

*"Sustainable Weather, Climate, Oceans and Water Services for a Resilient Pacific"*

## **Fourth Meeting of the Pacific Meteorological Council (PMC-4) Working Papers**

14-18 August 2017  
Honiara  
Solomon Islands

### **Agenda Item 18.1: Progress on the PIETR Panel**

#### **Purpose:**

1. To report on the progress of PIETR; and present to Council members the proposal by the Government of Fiji through the Fiji Meteorological Service (FMS) to host a Regional Instrument Centre (RIC) with basic capabilities and functions that will support Region V countries, especially the smaller Pacific Island National Meteorological and Hydrological Services. The RIC will, with their qualified staff, necessary facilities and laboratory equipment, assist Members of the Region in ensuring traceability to International System of Units (SI), by the calibration of their meteorological standard instruments, namely barometers, thermometers and hygrometers.

#### **Background:**

2. The Pacific Island Education, Training, and Research Panel (PIETR Panel) was established by the Third Meeting of the Pacific Meteorological Council (PMC-3) to serve in the capacity of an advisory committee to the Pacific Meteorological Council (PMC) on education, training, research and human capacity development in relation to meteorology, climatology, hydrology, and oceanography, and delivery of weather, climate, water, marine and ocean services in the Pacific region.
3. The purpose of PIETR Panel is to prepare technical advice and recommendations for PMC consideration related to education, training, research and human capacity development requirements in meteorology, climatology, hydrology, and oceanography. The focus is in particular on those requirements that will enable the Pacific Island Countries to benefit from improvements in the development and delivery of weather, climate, water, tsunami, marine and oceans information and services including alerts and warnings in the Pacific region.
4. With the facilities to be upgraded at FMS in collaboration with Japan International Cooperation Agency (JICA), instruments and personnel in place, FMS has the capability to calibrate several types of atmospheric pressure, temperature and humidity sensors. The calibration standard instruments are traceable to SI through the annual calibrations carried out on them by RIC Tsukuba (2015 and 2016) in Japan and RIC Melbourne (2017) in Australia. This supports our need in the Pacific to establish the traceability of our measurements and thus ensure credibility of our data.

5. The 2014 edition of the Guide to Meteorological Instruments and Methods of Observation, WMO-No 8 (2014), Part I, Chapter 1 "General", provides the guidance on RIC. Considering the need for regular calibration and maintenance of meteorological instruments to meet the increasing needs for high-quality meteorological and hydrological data, the need for building the hierarchy of the traceability of measurements to SI standards, Members' requirements for standardization of meteorological instruments, the need for international instrument comparisons and evaluations in support of worldwide data compatibility and homogeneity, the need for training instrument experts and the role played by Regional Instrument Centres (RICs) in the Global Earth Observing System of Systems, the Natural Disaster Prevention and Mitigation Programme and other WMO cross-cutting programmes.

### **Support**

6. JICA has been a very strong supporter to upgrade the facilities and instrument of FMS HQ in Nadi, assisting FMS with the Japan Meteorological Agency (JMA) in the provision of the training of FMS officers in Japan as well as funding and providing technical experts of RIC Tsukuba for the Regional calibration and instrumentation training in Nadi in 2015 and 2016. They have also donated the calibration and reference instruments to support this service.

### **FMS Capability**

7. With available facilities, instruments and personnel in place, and with required quality management system, Fiji Meteorological Service will have the necessary capacity and capability to host the RIC. Towards demonstration of their capabilities, FMS has already hosted two regional training events on instrument maintenance and calibration, and ensured traceability of own calibration standard instruments, through established partnership with JICA, RIC Tsukuba and RIC Melbourne.

### **Update:**

8. Since PMC3 the panel had a number of meetings to progress some of the key priorities of the panel including:
  - a. revised of its Term of Reference (attached as Annex A) to reflect the emerging priorities for education, training, research and human capacity development of NMHSs;
  - b. promoted the involvement of Pacific Islands and SIDS including NMHSs directors as authors of the IPCC Reports through the various fora;
  - c. sought support from potential partners to provide funding for the development of the Capacity Development Strategy. FMS, USP, WMO and SPREP to partner with UNDP through the RESPAC project to expedite this activity;
  - d. developed survey monkey on education, training and research support by each of the institutions. A final report and update will be provided in due course;
  - e. ongoing support for Media training through SPREP and partners including FINPAC, RESPAC and COSPPac.
9. An update on this matter has paved the way for in-country training on Aviation Observers; the formalising of partnership MOUs for co-ordination of training activities; short term training on coastal inundation, storm surge and tsunami; the development of HRD Plans; short-term training on Communications (Media and Public – Education/Awareness); the establishment and training of technician to support communications and infrastructure; the development of a regional policy for exchange of climate data between NMHSs and researchers and research institutions as well as the assistance rendered to NMHSs to review the national legislation and policy on data sharing.

**Recommendations:**

1. The Meeting is invited to:
  - **Note** progress made by the PIETR panel;
  - **Consider** Fiji Meteorological Services interest to host Regional Instrument Calibration Centre with basic capabilities and functions;
  - **Request** support from partners in the implementation of the Implementation Plan of the PIETR panel;
  - **Encourage** research and training institutes to complete the survey monkey on education, training and research prepared by SPREP;
  - **Invite** partners to support the development of the Capacity Development Strategy;
  - **Endorse** ToR of the PIETR Panel; and
  - **Endorse** Fiji Meteorological Service to pursue RIC proposal with the President and the Management Group of RA V in coordination with CIMO and relevant departments of WMO Secretariat and report to PMC-5.

---

**Attachments**

Att 1: Term of Reference for the Pacific Island Education, Training and Research Panel

Att 2: PIETR Implementation Plan

Att 3 Terms of reference for Regional Instrument Centre with basic Capabilities and function.