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 [Planning and Establishing of a Pacific RTC based at FMS, Suva, Fiji]

Purpose of the paper:

1. Involvement of a consultant in drawing an RTC plan and curriculum and establishing the Pacific RTC
2. Delegate the PMC Chair, the PIETR Panel Chair, USP, and relevant partners and donors to work collaboratively and mobilize resources towards setting up the Pacific RTC by 2025

Background:

The Pacific region, including Fiji, faces a growing need for education, training and research due to factors like climate service development, technical competency standards, and increased awareness of knowledge advancement. Regional Training Centers (RTCs) play a crucial role in addressing these challenges by offering education solutions amidst rapid technological evolution and rising demand.

A Pacific-based RTC brings several benefits: elevating institutional reputation on various scales, fostering capacity development by training instructors, assessing regional education needs, guiding Secretariat initiatives, and acting as WMO representatives. This status also boosts connectivity, securing support for infrastructure improvements. Moreover, RTCs provide advisory services, contributing to expertise growth and generating revenue. In essence, a Pacific RTC not only tackles education, training and research challenges but also facilitates institutional growth, expertise development, and infrastructure enhancement across the meteorological community.

In July 2015, the First Pacific Ministerial Meeting on Meteorology convened in Nuku'alofa, Tonga. A communique from the meeting requested the PIETR Panel to collaborate with regional organizations, including USP, SPREP – PCCC, SPC, and WMO, to address education and training needs for National Meteorological and Hydrological Services (NMHSs) in the Pacific. The establishment of a WMO Regional Training Center (RTC) and the enhancement of regional research capacity were proposed.

By August 2017, during the 4th Pacific Met Council Meeting in Honiara, Solomon Islands, progress was recognized, with the Fiji Meteorological Services and the University of South Pacific reporting joint advancements.

In May 2018, the UNDP RESPAC project facilitated a feasibility study for a Pacific-based RTC, involving experts like Dr. Geoff Love, Dr. Maria Mamaeva, and Mr. Jeff Wilson,

supported by the Government of the Russian Federation. The preliminary findings were discussed in August, and a detailed report was presented to stakeholders and WMO members during the Regional Area V meeting in October 2018 in Nuku'alofa.

Subsequently, in June 2019, the Chair of the PIETR panel presented the outcomes of the Feasibility Study at the WMO World Congress. This timeline highlights collaborative efforts to address education, training, and research needs in the Pacific region's meteorological landscape, leading toward the potential establishment of a WMO Regional Training Center.

The Objectives of the Agenda:

The proposed training program for Fiji and the Pacific region is organized into three phases, each designed to enhance meteorological expertise and operational capacity. These courses would be WMO accredited courses and delivered through USP which allows for regional accreditation which is advantageous for the NMHS in the PMC.

Phase 1 - BIP-MT Diploma Course: The initial phase introduces the Basic Introduction Program in Meteorology and Training (BIP-MT), a diploma-level programme regionally accredited by the University of the South Pacific (USP) and with WMO accreditation. This foundational training is aimed at providing a comprehensive understanding of meteorological concepts to learners in the regional NMHS's.

Phase 2 - BIP-M Postgraduate Diploma: The second phase involves advanced training through the Basic Introduction Program in Meteorology (BIP-M), leading to a Postgraduate Diploma regionally accredited by USP and with WMO accreditation, in collaboration with various institutational bodies like the University of Hawaii (UH), the Australian Bureau of Meteorology (BOM), and Met Service New Zealand (MetNZ), this program aims to deepen expertise in meteorology.

Phase 3 - BIP-HT Diploma Course: Building on the foundational knowledge, the third phase offers the Basic Introduction Program in Hydrology and Training (BIP-HT), a diploma-level programme regionally accredited by USP and with WMO accreditation. This qualification focuses on hydrology concepts and applications to further equip participants with specialized skills.

These phases can be complemented by additional courses, seamlessly blended into the curriculum:

1. **Aviation-Related Training:** Offering specialized insights into meteorological aspects relevant to aviation operations.
2. **Climate-Related Training:** Addressing climate science and its implications, considering the growing importance of climate services.
3. **Hydrology Short Course:** Providing focused instruction on hydrological principles and applications.
4. **Quality Management System (QMS) Training:** Equipping learners with skills in quality assurance and management for meteorological services.
5. **Capacity Building for Enhanced Weather Forecasting:** Enhancing operational meteorologists' forecasting skills and capabilities.

6. **Climate Data Analysis and Application:** Strengthening expertise in the utilization of climate (including meteorological and oceanographic) data for analysis and practical application. This may include training for acquisition, processing and visualization of large environmental datasets using high-level and open-source programming languages.
7. **Maintenance of Meteorological Instruments and Early Warning Systems:** Building proficiency in instrument maintenance and early warning system management.
8. **Weather Radar Data Utilization Training:** Offering an international course focused on effectively utilizing weather radar data for meteorological services.

This comprehensive training framework is designed to elevate meteorological knowledge and proficiency in the Pacific region. Through phased diploma courses, specialized modules, and additional training, the program aims to empower meteorological professionals, enhance forecasting capabilities, and contribute to improved weather and climate services.

Recommendations

1. **Involvement of a Consultant in developing a Pacific RTC plan and curriculum for the 3 phases above and and for Establishing the Pacific RTC:**

   Engage Expertise: Ensure that the consultant possesses in-depth knowledge of meteorology education, training methodologies, and institutional setup. Prioritize someone experienced in setting up training centers and with WMO and curriculum development expertise.

   Holistic Approach: Task the consultant with conducting a thorough needs assessment considering the diverse requirements of meteorological education, training, infrastructure, and resources.

   Stakeholder Collaboration: Involve key stakeholders, including FMS, USP, WMO, regional organizations, and potential donors, in the selection process of the consultant. Their input will ensure alignment with regional needs and objectives.

   Comprehensive Plan: The consultant should deliver a detailed plan covering organizational structure, curriculum development, faculty training, infrastructure requirements, funding strategies, sustainability, and a phased implementation approach.

2. **Delegation of PMC Chair, PIETR Panel Chair, USP, SPREP-PCCC and Relevant Partners and Donors:**

   Establish Collaborative Framework: Form a collaborative task force led by the PMC Chair, PIETR Panel Chair, and involve representatives from USP, relevant partners, and potential donors with clearly define roles and responsibilities.

   Resource Mobilization: Task the task force with identifying potential funding sources, both regional and international. Leverage partnerships with development agencies, the private sector, and donor organizations to secure the necessary resources.

Transparent Communication: Ensure transparent communication among task force members and stakeholders. Regular updates, progress reports, and collective decision-making will build trust and cooperation.

Regional Engagement: Collaborate with regional partners and organizations to pool resources, share expertise, and avoid duplication of efforts. A coordinated approach will maximize the impact of resource mobilization.

Timeline and Milestones: Define a realistic timeline with clear milestones for setting up the Pacific RTC by 2025. Assign responsibility for tracking progress and ensuring timely execution.

Implementing these recommendations will contribute to the successful establishment and operation of the Pacific RTC, enhancing meteorological education, training, and expertise in Fiji and the Pacific region.

The PMC is kindly requested to :

Note the progress made for the establishment of a Pacific RTC

Endorse

a) To develop a ToR for and establish task team under the PIETR panel to accelerate the development of the P- RTC consisting of FMS, USP, SPREP- PCCC and Relevant Partners and Donors in consultation with NHMS (including Tonga and **Vanuatu)**

Endorse the request for mobilization resources for the recruitment of a consultant for the set up and organisation structure and implementation of the Pacific RTC as well as for developing the curriculum for WMO and regionally accredited programs in BIP-MT, BIP-M, and BIP-HT