



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

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

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

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

Agenda Item [12.2]: [Hydrological Regional Strategy Review]

Purpose:

1. **Inform** the Council of the development of a *Hydrology Action Plan for improved hydrological services to enhance flood early warning in selected PICTs* and;
2. **Garner** support for the development of regional strategy to improve hydrological services for surface water and groundwater to increase climate resilience and support national development goals.

Background:

1. National Hydrological Services (NHS) play a critical role in understanding and communicating the risks of flooding and water-related disasters, including forecasting and warning of impending flood events. This role will only become more critical as the impacts of climate change become more pronounced. Hydrological services are vital to many sectors, including water; food and energy security; disaster risk management; and the design of climate resilient infrastructure.
2. However, the limited availability of real-time data, hydrological observation systems and appropriate hydrological data management and analysis are significant gap across Pacific Island countries and Territories (PICTs).
3. To date, investment and support for hydrology has been ad-hoc and uncoordinated, resulting in hydrological services across the region not having the capacity or capability to fulfil the suite of tasks within the hydrological value chain that are required for improved climate resilience, including effective flood and drought early warning and water resources management. There is a pressing need for a regional approach, developed by PICTs' National Hydrology Services, to articulate their needs and priorities to be able to reach their full potential in contributing to national goals for climate resilience and development.



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Recognising the linkages between support to relevant agencies such as National Meteorological Services.

4. The approach will assist countries with strategic programming as well as actions to improve national hydrological services.
5. Though the perception is that there are many regional and global initiatives ongoing or commencing that aim to support hydrological services in the region, the reality is that there is need for greater coordination and alignment between initiatives to reduce duplication, while maximising opportunities to build on existing programs and work
6. An initial pilot step has been undertaken through the Hydrology Action Plan for improved hydrological services to enhance flood early warning in selected PICTs co-developed by NHSs in Fiji, Samoa, Solomon Islands and Vanuatu, with SPC.
7. This Plan is informed by experiences and outputs from the *Hydrology Support to enhance Flood Early Warning* project, undertaken by SPC over a period of two years (2022–2024). The collaborative process of developing the Plan included nearly 200 stakeholder and community consultations and the implementation of two pilot studies (in Fiji and Vanuatu). The project culminated in a Plan development workshop in Rakiraki, Fiji, in February 2024, attended by representatives of NHSs from each of the four project countries, Fiji, Samoa, Solomon Islands and Vanuatu.
8. Capacity assessments have also been undertaken or are planned to be undertaken in six PICT NHSs through the SPC *Hydrology Support to enhance Flood Early Warning* project SPC project and the National Capacity Assessments through the WMO EWS-F project. This will culminate in the development of roadmap for the targeted countries to further improve their hydrological service delivery capacity.

Objectives:

1. For PICT NHSs to articulate their needs and priorities to be able to reach their full potentials in contributing to national goals for climate resilience and development
2. For PICT NHSs to continue and strengthen collaboration with NMSs to improve climate resilience
3. Develop an approach to assist countries, regional organisations and development partners to effectively support the capacity of NHSs in surface water and groundwater hydrological services.



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Recommendations:

The Meeting is invited to:

- **Acknowledge** that the selected PICTs involved in the co-development for the *Hydrology Action Plan for improved hydrological services to enhance flood early warning in selected PICTs* recognise the utility and proof of concept of the approach to potentially progress regionally to address challenges faced by hydrological services.
- **Recommend** the development of a regional and national hydrological strategies to improve hydrological services for both surface water and groundwater to increase climate resilience and support national development goals.

