Eighth Meeting of the Pacific Meteorological Council (PMC-8)

Weather Ready for a Secured and Sustainable Pacific

10, 11, 14 September 2026 | Nuku'alofa, Tonga

Agenda Item 19.4: Pacific Meteorological Asset Policy Framework and Pacific Meteorological Data Policy Framework

Purpose:

- To seek PMC approval of the Pacific Meteorological Asset Policy Framework and the Pacific Meteorological Data Policy Framework as foundational regional instruments to support meteorological and hydrological services across the Pacific
- To note the accompanying Explanatory Paper providing supporting information to the two Policy and Framework, including the outcomes of regional stakeholder consultations and the rationale underpinning the two proposed policy framework

Objectives:

1. Present the Pacific Meteorological Asset Policy Framework and the Pacific Meteorological Data Policy Framework for PMC endorsement and adoption
2. Establish a common Pacific-led approach to asset and data management that strengthens service delivery, sustainability, interoperability and regional cooperation
3. Provide a foundation for sustainable financing, long-term maintenance, regional collaboration, and strengthened National Meteorological and Hydrological Services (NMHSs)

Background:

In 2025, Weather Ready Pacific program prepared a roadmap for Sustainable Financing and Asset Management, which recommended asset and data policies to be developed. A regional asset and data policy framework sets a shared Pacific-led approach to asset and data management. These support interoperability, streamline sharing and regional efficiencies, cost recovery for sustainability of Pacific hydrometeorological and MHEWS services.

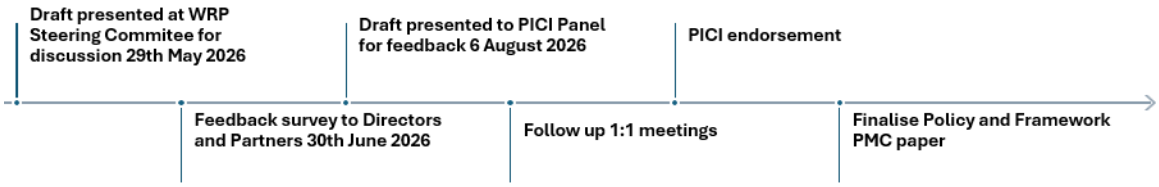
Pacific NMHSs and regional organisations manage a substantial network of observation and related ICT and infrastructure assets. These assets require sustained investment, effective maintenance, lifecycle planning, and coordinated management to remain operational and fit for purpose. The region also generates increasingly large volumes of meteorological and related data that must be managed, shared and protected in a consistent and sustainable manner

The proposed policy framework establishes a shared regional approach to asset management and covers observation networks, ICT infrastructure, facilities and other critical operational assets supporting the Meteorological Agencies. It is built around ten (10) key principles, as noted in Annex 1 and supported in the Explanatory Paper (Annex 3)

Complementing the Asset Policy Framework, the Pacific Meteorological Data Policy Framework establishes a regional approach to data governance, interoperability, ownership and exchange. The framework recognises meteorological and related data as strategic assets that support forecasting, climate services, disaster risk reduction and revenue generation opportunities. The framework is guided by ten (10) principles, as noted in Annex 2 and supported in the Explanatory Paper in Annex 3.

Principle 9 relating to SPREP stewardship is to affirm SPREPs role to assist NMHS operationalise the asset policy and data framework. The stewardship role as outlined in the Explanatory Paper, must be a phased implementation as systems, capability and resourcing develop. It will require a period of functional design and clarifying roles in the region to assist rather than duplicate existing functions such as a Regional WIGOS Centre. It will be developed in partnership with SPC and draw on technical partners, while Pacific capability is being built.

Below is a timeseries, detailing the stakeholder consultation process.



Stakeholder Feedback and responses are noted in Appendix A. The draft policy and framework has been supported by the Pacific Islands Communications and Infrastructure panel.

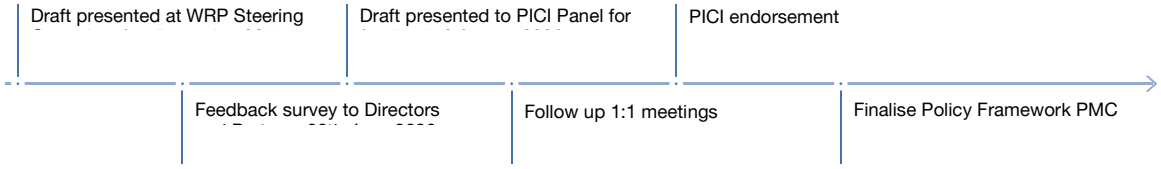
Recommendations:

The Meeting is invited to:

i. **Endorse** the Pacific Meteorological Asset Policy Framework as the regional approach for sustainable asset management of meteorological, hydrological and related infrastructure across the Pacific (Annex 1)
ii. **Endorse** the Pacific Meteorological Data Policy Framework as the regional approach for data governance, interoperability, ownership and exchange (Annex 2)
iii. **Encourage** members to progressively align national asset management and data governance arrangements with the approved Policy Framework
iv. **Note** the supporting Explanatory Paper and stakeholder consultation undertaken (Annex 3)
v. **Request** SPREP, in collaboration with Members, SPC, WMO and Development partners, to support implementation, monitoring and periodic review of the Policy Framework.

Appendix A – Stakeholder Feedback and Response

Stakeholder consultation process is outlined here and the stakeholders which responded to the survey is listed here.[1] The feedback received and how it was addressed is summarised below.



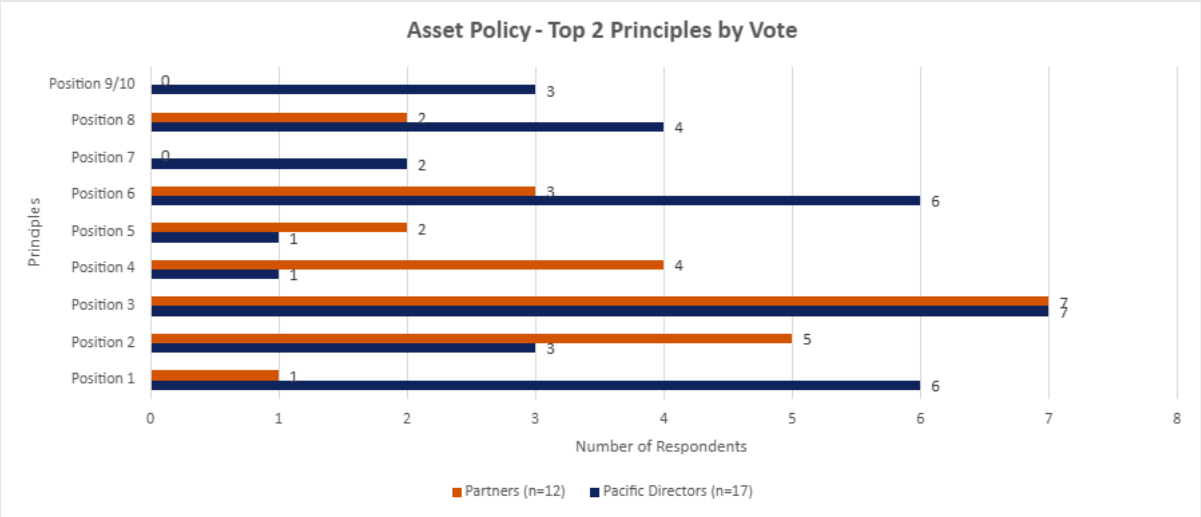
Respondents List

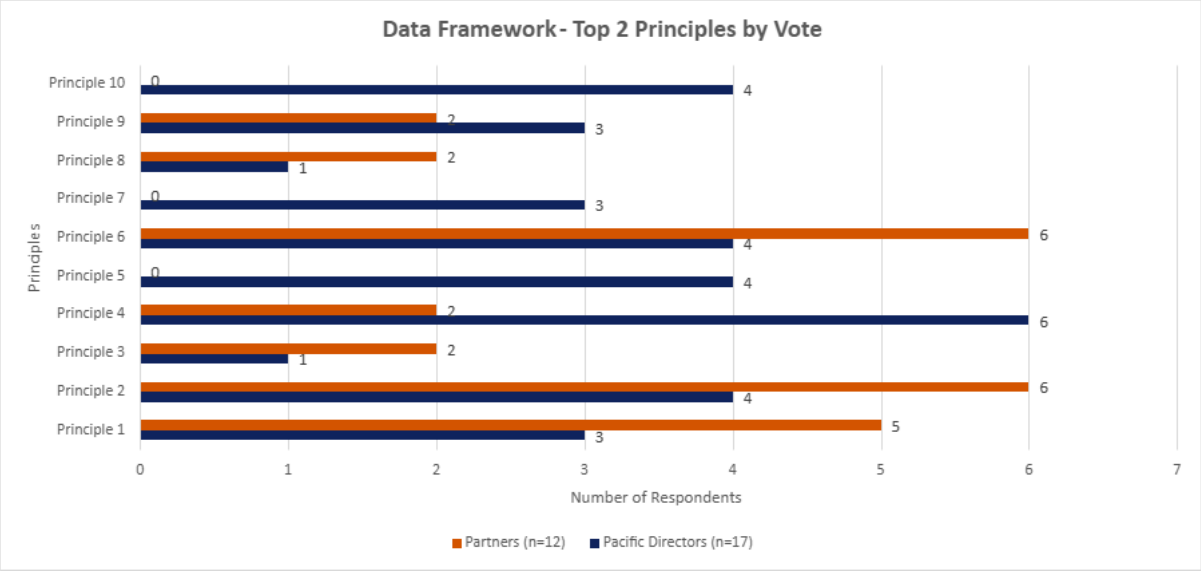
1. Laitia Fifita — Tonga Meteorological Service (Director)
2. Jimmy Gomoga — PNG National Weather Service (Director)
3. Ueneta — Kiribati Met Service (Director)
4. Rennie — Ministry of Lands, Survey, Spatial Planning and Natural Resources (Director)
5. Philippe Frayssinet — Météo-France French Polynesia (Director)
6. Maara Vaiimene — Cook Islands Meteorological Service (Director)
7. Karl Monnik — Bureau of Meteorology (Partner)
8. Sebastian Detenamo — Nauru Meteorology & Hydrology Service (Director)
9. Misaeli Funaki — Fiji Met (Director)
10. Wilfred Nanpei — Weather Service Office Pohnpei, FSM (Director)
11. Boaz Levu Antfalo — Vanuatu Meteorology & Hydrometeorological Services (Director)
12. Tauala Katea — Tuvalu Met Service (Director)
13. Frederic Atger — Météo-France Nouvelle-Calédonie et Wallis & Futuna (Director)
14. Elisapeta Eteuati Kerslake — UNEP (Partner)
15. Cameron on behalf of the team — IFP Project (Partner)
16. SPC-Ocean Prediction and Monitoring Team — Pacific Community (Partner)
17. Jeff Aquilina — Bureau of Meteorology (Partner)
18. Megumi Tsukizoe — WMO, Division of Development Partnerships and Program Delivery, seconded expert from JICA (Partner)
19. Peter — Australia - DFAT (Partner)
20. Gabor Szikszai — MetService NZ (Partner)
21. Jessica Yeung (collective feedback for BoM) — Bureau of Meteorology (Partner)
22. Jonathan Matamaru Tafiariki — National Disaster Management Office - Solomon Islands (Director)
23. Reginald White — RMI Weather Service Office (Director)
24. Yongqing Chen — WMO Regional Office for Asia and the South-west Pacific (Partner)
25. Krunoslav Premec — WMO (Partner)
26. Ercan Buyukbas — WMO (Partner)

[1] For reference, survey form found here: Asset Policy and Data Framework Feedback Survey

27. Ben McFadden – Earth Sciences New Zealand
28. Alick Haruhiru — Solomon Islands Meteorological Service (Director)
29. Rossy Mitiepo — Niue Meteorological Service (Director)
30. SPREP - SPREP (Partner)

A.1 Survey results – two top priority principles selected by respondents





Top asset principles were:

- 3. Establish the Pacific Hydromet MHEWS Sustainable Maintenance Facility (14 count)
- 6. National Asset Policies and Asset Management Plans will be developed and updated (9 count)
- 2. Standardised regional technology for inter-operability and establish preferred supplier panels for the Pacific (8 count)

Top data principles were:

- 6. Core data will be exchanged freely and without restriction (10 count)
- 2. Regional interoperability is the default position (10 count)

- 4. National data policies and processes are established (8 count)
- 1. Pacific ownership and management of data systems is the agreed long-term direction (8 count)

A.2 Director feedback summarised

Feedback theme	Feedback received from NMHS Directors	How addressed
Country-led national asset planning *(6 directors selected it as top asset principles)*	Directors emphasised that national asset policies and plans must be the foundation for regional planning because countries are best placed to identify their priorities, operational needs, risks and investment requirements. Several respondents noted that regional planning should support, not replace, national decision-making, and that national plans should feed directly into the regional asset plan and financing priorities.	Addressed in Asset Principle 6, which confirms national asset policies and plans as the basis for country asset activities. Further clarified in this explanatory paper under Asset Principles 5 and 6, which explain that national plans provide inputs to the regional asset plan and financing decisions.
Sustainable financing and maintenance *(7 directors selected it as top asset principles)*	Directors repeatedly identified sustainable maintenance funding as a major challenge because national budgets vary, project support is short term, and equipment can fail when maintenance, spares, calibration, communications and replacement costs are not funded. Respondents supported a regional maintenance facility and project maintenance contributions, while noting the need for national budget advocacy and country-level support.	Addressed in Asset Principles 3 and 7 through the Sustainable Maintenance Facility, Maintenance Agreements and project maintenance contributions.
Standardised regional technology *(3 directors selected it as top asset principles)*	Directors supported standardised regional technology, preferred supplier arrangements, shared spares and pooled technical support where these reduce cost,	Clarified in this explanatory paper under Asset Principle 2, the need to develop supplier panel approach including governance, procurement pathways. Explained

Feedback theme	Feedback received from NMHS Directors	How addressed
	simplify training and lessen the technical burden on small NMHSs. Feedback also noted that regional standardisation should still respect country context, national needs and existing investments.	there is full flexibility for countries and projects to determine their exactly work scope for their site and decide the suppliers/equipment models, from a pre-approved list.
AIMS and asset information *(4 directors selected it as top asset principles)*	Directors supported AIMS as a national and regional source of truth for asset information, maintenance status, inventory, tracking and decision-making. Respondents highlighted the need for clear responsibility for keeping records current, including national accountability for asset information and SPREP support for regional standards, reporting and system administration.	Addressed in Asset Principle 8, which establishes AIMS as the common source of truth for asset information that feeds other systems (e.g. CliDE, OSCAR, WIS2 node). Further clarified in this explanatory paper NMHS responsibility for national records, SPREP system administration, metadata consistency, integration with other systems, training and access controls.
Pacific ownership and data sovereignty *(3 directors selected it as top data principles)*	Directors stressed that data is nationally owned and that countries must retain authority over access, sharing, permissions, cost-recovery decisions and final decision-making. Respondents supported Pacific ownership and management of data systems as the long-term direction, while recognising that staged transition and capability building will be needed.	Addressed in Data Principles 1, 4 and 7, which confirm Pacific ownership, national data policies and written data sharing agreements for non-core data. Explanatory paper clarifies under Scope, that the data owner is the asset owner, and data sharing agreements is how countries protects its interests, and specifies conditions for data and derived data products use and cost recovery.
Long-term in approved databases *(4 directors selected it as top data principles)*	Directors supported long-term storage in nationally approved databases with backup arrangements to protect country ownership, disaster recovery and continuity of service. Feedback emphasised that national policies and systems should guide where	Addressed in Data Principle 5, which confirms long-term storage in nationally approved databases with backups. Further clarified in this explanatory paper under Data Principle 5, including the illustrative target architecture, database rationalisation, backup

Feedback theme	Feedback received from NMHS Directors	How addressed
	data is stored and that regional arrangements should strengthen, not weaken, national control.	arrangements, and the need for countries to approve national databases.
Open exchange of core data *(4 directors selected it as top data principles)*	Directors supported free and unrestricted exchange of core data where this supports global model forecasting, early warning, public safety and WMO obligations, while maintaining national ownership. Feedback also highlighted the need for national laws and policies to remain central, with clear distinctions between core and non-core data sharing.	Addressed in Data Principle 6, which confirms free and unrestricted exchange of core data and sharing of recommended data consistent with WMO and RA V settings subject to conditions set out in data sharing agreements.
SPREP stewardship as support, not control and duplication *(4 directors selected it as top data principles)*	Directors generally supported SPREP stewardship roles where these reduce burden on NMHSs, improve regional coordination and support national capacity development. Feedback emphasised that SPREP should act as a facilitator and support mechanism, not a centralised control function, with country ownership and decision rights protected. Feedback also raised concerns with ambitiousness of the function given existing SPREP capacity and core staffing levels.	Addressed in Asset Principle 9 and Data Principle 9, which frame SPREP stewardship as regional support for countries. Further clarified in this explanatory paper that NMHSs retain ownership and authority, and support based on request by NMHSs. Stewardship function requires considered design, resource and funding planning, clarify roles with partners and countries, and must be a phased implementation. A distributed de-centralised support model may draw on NMHS, SPC, WMO-designated centres and partner capability.
Implementation pace and capacity	Directors asked that implementation be realistic, phased and practical, taking account of limited staffing, different country capabilities, existing national work, training needs and the operational pressures on small NMHSs. Several respondents supported	Addressed mainly through this explanatory paper rather than additional principle wording. The paper includes indicative phased implementation steps over next 4 years+.

Feedback theme	Feedback received from NMHS Directors	How addressed
	capacity building and transition support so countries can progressively lead and sustain the work themselves.	

A.3 Partner feedback summarised

Feedback theme	Feedback received from Partners	How addressed
Regional interoperability and ICT architecture *(6 partners selected it as top data principles)*	Partners strongly prioritised interoperability and a clear regional and national ICT architecture to protect investments, avoid fragmented systems and guide future projects. Feedback highlighted the importance of reliable data flows between national, regional and global systems, alignment with WIS2.0 pathways, and clarity on governance for architecture changes. Resilience and Business Continuity Plans was also highlighted as important to the architecture design.	Addressed in Data Principles 2 and 3, which set regional interoperability as the default and principle was updated to identify both regional and national ICT architecture will be developed, to support resilience and effective data flow. Further clarified in this explanatory paper under Data Principles 2, 3 and 8, including target data flows, architecture governance, business continuity, national flexibility and project alignment expectations.
Standardised technology and preferred suppliers *(5 partners selected it as top asset principles)*	Partners supported asset standardisation because small equipment volumes across the Pacific make procurement, maintenance, training, spares and supplier support difficult to sustain country by country. Feedback also asked for clearer governance of preferred supplier panels, including who establishes panels, evaluates suppliers, sets standards, manages conflicts of interest and whether countries can procure outside panels where justified. Projects highlighted procurement rules of each organisation may preclude them	Addressed in Asset Principle 2, which establishes standardised regional technology and preferred supplier panels. Further clarified in this explanatory paper that pilot panel is in progress and that will inform future including preferred supplier panel governance, transparent procurement, technical oversight, market review, project and country flexibility. Principle 2 removed "contract" and explanatory paper clarifies projects could undertake procurement using Pacific pre-approved suppliers/equipment models and specifications, rather

	using the preferred supplier panel contract of a 3rd party.	than use an already established preferred supplier panel contracts.
Regional maintenance financing *(7 partners selected it as top asset principles)*	Partners supported a long-term regional financing facility because observing equipment and ICT infrastructure can fall into disrepair where national budgets and project funding are insufficient. Feedback highlighted the importance of whole-of-life planning, lifecycle costing, maintenance agreements, communications costs, supplier support and realistic approaches that reflect donor funding cycles and different asset lives.	Addressed in Asset Principles 3, 5, 6 and 7 through the Maintenance Facility, national and regional asset plans, with amendments to more explicitly say lifecycle cost captured through agreed regional costing template. lifecycle costing and project maintenance contributions. Further clarified in this explanatory paper under Asset Principles 3, 5, 6 and 7, including what this means for Donors and Development Projects.
SPREP resourcing and governance	Partners supported SPREP stewardship roles but noted they are ambitious and require staffing, funding, technical capability, business continuity arrangements, clear governance and accountability. Feedback recommended distinguishing policy custodianship, technical operation, system administration, financial administration, stewardship and compliance monitoring, and considering how SPREP can be supported by SPC, WMO-designated centres, NMHSs and technical partners.	Addressed in Asset and Data Principle 9 SPREP's stewardship role now references working in alignment and collaboration with Partners. Further clarified in this explanatory paper under Asset Principle 9 and Data Principle 9, including phased implementation, proper design of the stewardship function, roles and responsibilities, resourcing needs, distributed de-centralised delivery models, with NMHSs, SPC, WMO-designated centres and partners.
WIS2.0, WMO and WIGOS alignment	Partners emphasised stronger alignment with WMO Unified Data Policy, WIS2.0, WIGOS, OSCAR, RA V activities, RBON and WMO-designated regional functions. WMO feedback requested recognition of recommended data agreed by RA V Members, such as RBON data, and clearer collaboration with RA V working groups to avoid duplication or	Addressed in Asset Principle 9 and Data Principles 6, 8 and 9, with added reference to regional WIGOS centre, RA V and resolutions for RBON. Principle 8 updated from "will" to "should" use WIS.2 as its not always technically feasible for large datasets. Further clarified in this explanatory paper under Asset Principles 4 and 9 and Data

	separation from WMO regional initiatives.	Principles 6, 8 and 9, including RBON alignment with the PRO Network, WMO Unified Data Policy, recommended data, supplementing resources to regional WIGOS centre rather than duplication, but additionally coordinating metadata consistency between multiple systems, an unresolved issue.
IFP and regional forecasting systems	Integrated Forecasting Platform Project feedback identified the IFP as a critical regional capability that depends on reliable WIS2.0-based data ingestion, interoperable Pacific data flows and clear data sharing agreements. Feedback also noted that SPREP stewardship scope should be reviewed following learnings following Pacific IFP and WIS2 pilot. The framework is missing IFP-generated outputs and products. The stewardship role could include governance and management of forecasting system regional standard, system maintenance, user requirements, technical support and subject matter expertise for continuous development.	Scope of the Data has been amended to include derived data products, such as those generated by the IFP. Further clarified in this explanatory paper under Data Principles 3, 7 and 8, by including the IFP Data Sharing Agreement case study. The paper clarified that the SPREP stewardship role will need to be design phase, which is the opportunity to capture learnings from pilots.
SPC role in ocean, hydrology and data systems	Partners noted SPC's important role in ocean observations, hydrology, geospatial data, the Pacific Data Hub, sectoral databases and regional technical expertise. Feedback recommended stronger recognition of SPC in regional stewardship and asset arrangements, including potential co-hosting or shared support where ocean, hydrology and other sectoral systems are involved.	Addressed in the Policy scope, by explicitly including SPC and SPREP assets and data. Principle 9 updated to recognise SPC in addition to other partner in stewardship arrangements. Further emphasised throughout this explanatory paper, by including sections on "What this means for SPREP and SPC' as the two key CROP agencies supporting the NMHSs, and acknowledging SPC's technical

		role in hydrology, ocean, geohazard, disaster risk and sectoral data systems, and opportunity to co-administer/stewards.
Core data and public-good exchange	Partners highlighted that forecasting, NWP, regional early warning and public safety depend on open exchange of core data. WMO feedback also noted that recommended data agreed by RA V Members, such as RBON data, should be considered for free and unrestricted exchange within the region consistent with applicable RA V resolutions, while respecting Members' decisions and national data policies.	Addressed in Data Principle 6, which already confirms free and unrestricted exchange of core data and added reference to sharing of recommended data RA V RBON, which is subject to data sharing agreement conditions to be set by Data owners. Further clarified in this explanatory paper under Data Principle 6, including the distinction between core, recommended and non-core data, the role of national data policies, links to public safety and early warning services, RBON considerations and data flow monitoring needs. Principle 7 provides illustrative case study of potential Integrated Forecasting Platform DSA.
Non-core data and data sharing agreements	Partners supported written agreements for non-core data and highlighted the need for clear licensing, attribution, on-sharing conditions, retention periods, access permissions, commercial-use restrictions and cost-recovery arrangements. Feedback also emphasised that data shared with regional or technical agencies should not be further shared without data owner permission, and that IFP data pathways should not be undermined by future agreements.	Addressed in Data Principle 7, which requires written Data Sharing Agreements for non-core data and confirms the role of the data owner. Further clarified in this explanatory paper under the Scope section and Data Principle 7, including data ownership, access permissions, licensing, on-sharing conditions, retention periods, commercial-use restrictions, revenue arrangements, a regional data catalogue and the IFP Data Sharing Agreement case study.
Scope and derived data products	The scope of assets and data need to be clarified as the purpose indicates only meteorology however the scope encompasses	Policy Framework purpose clarified this is through the Pacific Meteorology Council but is not limited to meteorological asset

	hydrology and geohazards. Partners indicated derived products and services from observation data needs to be in scope as this is an area of confusion around ownership.	and data. Data Policy Framework updated to explicitly include derived data products as in scope and updated Principle 7 that conditions for derived data products is to be included in data sharing agreements. The explanatory paper defines derived data products and possible condition clauses for DSAs.
Maturity-based and phased implementation	Partners recommended a maturity-based and phased implementation model that recognises varied country capability, allows staged participation, supports opt-in or flexible pathways, and avoids unnecessary compliance burden. Feedback emphasised that regional standardisation should reduce complexity and cost while allowing countries to progress at different speeds with appropriate support.	Addressed mainly through this explanatory paper rather than additional principle wording. The paper includes phased implementation tables, staged transition pathways, capacity development expectations, maturity-based stewardship, country flexibility, opt-in or staged support arrangements, and recognition that implementation will vary by national capability and resourcing.
Cybersecurity, business continuity and resilience	Partners noted the need for business continuity planning, resilient data sharing and archiving systems, cybersecurity, cloud hosting strategy, privacy considerations where relevant, operational service levels, and resilience of regional ICT systems. WMO and partner feedback also highlighted the importance of monitoring outages and integrating incident management arrangements for observations equipment and data flows.	Partly addressed in Data Principle 3 through the requirement for regional and national ICT architecture, and within Asset Principle 1 includes development of improvement strategies for ICT infrastructure, which will include cybersecurity, AI, business continuity and resilience. This is further clarified in this explanatory paper under Data Principles 3, 5, 8 and 9. Outage monitoring is the responsibility of NMHS and monitoring issues associated with global exchange is responsibility of regional WIGOS centre. The explanatory paper identifies the stewardship role could provide support if requested.

Vendor neutrality and partner alignment	Partners supported common standards while cautioning that regional standardisation should reduce complexity and cost without limiting necessary national flexibility, innovation or vendor neutrality. Feedback noted that countries may need flexibility over technology and financing choices, and that procurement governance should manage competition, conflicts of interest and confidence across the region.	Addressed in Asset Principle 2 and Data Principles 1, 3, 4 and 7, which retain national ownership and decision rights while encouraging regional standards. Further clarified in this explanatory paper under Asset Principle 2 and Data Principles 1, 3, 4 and 7, including country flexibility within preferred supplier panels, vendor neutrality through open tender and regular market review. Learnings from radar pilot will inform the design of future supplier panel arrangements, procurement processes, technical oversight, and governance.