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SIXTH MEETING OF THE PACIFIC METEOROLOGICAL COUNCIL (PMC-6) THIRD PACIFIC MINISTERIAL MEETING ON METEOROLOGY (PMMM-3)

● [HTTPS://WWW.PACIFICMET.NET/PMC-6-2023](https://www.pacificmet.net/PMC-6-2023)

Sixth Meeting of the Pacific Meteorological Council (PMC-6)

Sustaining Weather, Climate, Water and Ocean Services for a Resilient Blue Pacific

14-16 August 2023, Sofitel Fiji Resort and Spa, Denarau, Nadi, Fiji

Agenda item 15.2: Guiding Principles for Observations, Communications and ICT Infrastructures

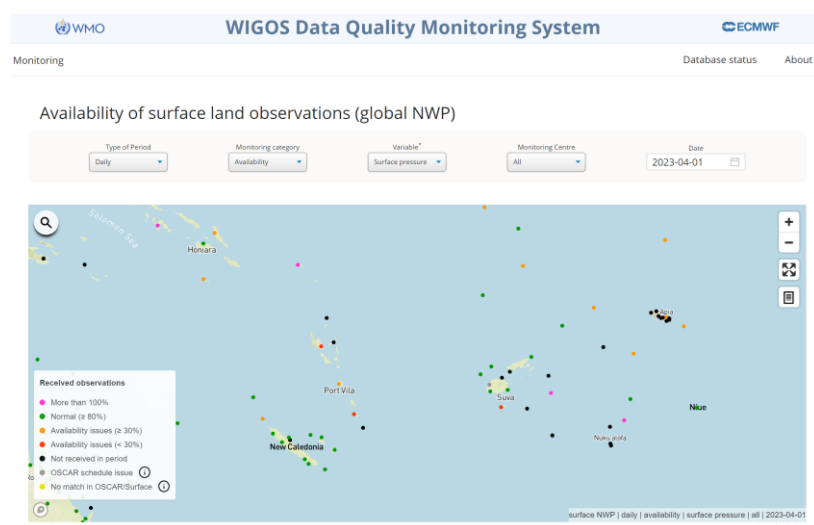
Purpose

1. To inform the meeting on the continuing issues related to basic infrastructure supporting the delivery of services across the region, and;
2. To propose to the Council the development of a set of guiding principles for observing, communications and ICT infrastructures to maximise the value of investments delivered through the Weather Ready Pacific Programme.

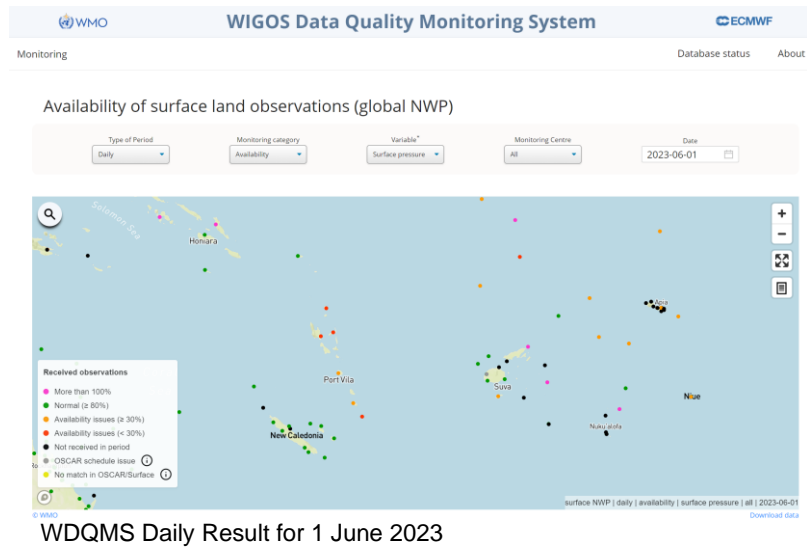
Background:

It is well recognised that sustainable hydro-meteorological services require robust infrastructure in observing, communications and ICT infrastructure in order to capture, process and exchange observations, and to generate and disseminate forecasts and warnings through national, regional and global networks.

For many years this foundational infrastructure within the region has suffered from unreliable investment and support, the results of some of which can be seen in the WIGOS Data Quality Monitoring System (www.wdqms.wmo.int) where the availability of some observations from the region is inconsistent, varying from week to week or month to month.



WDQMS Daily Result for 1 April 2023



Not only does a National Meteorological Service need to undertake a regular observation programme, manage their national communication systems and the associated ICT infrastructure, they should also:

1. Maintain their observing station metadata through the WMO Observing Systems Capability Analysis and Reporting tool – OSCAR Surface.
2. Ensure observation data reaches regional forecasting centres and Global NWP centres through robust communications infrastructures (GTS / WIS 2.0) in prescribed code forms.
3. Manage data quality through carefully planned maintenance programmes, and through regular traceable calibration services.
4. Have planned for and implemented resilience across their key infrastructure components to manage risks associated with equipment failure, or failures in supply chains e.g., having appropriate SLAs in place with ICT suppliers, Telcos etc.

Guiding Principles

When considering the need for a regional approach to the GBON Implementation plan, insights from recent Peer Advisor activity undertaking SOFF Assessments in the region point to a need for a set of guiding principles to help guide investment decisions to not just deliver the infrastructure the region requires, but to also maximise the value of infrastructure investments flowing into the region.

A set of regionally relevant guiding principles might include such things as:

- Standardization in observations technologies,
- Selection of communication technologies for regional use with SLAs that meet the special characteristics of individual countries,
- Adoption of ICT systems that leverage existing in-region capabilities.

Guiding principles will, to a degree, simplify already complex issues related to infrastructure implementation and operation, and will provide additional benefits in the training of staff and

the provision of support, and this will, in turn, help to maximise the value of any investment initiatives delivered under the Weather Ready Pacific Programme.

Recommendations:

The Meeting is invited to:

- Note that reliable weather observations are the cornerstone to all forecast and warning services.
 - Note the complexity of the issues still facing the region related to observing, communications and ICT Infrastructures.
 - Further note the regional SOFF investment planning workshop scheduled for early 2024.
 - Request assistance in the development of regionally relevant Guiding Principles for observing, communications and ICT infrastructures to maximise the value of investments delivered through the Weather Ready Pacific Programme.
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