from scratch. PMC can work with WMO and other agencies to encourage an excellent implementation of relevant global initiatives, including resource-intensive operational activities such as numerical weather prediction, where high resolution modelling could potentially be provided by metropolitan and other partners to suit Pacific needs. Where a global initiative is 'nearly but not quite' right for the Pacific, PMC can advocate strongly to make it appropriate and to have good implementation supported.

The participation of NMHS and Secretariat staff in international processes can be supported through careful design. Activities should be prioritised and staff supported to avoid burn-out through excessive travel or pressure to attend videoconferences at unreasonable times. PMC Panel activities should be designed to avoid straight duplication of WMO and other expert processes, and rather add value where

needed for the Pacific. Engagement should be designed to bring a net flow of appropriate assistance and expertise to the region. to ensure that Pacific voices are heard.

Finally, PMC can publicly ‘call-out’ good and poor processes in capacity development and reduce the impact of poorly implemented projects in the Pacific.

The principal recommendations made in the Review with respect to the operation of the PMDP and PMC are given in Table 3, as well as shown against the analysis against the relevant criteria in Appendix C. Appendix A shows suggested updates to the PMC Terms of Reference, and Appendix B proposed Terms of Reference for the PMC Executive Board.

No.	Recommendation	Priority	OECD Criteria
1	Adjust PMC Terms of Reference to clearly link them to the achievement of the Pacific 2050 Vision.	H	1. Relevance
2	Ensure that the PMC Work Programme is also clearly linked to the Pacific 2050 Vision, with explanatory communication materials prepared as necessary (note that PMC activities will necessarily extend beyond specific points mentioned in Pacific 2050).	H	1. Relevance
3	Ensure that the Pacific Islands Meteorological Strategy update is likewise framed largely in Pacific 2050 terms, particularly in terms of maximising regional public goods in support of the 2050 Vision’s goals and Regional Collective Actions.	H	1. Relevance
4	Continue Pacific Ministerial Meeting on Meteorology (PMMM), noting that meteorology is a cross-cutting activity and high visibility / accountability across multiple portfolios is desirable.	H	1. Relevance
5	Adjust PMC Terms of Reference to include references to National Meteorological and Hydrological Services and hydrological outcomes, consistent with the PIMS.	M	1. Relevance
6	Explicitly include reference to and responsibility for promoting integrated MHEWS (including geohazards) in the Terms of Reference, work programme, and Panel structures, in coordination with SPC.	H	1. Relevance
7	Strongly support SPREP’s initiative to create a new Programme within the Secretariat Structure with a range of skill sets to support coordination and advocacy of the range of PMC activities.	H	2. Coherence
8	Ensure that regional and international partnerships are actively maintained as required by Pacific Leaders, building on the Pacific Partnership Coordination Mechanism and using more of a continuous engagement approach than large PMC meetings. A particular focus area should be SPREP/SPC practical arrangements in support of the Climate Change and Disasters thematic area of Pacific 2050, and the Framework for Resilient Development in the Pacific. These arrangements include the specific responsibilities and funding of staff involved.	H	2. Coherence
9	Strongly articulate the importance of an integrated climate change and disasters narrative by communicating the physical links between hazards and their impacts, alongside advocacy for integrated organisational and technical approaches. Incorporate this understanding in the PIMS and communicate this to Pacific stakeholders and donors.	H	2. Coherence
10	Monitor SPREP’s progress in implementing the recommendations of the 2024 SPREP Finance & Resource Sustainability Strategy, and provide input as necessary	H	3. Effectiveness
11	Urgently recruit additional staff to establish a sustainable core PMC Secretariat as part of PMDP	H	3. Effectiveness
12	Explore with partners and donors the potential for specific Secretariat support to run Panels and activities in support of Pacific 2050, noting that over-use of project-funded staff can be problematic. Explore a wider funding base, including contributions from new national, private and philanthropic partners.	H	3. Effectiveness

	Use any additional support to strengthen activities and reporting on progress on Pacific 2050 goals and to more strongly engage international community.		
13	Develop proposals for additional sector initiatives to help the achieve Pacific 2050 Vision. Examples will take advantage of existing PMC Panel and existing project and Programme efforts and may include: - Using sector-specific angles to strengthen the case for additional ongoing operational support from metropolitan members and other international partners. For example, many sectors would benefit from ongoing provision of high-resolution (convection allowing) numerical weather prediction to PICTS, under the framework of the WMO Integrated Processing and Prediction System (WIPPS) - The development of an integrated suite of services to support Peace and Security - Improved fisheries, agriculture and tourism services in support of economic development - Targeted programs for safe aviation and maritime navigation, including progress on aviation cost recovery where possible (including for volcanic observatories). - Improved ICT infrastructure, security and stability for Pacific NMHS in line with the Technology thematic area, ensuring that each NMHS reaches an acceptable level of ICT resilience	M	3. Effectiveness
14	Establish processes for monitoring progress against objective standards of NMHS capabilities, preferably using internationally recognised peer-assessment methodologies such as the Country Hydromet Diagnostics.	H	3. Effectiveness
15	Undertake regular cost-benefit analysis studies, demonstrating the value of investment in NMHS capabilities	M	3. Effectiveness
16	Provide input to international methodologies from a Pacific perspective, particularly in terms of the assessment of user-centred services in appropriate contexts.	M	3. Effectiveness
17	Establish a PMC Executive Board for efficiency of process (noting that PMC has scope to refine its working arrangements under SPREP rules), including for making key decisions, driving progress including in non-PMC meeting years, and representing PMC in high level discussions	H	4. Efficiency
18	Update the Rules of Procedure to allow a one-half Quorum at Special Meetings, noting that Special Meetings will be held with a strictly restricted Agenda.	M	4. Efficiency
19	Set a minimum notification period for Special Meetings (two weeks is suggested, for a virtual meeting without physical travel), noting that the current Rules give a maximum period (six weeks or as agreed), but no minimum.	M	4. Efficiency
20	Noting the large attendance at in-person meetings and various frustrations expressed, consider a revised management approach for in-person meetings that explicitly includes inclusive and creative engagement with PMC observers	H	4. Efficiency
21	Ensure that PMC creates and maintains an Engagement Strategy that specifically considers how to promote and monitor the use of the PIMS in the wider Pacific context, outside the funded projects that SPREP is formally part of.	H	5. Impact
22	As part of the Engagement Strategy, allocate resources (staffing and travel funds) within the PMDP for staff to engage in priority meetings, committees, and representations at the regional (particularly WMO RA V) and international level (particularly WMO Services and Infrastructure Commissions and related processes, UNESCO and UNDRR groups and other international organisations)	M	5. Impact
23	As part of the Engagement Strategy, ensure that other CROP agencies are fully aware of PIMS priorities, including relevant meteorological aspects of the Pacific 2050 Vision	M	5. Impact

24	Ensure that PMDP communications resources are allocated for regular and relevant engagement at multiple levels, for the promotion of the PIMS and specific initiatives as appropriate	M	5. Impact
25	Ensure that regular consultations are held with specific sectors and with particular donors of interest	M	5. Impact
26	Develop a clear statement of what levels of hydrometeorological service should be aspired to across the region, in consultation with users and the Pacific Islands Forum Secretariat, and noting the need to service vulnerable users including Smaller Island States.	H	5. Impact
27	Review overall progress against these standards, using quantitative data where possible, at each PMC meeting, and with open discussion with donors and agencies about what has and hasn't worked and what course corrections may be required	M	5. Impact
28	Ensure that overall levels of progress and issues are reported to the Ministerial level for consideration in individual countries, noting that some NMHSs may need additional assistance due to local challenges	M	5. Impact
29	Ensure a strategic and operational intent to have excellent implementation of relevant global initiatives, including resource-intensive operational activities such as numerical weather prediction, where such initiatives can take the load of 'home-grown' efforts. Where a global initiative is 'nearly but not quite' right for the Pacific, advocate strongly to make it appropriate and to have good implementation supported.	M	6. Sustainability
30	Monitor the success and failures of international initiatives from the Pacific perspective, particularly noting what aspects are sustainable for use by Pacific NMHSs, and what is inappropriate	M	6. Sustainability
31	Further to the resourcing of international liaison in the engagement strategy, avoid 'straight' duplication of Panel activities with international expert teams (eg WMO teams). Instead, scope Panel composition and function with intent to make local progress on key focus areas consistent with Pacific 2050 and PIMS, provide PMDP and NMHS representation into international processes (eg to WMO, ICAO, IMO, UNESCO, UNDRR) and bring international benefits into region in order to support Pacific 2050.	H	6. Sustainability
32	Prioritise such representation as a body, using NMHS and other representatives (including SPREP Secretariat staff) as agreed to ensure that individual and total workload are useful and constructive.	H	6. Sustainability
33	Regularly review such representation to account for shifting international landscapes and achievements made, as well as develop a diverse range of staff members. Advocate internationally for good practices in utilising Pacific representation, including for virtual and in-person meetings	M	6. Sustainability
34	Support all relevant staff, including NMHS staff, in developing international liaison skills and the capacity to advocate directly for the Pacific, including for outcomes consistent with the PIMS and the Pacific 2050 Vision	M	6. Sustainability
35	Ensure that Secretariat staff receive time allocations to engage directly with international processes within their area of expertise. Reinforce the importance of NMHS participation in international discussions with Member States at the Ministerial level, and contribute to debates about the priority of various participative opportunities as required.	M	6. Sustainability
36	Develop a strategy and protocol for public (or private) PMC comment on unsustainable practices in projects. Ensure that such comment is developed in a neutral manner and can be applied either to SPREP-involved or other projects, to avoid actual or perceived conflicts of interest.	M	6. Sustainability
37	Balance such comment by continuing to celebrate project achievements, including for those that have no direct involvement from SPREP or other CROP agencies. Ensure that the positives of 'good' donor practices are fairly acknowledged.	M	6. Sustainability

Table 3 Consolidated Recommendations for review of PMDP and PMC. Additional recommendations are made below relating to PMC and international relationships including with WMO. 'H' indicates high priority, 'M' indicates medium priority.

3.4 Consideration of PMC's alignment with WMO and other international structure

WMO exists within the complex United Nations (UN) system, under which multiple agencies undertake roles relevant to PMC and the Pacific in general. These agencies include, amongst others, the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations Office for Disaster Risk Reduction (UNDRR), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), The World Bank Group, the United Nations Development Programme (UNDP) and the United Nations Framework Convention on Climate Change (UNFCCC). The UN Development System (UNDS), which includes many agencies, has historically had difficulty with internal coordination, although many efforts have been made by the UN in that regard. PMC and WMO work in partnership in the region to navigate a complex environment and prioritisation of coordination in support of the Pacific Meteorological Strategy and, more broadly, the UN Sustainable Development Goals and the Pacific 2050 Vision. The efforts of PMC and WMO are foundational to achieving Pacific aspirations.

Participation data from the global WMO Structures, including in the Services and Infrastructure Commissions, strongly indicates that PMC non-metropolitan Members are collectively struggling to provide representatives to give high-level insights and Pacific expertise into global processes, meaning that policies and initiatives developed through the Commissions for consideration at the WMO Executive Council and World Meteorological Congress may not adequately reflect Pacific needs or Pacific wisdom. This is a fundamental issue that also affects the ability of PMC to influence global policies from the WMO Region V (South-West Pacific) perspective. It is recommended that this be the subject of a high-level discussion between WMO and PMC, together with examination of any options for strengthening the WMO Representative Office for the South-West Pacific, particularly noting the overall intent of improved UN coordination in the Pacific and the impact of the 'barriers to participation' challenges in the Pacific, including unfavourable time zones (particularly when compared to Europe, Africa, and the Americas in relation to virtual meetings with Geneva), large distances, communications challenges and thinly-spread staff. It is also recommended that the 'metropolitan' members of PMC (France, Australia, United Kingdom (UK), United States of America (USA), New Zealand) be asked to particularly ensure that all of their expert participants in WMO processes are kept well informed of Pacific priorities and are able to advocate for these priorities as appropriate.

At the WMO regional level, many Pacific representatives have been appointed to the restructured bodies of WMO Regional Association (RA) V, with approximately 54% of team positions filled by staff from non-metropolitan PMC Members, and the rest made up of representatives from the metropolitan PMC Members (19%) and the Southeast Asian RA V Members (28%). However, more detailed analysis shows that many of the Pacific representatives are spread thinly across multiple teams, with some staff appearing on four, five or even six teams. As a result, it is unlikely that Pacific Island representatives will be able to give relatively large amounts of their time to RA V processes.

In this context, it is extremely important to harmonise PMC and WMO RA V structures to avoid double-handling, in addition to other potential strategies such as resourcing and appointing Council of Regional Organisations of the Pacific (CROP) agency staff (e.g. from the Secretariat of the Pacific Regional Environment Programme (SPREP) and the Pacific Community (SPC)) as contributors or observers on RA V bodies (or WMO Commissions, Research Board, etc.) as appropriate.

Thematic Area of Pacific 2050	Weather, Climate, Water Dependence
Peace & Security Strengthened security arrangements and architecture (System Outcomes 1.1 & 1.2)	Coherent weather, climate and ocean services are essential for security planning and operations, including planning for climate resilience and land, marine and airborne operational activities. Every significant security force in the world maintains strong meteorological intelligence capabilities, either using in-house resources or through agreement with NMHSs.
Resource and Economic Development Development of regional fisheries (Regional Collective Actions 1,10)	Sustainable fisheries are highly dependent on strong climate advice for planning, as well as accurate and consistent medium and short-term forecasts and warnings across a wide region, and for the atmosphere and oceans.
Services for Tourism (System Outcome 1.5, Regional Collective Action 5)	The tourism industry is highly dependent to climate and weather (as are many other sectors not explicitly mentioned in Pacific 2050) and needs consistent and high-quality services to enable operators and customers to plan and make the best possible decisions, often in situations of pronounced uncertainty. Currently, operators get inconsistent services and are often looking at 3 rd party services to try and get information.
Climate Change and Disasters Goal 1, People Outcome 1.0, System Outcomes 1.1, 1.2, 1.3, Regional Collective Actions 3,4,5,6,8,9,10,13,17,18 Goal 2, People Outcome 2.0, System Outcomes 2.1, 2.2, Regional Collective Actions 1,3,4,6,8	Virtually every aspect of climate change and disaster-related action requires strong support from the hydrometeorological community, and additional support from the less-organised geoscience community in order to give consistent multi-hazard early warning services. Excellent climate advice and seamless early warning systems are absolutely fundamental to climate and disaster resilience.
Ocean and Environment Goal 1, System Outcomes 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, Regional Collective Actions 4,6,9,10,13	Environmental management, including for oceans and for sustainable economic activities, requires accurate climate and weather advice and warnings for planning, daily management, and also environmental emergency response.
Technology and Connectivity Goal 1, System Outcomes 1.1,1.2,1.3, Regional Collective Actions 1,2,3 Goal 2, System Outcomes 2.1,2.2, 2.3,2.4, Regional Collective Actions 2,3	Meteorological input is a mandated requirement for safe and efficient aviation and marine services, and is very important for safe road transport. Transport investment projects in the region frequently neglect the importance of hydrometeorological and early warnings investment, and there is significant scope to systematically improve this situation. Meteorological services are also critical users of improved ICT capabilities for delivering user-centred weather, climate and water services to Pacific peoples. There is also significant potential for using enhanced and secure ICT for regional collective actions such as shared high-resolution numerical weather prediction within improved service delivery environments, in collaboration with partners.

Table 4 – Example themes, goals and actions in 2050 Pacific Vision that have a strong relationship with hydrometeorological services. Numbers refer to the relevant sections of the 2050 Implementation Plan.

Consideration of the current PMC Panels and RA V structures shows imperfect harmonisation between these structures and the Pacific Islands Meteorological Strategy (PIMS) and related priorities, and also with the Pacific 2050 Vision. As a first priority it is essential that PMC Panels fully support the PIMS, and it is proposed that a principle be adopted that the Panel structures and the PIMS should be kept in alignment, with the Panels reorganised as appropriate when the update to the PIMS is adopted within the next several years. An interim Panel restructure is proposed that would give more explicit Panel accountability for supporting the current PIMS Key Result Areas and also the relevant aspects of the Pacific 2050 Vision,

including Peace & Security, Resource & Economic Development, and Multi-hazard Early Warning Systems (including geohazards, not covered by WMO). In this revised structure, a total of five Panels would be retained, but with standing committees responsible for each PMC Key Result Area as well as specific 2050 Vision areas.

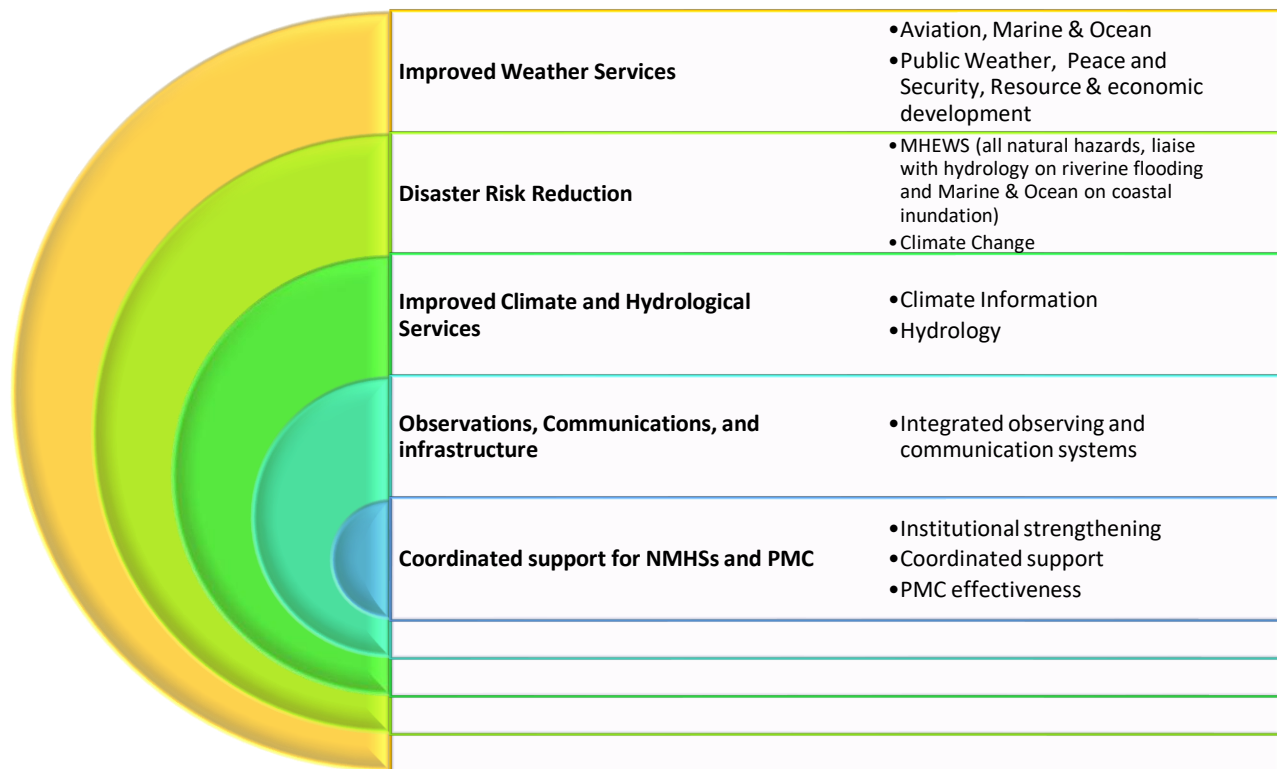


Figure 4 Suggested new PMC Panel structure to align with Pacific Vision 2050 considerations, based on the current PIMS. In this example, the Public Weather Panel is explicitly asked to consider Peace and Security as well as Resource & Economic Development, and the Disaster Risk Reduction panel is explicitly asked to consider all Natural Hazards under an MHEWS, and form relationships and structures accordingly. This enables an explicit ‘landing point’ for each key Pacific 2050 Goal where weather, climate and related issues are likely to come up as issues requiring discussion and investment

Within that revised Panel structure, it is recommended that those Pacific representatives who are on relevant RA V bodies be asked to take a ‘joint activity’ approach of pursuing Pacific outcomes through WMO RA V processes wherever possible, to avoid double-handling. PMC Panel activities in those areas would mostly consist of the related WMO activity plus whatever additional activities were needed in the Pacific context. PMC Panels would be asked to focus their attention on areas that are not being prioritised by WMO RA V.

As is currently the case, PMC Panels would be encouraged to have strong participation from other relevant agencies (such as SPC) and engagement with other international and regional bodies. For areas that are strong priorities for PMC but are not strongly represented at WMO RA V level, PMC is particularly encouraged to seek to contribute at the global level where possible.

If an interim update of the Panel structures is agreed, then a detailed draft could be prepared for discussion and agreement. Alternatively, the update to the structures could be deferred until after the adoption of the next PIMS, to avoid a ‘double change’ of structures. In that case, a new draft Panel structure could be prepared as soon as the strategic priorities of the new PIMS are agreed.

PMC Panels & Standing Committees	Mapping to WMO and other bodies
Improved Weather Services	
Aviation (PKO 1)	RA V ET on Services for Aviation (ET-AVI) ICAO Asia-Pacific committees as appropriate
Marine & Ocean (PKO 2)	RA V ET on Marine Meteorological and Oceanographic Services (ET-MMO) Other WMO and IMO committees as appropriate
Public Weather (PKO 3)	RA V Working Group on Services RA V WG-I Expert Team on WMO Integrated Processing and Prediction System (ET-WIPPS) (<i>suggest that WIPPS is treated here as a key services enabler</i>)
Peace and Security (Pacific 2050 Peace & Security Goal 1)	RA V Working Group on Services (no RA V ET equivalent)
Resource & Economic Development (Pacific 2050 Resource & Economic Development Goal 1)	RA V WG-S Expert Team on Climate Services (ET-CLI)
Disaster Risk Reduction	
MHEWS (all natural hazards, liaise with hydrology on riverine flooding and Marine & Ocean on coastal inundation) (PKO 4 plus Pacific 2050 Climate Change and Disasters Goal 1 (MHEWS element))	RA V WG-S Expert Team on Multi-Hazard Early Warning Systems (ET-MHEWS) RA V Tropical Cyclone Committee for S Pacific and SE Indian Ocean Participate in mechanisms for other bodies as appropriate: • UNDRR (DRR) • UNESCO IOC (tsunamis) • IAVCEI (volcanoes) • Oceania Regional Seismic Network (ORSNET) (earthquakes)
Climate Change (PKO 5 plus Pacific 2050 Climate Change and Disasters Goal 1 (Climate Change element))	RA V WG-S Expert Team on Climate Services (ET-CLI) (where relevant) Support for UNFCCC and SPREP activities as appropriate
Improved Climate and Hydrological Services	
Climate Information (PKO 6)	RA V WG-S Expert Team on Climate Services (ET-CLI) Support for UNFCCC and SPREP activities as appropriate
Hydrology (PKO 7)	RA V WG-HWR Expert Team on Hydrology Applications and Services (ET-HAS)
Observations, Communications, and infrastructure	
Integrated observing and communication systems (PKO 8)	RA V WG-HWR Expert Team on Operations and Infrastructure (ET-OI) RA V WG-I Expert Team on Regional WIGOS Implementation (ET-WIGOS) RA V WG-I Expert Team on Satellite Utilization (ET-SAT) RA V WG-I Expert Team on the WMO Information System (ET-WIS) RA V WG-I Expert Team on WMO-IATA Collaborative AMDAR Programme (ET-WICAP)
Coordinated support for NMHSs and PMC	
Institutional strengthening (PKO 9)	RA V Management Group Advice from WMO Capacity Development Panel (in terms of WMO-related matters & UN Resident Coordinators (in terms of areas not covered by WMO, such as geohazards) University of South Pacific & University of Hawaii
Coordinated support (PKO 10)	RA V Management Group Advice from WMO Capacity Development Panel & UN Regional Coordinators
PMC effectiveness (PKO 11)	RA V Management Group Advice from UN Regional Coordinators

Table 5 - Recommended Panel alignments to WMO and other bodies, with relevant Pacific Key Outcomes (PKOs) and Pacific 2050 Goals also noted. Suggested Standing Committees are also listed. In principle, these should consist of the Pacific representatives to the equivalent RA V Expert Teams, with additional representation or arrangements as appropriate, particularly where RA V priorities are not in alignment with PMC. Panel names are shown in bold. Note: This Table does not explicitly consider existing Task Teams, such as those that currently exist under the Pacific Islands Marine and Ocean Services (PIMOS) Panel. It is assumed that Task Teams will be reconstituted in alignment with the new Panels.

3.5 Supplementary recommendations relating to International Partnerships and PMC Panels.

The recommendations below are intended as *supplementary* recommendations to those in Table 3, and assume that the thrust of those earlier recommendations has been accepted, including the establishment of a better resourced Secretariat under a separate Programme (see Section 3). Without additional Secretariat resources, it is more difficult to see a clearly effective pathway in coordinated action.

Supplementary recommendations relating to International relationships and Panels	
No.	Recommendation
S1	Seek formal high-level discussions between PMC leadership and WMO about: a) ways to increase and support Pacific representation on the WMO Technical Commissions, noting that various barriers to participation have resulted in a situation where there is very little involvement by non-metropolitan PMC Member staff on those Commissions b) any additional coordination support that can be provided from the WMO Representative Office for the South-West Pacific, consistent with WMO's support for the UN Pacific Sustainable Development Cooperation Framework as well as relevant global initiatives.
S2	Request that metropolitan PMC Members make special efforts to ensure that their participants on WMO Commissions and other bodies are very well informed on Pacific matters and PMC strategic priorities, and are prepared to advocate for these as appropriate during their work.
S3	Agree in principle that PMC Panel structures should reflect the Pacific Island Meteorological Strategy Priorities, with 'form follows function' considerations implying that the Panel structures should be updated with each new iteration of the PIMS.
S4	Consider an interim update of the Panel Structures prior to the adoption of the new PIMS (expected by 2026/27), to ensure that the Panels reflect the current PIMS, the development of the Pacific 2050 Strategy, and also the need to support global priorities such as the EW4All initiative.
S5	Consider the example given in Figure 11 and Table 4 in this report, which suggests five panels and a total of thirteen Standing Committees to cover the current Pacific Key Outcomes and also relevant Pacific 2050 Goals (such as multi-hazard early warning systems, peace and security, and resource and economic development).
S6	Agree that, where staff from PMC Members are engaged in RA V Expert Teams that are substantially advancing the PIMS as well as WMO Regional priorities (see Table 4 of this report), that work should be reported within the Panel structure but not duplicated (for efficiency of effort)
S7	Agree that Panels should, in consultation with PMC Leadership, consider nominations to WMO Technical Commissions and other global or regional bodies that will help advance those aspects of the PIMS
S8	Agree that close coordination with the RA V Management Group and other bodies such as the WMO Capacity Development Panel and the UN Resident Coordinators is highly desirable to progress aspects of the PIMS, particularly where there are no clear RA V arrangements in place.

Table 6 - Supplementary recommendations relating to international relationships and Panels

4 Planning for an expanded PMC support programme

The recommendations made in this review rest on appropriate resourcing of the coordination required, preferably under a stand-alone programme within SPREP, but in close collaboration with WMO and other organizations as described above.

4.1 Programme Vision

The Review proposes an updated Vision statement for the PMC:

National Meteorological and Hydrological Services (NMHSs) of the PICTs are able to provide appropriate weather, climate, water and integrated multi-hazard early warning services to their nations and communities to safeguard life and property, and are contributing to national development programmes through sustained observing systems, telecommunications, and data processing and management systems serving end users.

The Vision statement for the Programme could be explicitly tied to this PMC Vision for consistency.

4.2 Programme Mission

The Programme's mission statement will be focused on *how* the Vision will be achieved. Two options are given below, but it is suggested that the final version be developed by Programme staff members once appointed, in collaboration with SPREP Senior Management.

4.2.1 Concise version:

Working with local, regional and international partners to achieve excellence in weather, climate, water and multi-hazard early warning system services in support of safety and economic prosperity in the Pacific.

4.2.2 Elaborated version:

Working to achieve excellence in weather, climate, water and multi-hazard early warning system services in support of safety and economic prosperity in the Pacific, through:

- *seamless coordination with partners within and outside the Pacific, including with donors, CROP agencies, and international partners such as the World Meteorological Organization,*
- *supporting the work of the Pacific Meteorological Council in implementing the Pacific Islands Meteorological Strategy in support of the Pacific 2050 Vision, and*
- *monitoring and evaluating the rate of progress in service improvements.*

4.3 Operational Structure options

The Review briefly outlines the costs and benefits of potential Secretariat structures for undertaking the proposed Mission. These are elaborated in more detail below.

4.3.1 The 'stable' option

The 'stable' option addresses critical risks by creating a small team with a flat structure, removing the single point of failure issue and greatly reducing the reliance on project-funded staff. It would resolve pressing concerns about Secretariat fragility and related risks to SPREP-hosted projects, but it would not by itself allow support for all of the Review recommendations.

Under this model, support for PMC priorities and Panel operation will be principally undertaken by a Meteorology and Climate Advisory and Climate Officer, allowing the Programme Director to focus on a much stronger degree of higher-level liaison and critical issues management than currently. It also introduces a single officer to perform monitoring and evaluation activities.

This model does not allow for a significant expansion of activities, such as the coordination of multi-hazard early warning systems capacity development in the region, but would allow a modest increase in liaison with other agencies and some support for PMC priorities and Panel activities.

This is considered the base option for investment.

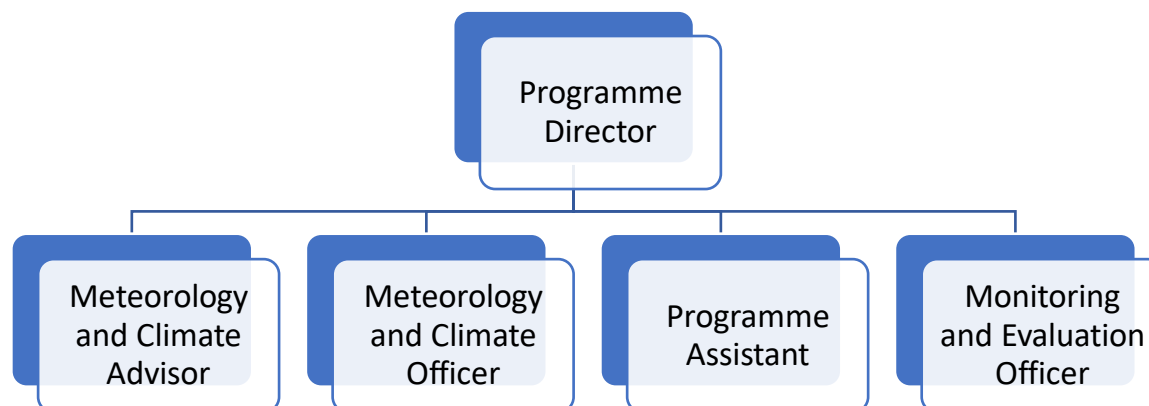


Figure 5 - Minimum viable Programme structure.

4.3.2 Options for supporting a wider scope of activity

Based on comments from stakeholders including NMHS staff, and noting the wider Pacific context of a ‘crowded’ partnership space but with many significant weather, climate and disaster-related challenges, it would be necessary to introduce resourcing above the base level to have a reasonable expectation of significant progress on the Pacific Islands Meteorological Strategy and on related issues such as the leadership of progressing multi-hazard early warning systems, taking advantage of the opportunities identified in the SWOT analysis while navigating an internationally complex environment. These options are presented on the assumption that additional funding can be obtained.

The ‘Progressive’ and ‘Accelerated’ options add additional support for programme development, support of implementation of recommendations, communications and regional and international engagement. Some Secretariat resource will be made available in these models for increased engagement with regional fora (including WMO RA-V activities) and international structures (including WMO’s Commissions and other relevant bodies), but the load of such engagement will be spread across officers to ensure a fair allocation of the associated travel and out-of-hours teleconferencing (European time zones being a particular issue for coordination with the Pacific).

4.3.3 Progressive model

The ‘Progressive’ Model assumes that some additional resourcing can be found from generalised sources of programmatic funding. It enables:

- The introduction of more proactive coordination around regional capacity development, including much stronger influence on activities that do not otherwise directly involve SPREP, in order to support regionally consistent results in support of Pacific 2050
- The introduction of a limited amount of coordination around multi-hazard early warning systems, as a new PMC support function. It should be stressed that the specialist expertise to support multi-hazard early warning systems is very thin in the Pacific due to the range of specialist skills required, covering meteorology, hydrology, oceanography, seismology, tsunami warnings, volcanology, and other disciplines. Coordination between CROP agencies (and particularly with SPC) is essential, although particularly noting a relative lack of expertise in geohazards within CROP agencies and also within individual PICTS, where geohazards have tended to receive even less attention than meteorological hazards. The function of the MHEWS Officer would be around coordination and building new

partnerships in these areas, as part of a long journey of capacity building towards effective regional and national systems.

- Significantly improved communications with sponsors and stakeholders, building the centrality of the Programme in supporting the Pacific 2050 Vision

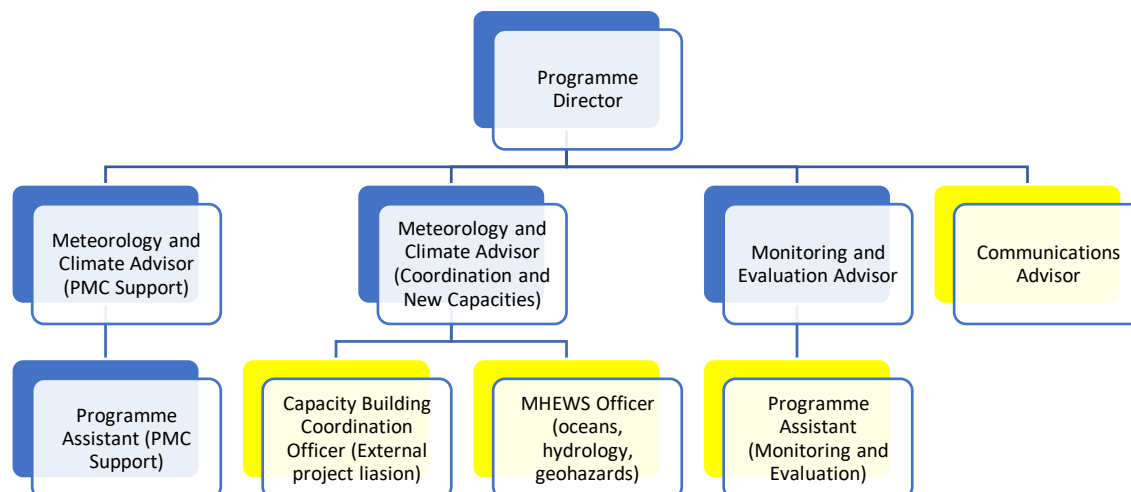


Figure 6 'Progressive model' Programme structure. Areas marked in yellow are additional positions to the Minimum Viable model.

4.3.4 Accelerated model

The 'Accelerated' model takes a slightly different approach with a larger focus on tapping into individual themes of the Pacific 2050 Vision and seeking additional funding lines to help support those themes. It plans for new staff positions to be created through specific programs associated with defence, resources/economic development, and aviation/marine funding streams. As noted above, each of these would strongly benefit from improved meteorological and related services. In the case of aviation, for example, there are specific international meteorological and volcanological requirements mandated through the International Civil Aviation Organization (ICAO), which are cost-recoverable from overflight and landing charges. It would be more than reasonable for SPREP to seek additional partner investment to ensure that ICAO standards are met and reinforce the work of the PMC in this regard. So, in this model:

- Funding for a 'Peace and Security' coordination officer would be sought to focus on Pacific defence and security interests, ensuring that hydrometeorological and early warning services in the region are consistent, high quality, and suitable for regional needs (including for humanitarian needs following disasters)
- A 'Resource and Economic Development' coordination officer would be focusing on consistent and high-quality services for tourism, fisheries, and other critical sectors, again from a cross-border perspective
- A 'Technology and Connectivity' Officer (or officers) would focus on aviation and marine services, and would also be looking at opportunities for improving the application of technological solutions in appropriate ways, with the Weather Ready Pacific team to do so

The Accelerated model adds more specific support for infrastructure and services coordination and for research and training coordination. This recognises the anticipated workload around harmonization of the many related projects in the region, including major initiatives such as Weather Ready Pacific and the Systematic Observations Financing Facility and high priorities such as the Regional Instrument Centre, but also many bilateral activities and the presence of multiple partners in each country. The model also designates a Research and Training Officer to support the high priority efforts (led by Weather Ready Pacific) to develop an ongoing Regional Training Centre in Fiji, to help drive related research in the Pacific, and to encourage global institutions to focus on Pacific issues and to include NMHS staff and stakeholders in their related work and publications.

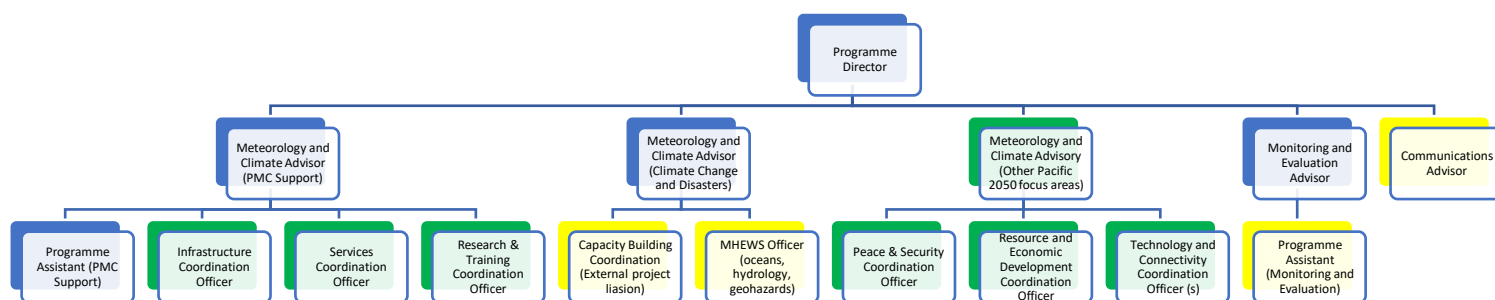


Figure 7 'Accelerated Model' Programme Structure. Areas marked in green are additional positions to the Progressive Model. Note that the names for many of the green positions are chosen to align with specific areas of the Pacific 2050 Implementation Plan – for example, marine and aviation services are grouped in the 2050 Plan under 'Technology and Connectivity', and are a high priority for PMC.

4.4 Finances

4.4.1 Costs

The approximate costings below reflect the four different levels of potential investment into the new Programme, including the current level which is unsustainable (refer stakeholder comments). The three additional levels show the approximate costs of additional prioritisation as discussed above.

Table 7 - Approximate annual costings for models described in text

Personnel Costs	Current	Stable	Progressive	Accelerated
Director, Meteorology & Early Warnings		320	320	320
Meteorology & Climatology Advisor (PMC Support)	145	145	145	145
Meteorology & Climatology Officer (PMC Support)	145	100		
Meteorology & Climatology Advisor (Coordination and New Capacities)			145	145
PMC Capacity Building Coordination Officer			100	100
MHEWS Advisor (oceans, hydrology, geohazards)			100	100
Monitoring and Evaluation Officer/Advisor		100	145	145
Programme Assistant(s)		32	65	65
Communications Advisor			120	120
Meteorology & Climatology Advisor (Climate Change and Disasters)				145
Meteorology & Climatology Advisor (Other Pacific 2050 Focus Areas)				145
Peace and Security Coordination Officer				100
Technology and Connectivity Coordination Officer				100
Research & Training Coordination Officer				100
Infrastructure Coordination Officer				100
Services Coordination Officer				100
Resource and Economic Development Coordination Officer				100
Total Personnel Costs ('000 USD)	290	697	1140	2030
Operating Costs*				
Consultancies		100	250	350
Other	3	50	100	200
Travel	1	50	120	200
Workshops and trainings	1	60	100	200
PMC Meetings (biennial), Panel Support		200	300	350

Other Workshops and Trainings		100	150	200
Total Operating Costs ('000 USD)	5	560	1020	1500
Grand total ('000 USD)	295	1257	2160	3530

4.4.2 Funding Strategies

The proposed models obviously require potentially significant investment, although it could be reasonably argued that this investment would create benefits for the region that far outweigh the cost of investment. Typically, cost to economic benefit ratio estimates for meteorological and climate services are estimated at around the 1 to 10 level, although studies vary. For the Pacific Meteorological Council, the principal benefit for investment in Secretariat support is to increase the *effectiveness* of the dollars being spent and to attract *further investment* into the region, particularly to address critical strategic needs. The assessment of the usefulness of the investment will ultimately be through the Monitoring and Reporting function tracking the overall service levels and excellence of weather, climate, water, multi-hazard early warning systems and related functions.

Consistent with the Review recommendations, the following strategies are suggested, alongside the SPREP-wide strategies recommended by the SPREP Finance & Resource Sustainability Strategy:

- 1) Recruitment of enough officers to fill the 'Stable' model positions from any available SPREP funding, with a view to addressing high priority risks and ensuring that critical recommendations are addressed, particularly in terms of ensuring that PMC is strategically fit for purpose,
- 2) Exploring with partners and donors the potential for specific long-term Secretariat support to run Panels and activities in support of Pacific 2050, broadening the climate and weather focus by including some sector specific positions:
 - a. A regionally integrated suite of services to support Peace and Security operations;
 - b. Improved fisheries, agriculture and tourism services in support of economic development;
 - c. Targeted programs for safe aviation and maritime navigation, including progress on aviation cost recovery where possible (including for volcanic observatories);
 - d. Improved ICT infrastructure, security and stability for Pacific NMHS in line with the Technology thematic area, ensuring that each NMHS reaches an acceptable level of ICT resilience and that appropriate global technologies (for example, high resolution numerical modelling) are applied efficiently and effectively to assist with Pacific problems,
- 3) Each proposed sector position proposal should carefully consider the recommendations of the SPREP Finance & Resource Sustainability Strategy, particularly noting discussions on cost-recovery (page 12 of that Strategy), non-traditional financing approaches and the opportunities inherent in introducing new programme elements that are fully compatible with existing efforts (for example in supporting currently unfunded or underfunded PMC activity such as the work of the Pacific Island Aviation Weather Services or Pacific Island Marine Weather and Ocean Services Panels), and
- 4) Ensuring that the Monitoring and Evaluation activities conducted by the team produce objective information that may be useful for articulating further investment needs.

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Appendix A – Suggested updates to the PMC Terms of Reference

Terms of Reference for PMC



TERMS OF REFERENCE FOR THE PACIFIC METEOROLOGICAL COUNCIL

1. Introduction

1.1. The Pacific Meteorological Council (PMC) is a specialized subsidiary body of the SPREP Meeting, established ~~at the 14RMSD meeting in Majuro, RMI, in 2011~~ to facilitate and coordinate the scientific and technical programme and activities of the Regional Meteorological Services. The PMC ~~replaces the RMSD and~~ provides policy relevant advice to the SPREP Meeting on the needs and priorities of SPREP member countries and territories in relation to meteorology (weather and climate) and related fields. These Terms of Reference describe the vision, objectives, principles, core roles and functions of the PMC, including its governance and administrative arrangements within the SPREP framework.

2. Vision

National Meteorological ~~and Hydrological~~ Services (NMHSs) of the PICTs are able to provide appropriate weather, climate, water and integrated multi-hazard early warning services¹ to their nations and communities to safeguard life and property, and are contributing to national development programmes through sustained observing systems, telecommunications, and data processing and management systems serving end users.

3. Objective

3.1. The PMC will work to strengthen the capacity of the National Meteorological Services thus contributing to maximization of the safety, well-being, and development aspirations of the people of the Pacific with respect to provision of weather, climate, and related development services² by:

- (a) Providing an open forum for members to discuss and collaborate on issues related to the advancement of meteorological and related services in the Pacific;
- (b) Building on mutual and complementary strengths in order to develop innovative approaches that support the sustained achievement of agreed national and regional development goals;

¹ Hydrological and multi-hazard early warning services might be coordinated through agency partnerships under various national government arrangements.

² The PMC and the nature of its linkages to fields of disaster management, climate change, hydrology, and others will require that its Members shall coordinate their work mutually to facilitate enhanced effectiveness of services nationally and regionally.

(c) Collaborating with partner organizations and agencies in related sectors;

(d) Advocating for the needs of the Pacific, consistent with the Implementation of the 2050 Strategy for the Blue Pacific Continent

3.2. ~~This~~ These Terms of Reference ~~is~~ are a tool to guide the Pacific Meteorological Council as to PMC membership, governance, meetings and principles of engagement and provide record of how Members of the PMC would like to work together, with a view to achieving a common understanding on its role, capacity and framework of operation.

4. Membership

4.1 The PMC comprises the Directors/heads of ~~NMHSs~~ Meteorological Services of SPREP Members.³

4.2 The PMC will actively engage with relevant CROP agencies, international agencies, development partners and donors. Representatives of these organizations shall be invited to PMC meetings to participate in and contribute to any PMC deliberations related to mutual and complementary fields of activity.

5. Governance

5.1 The SPREP and PMC Rules and Procedures will apply to the PMC meetings.

5.2 The Pacific Meteorological Council is established by endorsement of the 21st SPREP Meeting, Madang, Papua New Guinea, 2010. It is designated as a subsidiary body of the SPREP Meeting, operating within the bounds of the legal framework of the SPREP Agreement.

5.3 The PMC shall make reports to the SPREP Meeting on decisions and resolutions and other relevant outcomes from its meetings.

5.4. Secretariat support for the PMC shall be provided by the SPREP Secretariat. This includes planning and logistical support for PMC meetings and for managing documentation and procedures relating to planning and administration.

6. Meetings

6.1. The PMC will generally meet biennially, but may meet as required intersessionally.

6.2. At the commencement of each meeting of the PMC, a Chair and Vice-Chair shall be appointed. The Chair and Vice-Chair shall serve intersessionally, working closely with the Secretariat to ensure that decisions agreed by the Council are acted upon, and that adequate preparations are made for forthcoming Council meetings, including the timely preparation of relevant working papers and reports.

6.3. Secretariat support to the meetings of the PMC shall be provided by the SPREP Secretariat as per 5.4.

6.4. The PMC and Secretariats of the SPREP and WMO shall also seek opportunities for intersessional meetings where these present themselves and as when such meetings may be required.

³ Where there is any ambiguity who shall represent the NMHS (for example, if Meteorological and Hydrological Services are provided from separate agencies), the Member shall be asked to provide a nomination to represent the full interests of the NMHS.

7. Roles and Functions of the PMC

7.1. The PMC shall:

- (a) Provide an open forum for its members to discuss and collaborate on the needs of Pacific Island Countries and Territories with respect to weather and climate services, and related issues;
- (b) Promote capacity development within the region, focused on improving members' capability to provide accurate, timely and reliable weather forecasts, multi-hazard early warnings of natural hazards⁴, and ~~warnings of severe weather, hydrological information as appropriate, and~~ climate outlooks and scenarios, ~~and associated hazards~~;
- (c) Develop strategies with associated goals and targets to support the advancement of meteorological and related services in the Pacific, in collaboration with WMO and relevant partner organizations;
- (d) ~~Oversee-Monitor and evaluate~~ progress in the implementation of strategies to support the advancement of meteorological and related services in the Pacific~~;~~;
- (e) Provide guidance to Members and the SPREP Secretariat and partner organizations with respect to programmes related to weather, climate and associated environmental matters in the Pacific~~;~~;
- (f) Collaborate with the Pacific Meteorological Desk Partnership on the implementation activities and priorities of Members, and contribute to the monitoring and evaluation of the Pacific Meteorological Desk Partnership~~;~~ and
- (g) Report regularly on the activities of ~~the~~ NMHSs so as to assist the advancements of meteorological services in the Pacific.

8. Principles of Engagement

8.1. The PMC subscribes to the following key principles:

- (a) *An open, trusting and safe environment*: The Pacific Meteorological Council will work to enhance transparency and accountability of its decision making process, through open dialogue and constructive engagement among the Council's members.
- (b) *Participatory approach*: The Pacific Meteorological Council will promote a participatory and inclusive environment incorporating gender equity which will continue to strengthen its participatory approach to decision-making. Decisions will be made by consensus and through a consultative process. Where this should prove unfeasible, the Chair will make a decision taking into account the majority of the views expressed by the Council
- (c) *Teamwork*: The Pacific Meteorological Council's members will create an environment to work collaboratively to achieve better results, learn from one another, and ensure the enhanced delivery of measurable results in support of the national, regional and international development agenda.

⁴ Multi-hazards (for example, for hydrological and geological hazards) might be provided by agencies in partnership, but PMC will strongly encourage members to ensure an integrated service regardless of in-country organisational arrangements.

- (d) *Coherence*: Within the context on each NMHS objectives, deliverables and performance indicators the Council will proactively work to identify opportunities and synergies for joint regional approach.
- (e) *Respect for diversity*: The Pacific Meteorological Council will invest the necessary time and effort to understand each of its Member national goals, objectives, deliverables and performance indicators, and recognize and appreciate the cultural diversity among the Members programme modalities, operational activities and capacities.
- (f) *Creativity and innovation*: The Pacific Meteorological Council will explore means of improving work towards achieving the desired outcomes for all NMSs in the Pacific region to being able to provide all relevant and appropriate meteorological services to their nations, and bringing them closer to their clients and partners.
- (g) *Accountability for results*: National ownership and leadership will drive the renewed focus on creativity and innovation. The Pacific Meteorological Council will be guided, to the extent possible by the national governments and authorities to determine the most appropriate actions to be taken both programmatically and operationally.
- (h) *Build on existing capacities*: Rather than creating new institutional units, the Pacific Meteorological Council will work with the capacities available within SPREP and WMO and NMSs to drive weather climate, and related fields in the Pacific region.

9. Update of the Terms of Reference

- 9.1. The Pacific Meteorological Council may update this Terms of Reference as the need arises.

Appendix B – Draft PMC Executive Board Terms of Reference

The draft TOR below are based on the SPREP Executive Board Terms of Reference and the PMC Terms of Reference, with adjustments to reflect an intent to have focused, virtual meetings.

1. Introduction

The PMC Executive Board is designed to be the PMC decision-making body in the alternate years of biennial PMC Meetings. It is modelled on the SPREP Executive Board. It will:

- be a body to take key governance decisions in years alternate to the PMC Meeting and to represent PMC in key high level consultations as needed;
- have membership based on Member representation and equity, including bilingualism;
- be a mechanism that is cost effective and sustainable;
- be a mechanism that is flexible to include other membership as necessary;
- be a mechanism that ensures that the Secretariat remains accountable to Members; and
- work alongside existing governance mechanisms such as Special Meetings of the PMC and the role of the Chair, Vice-chair and Panels between PMC meetings.

By default, the PMC Rules of Procedure shall apply to the Executive Board. In applying the Rules the Chair shall be guided by the purpose and functions of the Executive Board.

2. Purpose

The Executive Board will serve as the governance mechanism for the key decisions of PMC in years alternate to the PMC Meeting, unless PMC Members request a special meeting of the full PMC or the Executive Board decides that a special meeting is required.

3. Principles

The Executive Board is appointed, authorised and delegated by the PMC Meeting to make decisions required annually in the alternate year to the PMC Meeting. The Executive Board hence remains subordinate to the PMC Meeting and cannot make decisions affecting PMC that require the input of all PMC Members or overturn decisions made by the PMC Meeting.

4. Key Functions

The Executive Board will:

- make decisions required annually in the alternate year to the PMC Meeting, particularly regarding high priority or urgent matters;
- represent PMC in high level consultations, such as with United Nations or CROP agencies;
- make recommendations to Members;
- give directions to the Secretariat on the implementation of the programme of works agreed by the full PMC; and
- carry out such other tasks not excluded by these Terms of Reference as are necessary for the effective functioning of PMC until the next PMC Meeting.

5. Membership

The Executive Board shall comprise of the PMC Chair and Vice-chair and one representative from the regional subgroupings of Polynesia, Micronesia, Melanesia and Metropolitan and will include at least one French speaking Member. Membership shall rotate by alphabetical order every two years. In the event the rotation does not include at least one French speaking Member or a member of the regional subgroupings, an additional member(s) will be chosen in alphabetical order.

The representative from each subgrouping with the support of the Secretariat will be responsible for coordinating input to the meeting prior to it convening and reporting back to the respective regional subgroupings the outcomes of the meeting held.

6. Role of Secretariat

The Secretariat will be responsible for the organisation and servicing of meetings. The Secretariat will be responsible for making all necessary arrangements for such meetings and for the preparation and circulation at the proper time of the agenda and all other necessary documentation.

7. Term

Executive Board membership shall not exceed a term of two successive years.

In the process of alphabetical rotation, a member may defer their term on the Executive Board for a maximum of two years. The member will inform the Chair copied to the Secretariat in writing three months immediately after the PMC Meeting has convened.

8. Participation

Sessions of the Executive Board shall be held in closed session, unless the Meeting decides otherwise. Advisers and observers may, with the consent of the Chair, address the Meeting and participate in its discussions.

In line with the principles of equity, transparency and accountability all PMC Members that are not Executive Board Members may submit through the Chair written submissions they wish to be considered on any agenda item in the Meeting, which must be provided to the Secretariat at least two weeks prior to the Executive Board Meeting convening. Copies of all such comments received by the Secretariat will be distributed to all PMC Members at least one week prior to that Meeting.

9. Chair and Vice-Chair

The current Chair and Vice-Chair of PMC shall serve as the Chair and Vice-Chair of the Executive Board.

10. Frequency and format of meetings and language

The Executive Board will hold at least one meeting with the Secretariat in the alternate years of the PMC Meeting. The meeting will be held virtually unless otherwise agreed.

The language used will be in line with the Rules of Procedure of the PMC Meeting.

11. Decisions

In line with the PMC Rules of Procedure, the work of the Executive Board will be by consensus.

In the event that a decision is required, that decision shall be taken by consensus of the Members ensuring that their views have been properly considered and taken into account in reaching that consensus. Decisions will not be made where there is no consensus.

12. Agenda and Report

The provisional agenda and working papers will be circulated at least three weeks prior to the Executive Board Meeting. The provisional agenda shall include, without limitation:

- Progress Reports on actions decided by the full PMC, including the implementation of the Pacific Islands Meteorological Strategy. The actions and related PMC decisions themselves shall not be reopened for discussion unless there is a specific request to that effect that has been notified to the whole PMC with sufficient notice for comment. The Executive Board shall focus on monitoring the progress of agreed actions and assisting with guidance or support as required.
- An overview of Panel activities since the preceding PMC, including any response to Panel requests for support or guidance.

- Any matter proposed by a Member or the Secretariat

All PMC Members will be invited to submit their comments to the Secretariat at least one week prior to the convening of the Executive Board Meeting and copies of all such comments received by the Secretariat will be distributed to all Members as soon as practicable after receipt.

The PMC Executive Board Report adopted by the Meeting will be circulated by the Secretariat for endorsement of its decisions by all PMC Members within a three-week period. No response will be taken as agreement.

13. Biennial Review

The effectiveness of the Executive Board will be reviewed biennially and reported to the PMC Meeting by the Chair with the support of the Secretariat.

Appendix C – Summary of commentary and analysis against OECD Criteria.

OECD Criteria	Summary Comments	Recommendations
Relevance Is the PMC doing the right things?	- Strong evidence PMC responding to the needs of the Pacific, eg Pacific Islands Meteorological Strategy (PIMS), Pacific Ministerial Meeting on Meteorology (PMMM), Weather Ready Pacific (WRP). High attendance at PMC meetings, despite the criticisms made of the meeting format. - Current PIMS highly consistent with the aspirations of the Pacific 2050 Vision. - Structural challenge for enhancement of multi-hazard early warning systems (MHEWS) and link to hydrology and geohazards.	- Adjust PMC Terms of Reference to clearly link them to the achievement of the Pacific 2050 Vision - Ensure that the PMC Work Programme is also clearly linked to the Pacific 2050 Vision, with explanatory communication materials prepared as necessary (note that PMC activities will necessarily extend beyond specific points mentioned in Pacific 2050) - Ensure that the Pacific Islands Meteorological Strategy update is likewise framed largely in Pacific 2050 terms, particularly in terms of maximising regional public goods in support of the 2050 Vision's goals and Regional Collective Actions - Continue Pacific Ministerial Meeting on Meteorology (PMMM), noting that meteorology is a cross-cutting activity and high visibility / accountability across multiple portfolios is desirable - Adjust PMC Terms of Reference to include references to National Meteorological and Hydrological Services and hydrological outcomes, consistent with the PIMS. - Explicitly include reference to and responsibility for promoting integrated MHEWS (including geohazards) in the Terms of Reference, work programme, and Panel structures, in coordination with SPC*
Coherence How well does the PMC fit in the region?	- PMC is well aligned institutionally for SPREP, but concerns about deep expertise required. PMC also a very good fit for the region. - SPREP committed to setting up PMC support functions and projects under a separate Programme, enhancing PMC as a community of practice. - Broader development environment in the Pacific partially incoherent, frustrating everybody. PMC seeks to increase coherence. Needs to increase strategic reach as well as having well-defined relationships with 'in-house' projects such as Weather Ready Pacific and COSPPac.	- Strongly support SPREP's initiative to create a new Programme within the Secretariat Structure with a range of skill sets to support coordination and advocacy of the range of PMC activities - Ensure that regional and international partnerships are actively maintained as required by Pacific Leaders, building on the Pacific Partnership Coordination Mechanism and using more of a continuous engagement approach than large PMC meetings. A particular focus area should be SPREP/SPC practical arrangements in support of the Climate Change and Disasters thematic area of Pacific 2050, and the Framework for Resilient Development in the Pacific. These arrangements include the specific responsibilities and funding of staff involved - Strongly articulate the importance of an integrated climate change and disasters narrative by communicating the physical links between hazards and their impacts, alongside advocacy for integrated organisational and technical approaches. Incorporate this understanding in the PIMS and communicate this to Pacific stakeholders and donors
Effectiveness Is the PMC achieving its objectives?	- Strong evidence that PMC making progress. However, stakeholders also frustrated at rate of progress, primarily attributing this to resourcing of the PMDP. Examples include Panel effectiveness. Generally concerns about meeting format, late circulation of meeting agendas, slow follow-ups, poor communication, and general lack of progress in some areas. Staff well respected, but known to be 'stretched' in their roles. - Consider the degree to which PMC is addressing differential results across Members, and within Member countries. Inequity of outcomes will increase in prominence as the region moves more towards user-centred services. - PMC ideally placed to take a monitoring and evaluation function of impact of <i>all</i> interventions into Pacific services, and to establish a strong platform of user advocacy based on the services provided.	- Monitor SPREP's progress in implementing the recommendations of the 2024 SPREP Finance & Resource Sustainability Strategy, and provide input as necessary - Urgently recruit additional staff to establish a sustainable core PMC Secretariat as part of PMDP - Explore with partners and donors the potential for specific long-term Secretariat support to run Panels and activities in support of Pacific 2050, noting that over-use of project-funded staff can be problematic. Explore a wider funding base, including contributions from new national, private and philanthropic partners. Use any additional support to strengthen activities and reporting on progress on Pacific 2050 goals and to more strongly engage international community - Develop proposals for additional sector initiatives to help the achieve Pacific 2050 Vision. Examples will take advantage of existing PMC Panel and existing project and Programme efforts - Establish processes for monitoring progress against objective standards of NMHS capabilities, preferably using internationally recognised peer-assessment methodologies such as the Country Hydromet Diagnostics. - Undertake regular cost-benefit analysis studies, demonstrating the value of investment in NMHS capabilities - Provide input to international methodologies from a Pacific perspective, particularly in terms of the assessment of user-centred services in appropriate contexts.
Efficiency How well are resources being used?	- PMC supported by PMDP on a 'shoestring' budget. Need to ensure a growth in predictable, dedicated budget without the need to seek project assistance for key activities such as support for the PMC meeting or routine consultations. Budgetary and staffing situations in SPREP inhibitors to timely progress on PMC priorities. Stakeholders are frustrated or concerned with the speed of progress in some areas, particularly where there is not strong Secretariat support for Panel activities. - Criticisms of the PMC meeting format imply that a portion of the engagement opportunity is wasted. - Some Members of PMC have suggested that PMC adopt an Executive Management Group approach similar to SPREP's Executive Board, which meets in alternating years to the full SPREP Meeting. - Efficiency limited by the low programmatic funding available for Secretariat support, in the context of the increasing complexity of the Pacific strategic environment, presence of multiple bilateral, multi-lateral and global projects (including those hosted by SPREP and by others), and overall rising expectations for timely progress in the light of Sustainable Development Goals, Sendai and Paris commitments, and the need to support Pacific strategies.	- Establish a PMC Executive Board for efficiency of process (noting that PMC has scope to refine its working arrangements under SPREP rules), including for making key decisions, driving progress including in non-PMC meeting years, and representing PMC in high level discussions. - Update the Rules of Procedure to allow a one-half Quorum at Special Meetings, noting that Special Meetings will be held with a strictly restricted Agenda. - Set a minimum notification period for Special Meetings (two weeks is suggested, for a virtual meeting without physical travel), noting that the current Rules give a maximum period (six weeks or as agreed), but no minimum. - Noting the large attendance at in-person meetings and various frustrations expressed, consider a revised management approach for in-person meetings that explicitly includes inclusive and creative engagement with PMC observers.
Impact What difference does the PMC make?	- Pacific-led nature of the body, importance of strengthening the voice of Small Island Developing States, and positive achievements all good. - A stronger role of PMC is desirable and would be welcomed in the strategic space. Pacific Partnership Coordination Mechanism (PPCM) is a positive example, well conceived but is likely to struggle to perform its role without specific local support. - Stronger Pacific engagement directly into international processes (eg WMO, UNESCO, ICAO, IMO) for maximum impact. Appetite for a louder Pacific voice on the world stage. - PMC's unique function in bringing the Directors of NMHSs into a single forum important platform to seek equity of services between countries and different populations within countries. Major projects such as COSPPac and WRP can benefit from this in seeking regional better outcomes. Need more comprehensive strategy to advance equity issues at the broader scale.	- Ensure that PMC creates and maintains an Engagement Strategy that specifically considers how to promote and monitor the use of the PIMS in the wider Pacific context, outside the funded projects that SPREP is formally part of - As part of the Engagement Strategy, allocate resources (staffing and travel funds) within the PMDP for staff to engage in priority meetings, committees, and representations at the regional (particularly WMO RA V) and international level (particularly WMO Services and Infrastructure Commissions and related processes, UNESCO and UNDRR groups and other international organisations) - As part of the Engagement Strategy, ensure that other CROP agencies are fully aware of PIMS priorities, including relevant meteorological aspects of the Pacific 2050 Vision - Ensure that PMDP communications resources are allocated for regular and relevant engagement at multiple levels, for the promotion of the PIMS and specific initiatives as appropriate - Ensure that regular consultations are held with specific sectors and with particular donors of interest - Develop a clear statement of what levels of hydrometeorological service should be aspired to across the region, in consultation with users and the Pacific Islands Forum Secretariat, and noting the need to service vulnerable users including Smaller Island States. - Review overall progress against these standards, using quantitative data where possible, at each PMC meeting, and with open discussion with donors and agencies about what has and hasn't worked and what course corrections may be required - Ensure that overall levels of progress and issues are reported to the Ministerial level for consideration in individual countries, noting that some NMHSs may need additional assistance due to local challenges
Sustainability Will the benefits last?	- Placement of PMC within SPREP ensures longevity. - Enhance PMC's influence over the broader development environment and support Pacific 2050 Vision for the needs of key sectors, to further improve benefits realisation. - Training, including in relevant Multi-hazard Early Warning System fields, will be critical. Lift in effort required. - Critical factor will be application of global initiatives into Pacific, as well as representation of Pacific imperatives to world. - Support for staff members involved in international fora is critical. - PMC can 'call out' unsustainable practices more strongly than is currently the case.	- Ensure a strategic and operational intent to have excellent implementation of relevant global initiatives, including resource-intensive operational activities such as numerical weather prediction, where such initiatives can take the load off 'home-grown' efforts. Where a global initiative is 'nearly but not quite' right for the Pacific, advocate strongly to make it appropriate and to have good implementation supported. - Monitor the success and failures of international initiatives from the Pacific perspective, particularly noting what aspects are sustainable for use by Pacific NMHSs, and what is inappropriate - Further to the resourcing of international liaison in the engagement strategy, avoid 'straight' duplication of Panel activities with international expert teams (eg WMO teams). Instead, scope Panel composition and function with intent to make local progress on key focus areas consistent with Pacific 2050 and PIMS, provide PMDP and NMHS representation into international processes (eg to WMO, ICAO, IMO, UNESCO, UNDRR) and bring international benefits into region in order to support Pacific 2050. - Prioritise international representation as a body, using NMHS and other representatives (including SPREP Secretariat staff) as agreed to ensure that individual and total workload are useful and constructive. - Regularly review such representation to account for shifting international landscapes and achievements made, as well as develop a diverse range of staff members. Advocate internationally for good practices in utilising Pacific representation, including for virtual and in-person meetings - Support all relevant staff, including NMHS staff, in developing international liaison skills and the capacity to advocate directly for the Pacific, including for outcomes consistent with the PIMS and the Pacific 2050 Vision - Ensure that Secretariat staff receive time allocations to engage directly with international processes within their area of expertise. Reinforce the importance of NMHS participation in international discussions with Member States at the Ministerial level, and contribute to debaters about the priority of various participative opportunities as required. - International organisations will, in general, be strongly welcoming of Pacific representation, including of female staff in particular. However, they may not be fully understanding of Pacific time zones or logistics, or the most appropriate ways to use Pacific insights without contributing to staff burnout. - Develop a strategy and protocol for public (or private) PMC comment on unsustainable practices in projects. Ensure that such comment is developed in a neutral manner and can be applied either to SPREP-involved or other projects, to avoid actual or perceived conflicts of interest. - Balance such comment by continuing to celebrate project achievements, including for those that have no direct involvement from SPREP or other CROP agencies. Ensure that the positives of 'good' donor practices are fairly acknowledged.