PACIFIC METEOROLOGICAL COUNCIL

Fourth Meeting of the ICG/PTWS Regional Working Group on Tsunami Warning and Mitigation System in the Southwest Pacific

COLLABORATION WITH OTHER BODIES

PACIFIC METEOROLOGICAL COUNCIL AND PACIFIC ISLANDS MARINE AND OCEAN SERVICES PANEL

PROTECT PACIFIC WHALES – OCEAN VOYAGERS

23 August 2016

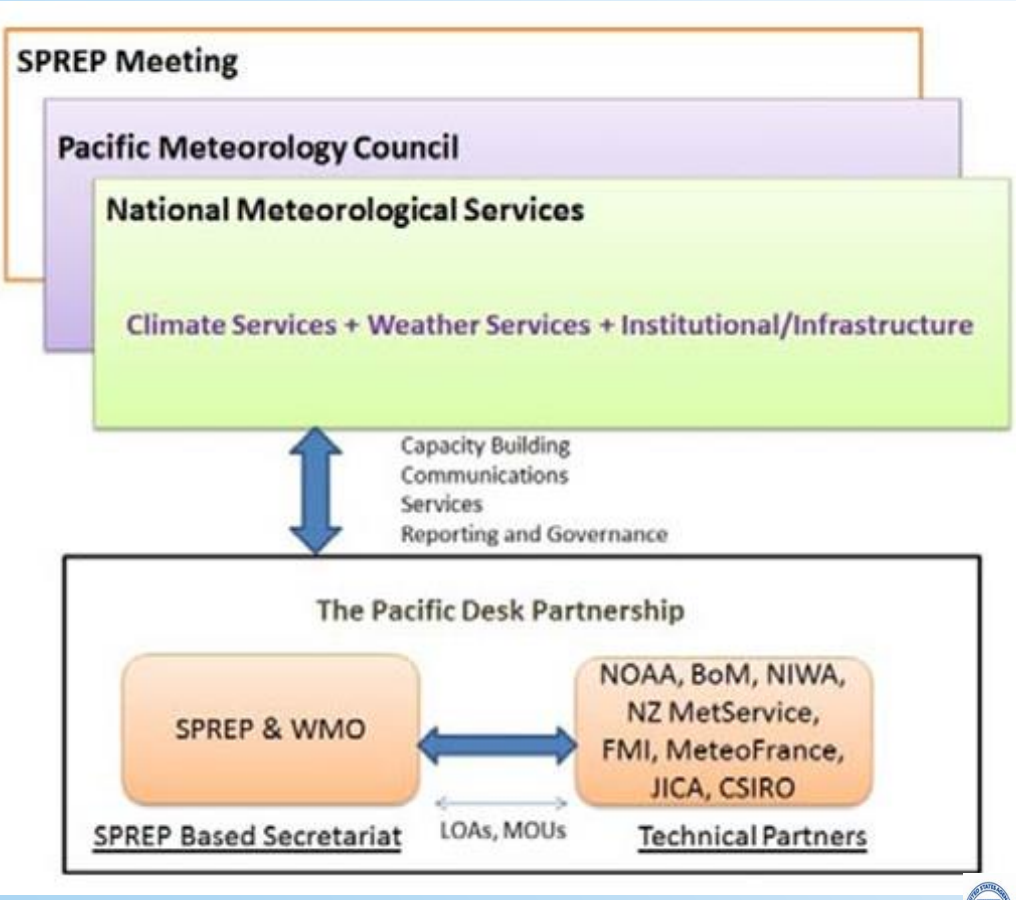
Honiara Hotel

Honiara, Solomon Islands

PI-GOOS
PACIFIC ISLAND GLOBAL OCEAN OBSERVING SYSTEM

SPREP
Secretariat of the Pacific Regional Environment Programme

Pacific Met Desk Partnership



INTERNATIONAL FEDERATION OF RED CROSS

WMO

USP PACIFIC CENTRE FOR ENVIRONMENT AND SUSTAINABLE DEVELOPMENT

NOAA NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION U.S. DEPARTMENT OF COMMERCE

Australian Government Bureau of Meteorology

KMA Korea Meteorological Administration

Met Office

CSIRO

COSPPAC

FORMIN.FINLAND.FI MINISTRY FOR FOREIGN AFFAIRS OF FINLAND

METEO FRANCE Toujours un temps d'avance

SPC Secretariat of the Pacific Community

FINNISH METEOROLOGICAL INSTITUTE

APCC APEC CLIMATE CENTER

PACCSAP Pacific-Australia Climate Change Science & Adaptation Planning Program

NATIONAL WEATHER SERVICE

NIWA Taihoro Nukurangi

MetService

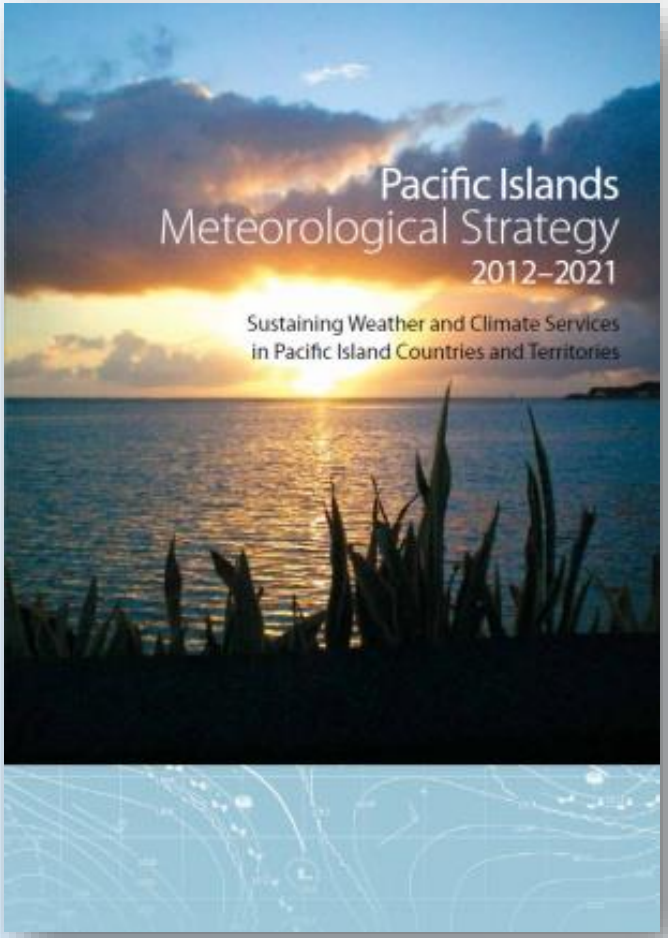
USAID FROM THE AMERICAN PEOPLE

EUMETSAT

European Union

Pacific Meteorological Strategy 2012-2021 guides the priorities of the region

- The PIMS has 14 Pacific Key Outcomes (PKO) that outline the main priorities highlighted by the NMSs.
- The implementation of each of the PKO's are further separated into (87) Pacific **National Priority Actions** and (68) Pacific **Regional Priority Actions** Under each of the PKO's
- Currently under mid-term Review



14 Pacific Priorities for NMSs

Priority 1, 2 and 3:

- Improved aviation, marine and public weather services

Priority 4:

- Improved end-to-end Multi-Hazard Early Warning Systems (MHEWS)

Priority 5:

Improved EWS Flood

Priority 6:

- Improved Climate information and prediction Services

Priority 7:

- Enhanced infrastructure (data and information services) for weather, climate and water

Priority 8:

- Preservation of Historical Data

Priority 9:

- Observations of Atmospheric Chemistry

Priority 10:

- Capable and effective NMSs

Priority 11:

- Education, training and Capacity development activities

Priority 12:

- Funding and resource mobilization

Priority 13:

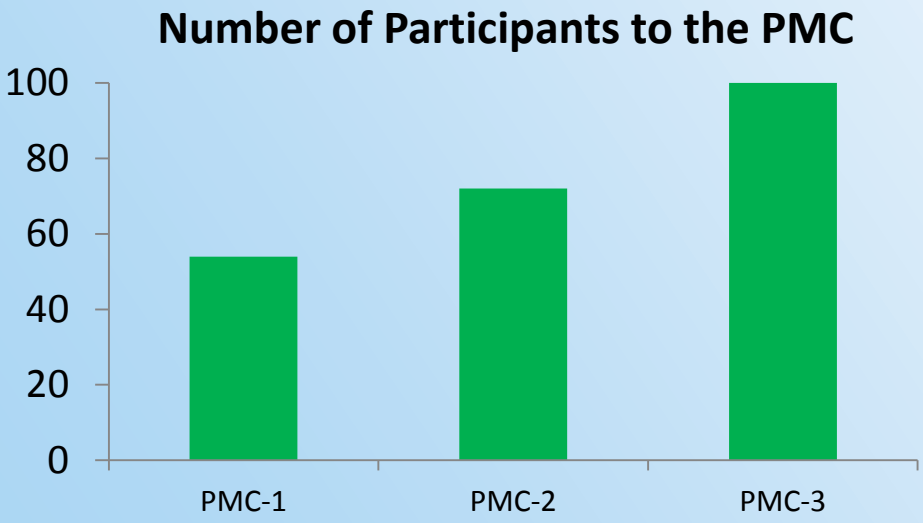
- Strategic Partnerships

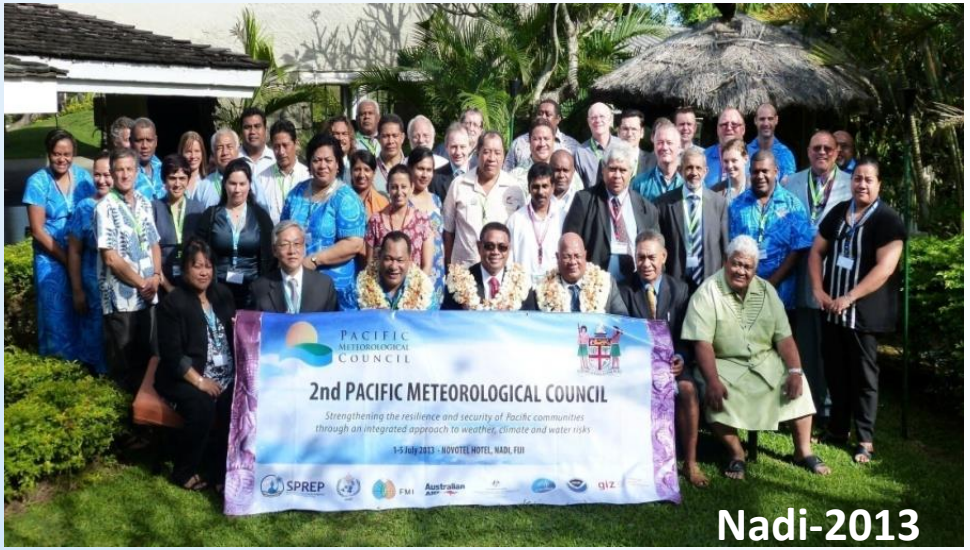
Priority 14:

- Effective and efficient PMC (with linkages to RA-V)

- Development of a Pacific Roadmap for Climate Services to be more inclusive of Sectors

1. The Pacific Meteorological Council (PMC)





2. Pacific Meteorological Council and the Ministerial Meeting on Meteorology

- First Pacific Ministerial Meeting on Meteorology (PMMM-1) held in Tonga in July 2015.
- **Endorsement of the Nuku'alofa Ministerial Declaration on sustainable weather and climate services for a resilient Pacific**

"Note that weather and climate services are not an option but are a responsibility and a basic human right"

Working Groups to Support the PMC

- Establishment of a Pacific Island Panel (Working group) on Aviation Services to deal with and advise with the implementation of Aviation weather Services (including looking at Quality Management and Cost Recovery)
- Establishment of a Pacific Island Panel (Working group) on Marine and Ocean services (including coastal inundation and tsunami)
- Formalised a Pacific Islands Panel of Education, Training and Research (including a call for a Regional Training Centre)
- Report from the Pacific Island Climate Services (PICS) Panel dealing with RCC, climate prediction

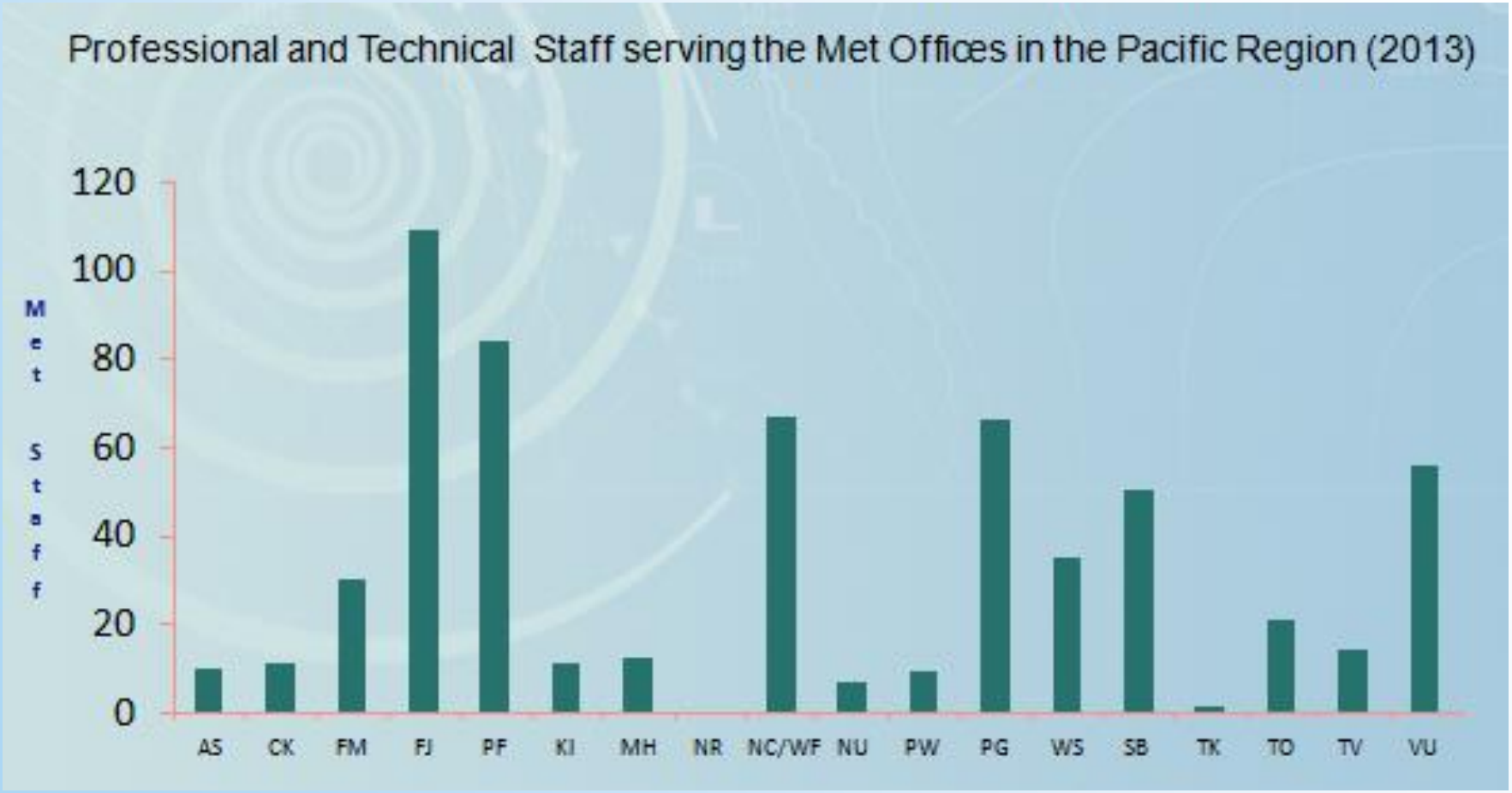
Pacific Islands Climate Services (PICS) Panel

- Establishment and support to the meetings of the Pacific Islands Climate Services (PICS) Panel.
- NIWA (NZ) is Chair and PNG is the Vice Chairman of the PICS Panel
- Members include (NOAA, BoM, NIWA, Meteo-France, SPREP, USP, SPC, WMO RA-V, PNG, Vanuatu, Niue, Palau, Samoa (Water), Tonga (Agriculture))

- 3 meetings to date and developed an Action Plan

First PICS Panel Meeting, August 2014 to Finalise its ToR and draft its Action

Capacity of the NMHSs in the Pacific



- Capacity Varies from country to country

PIMOS and the Pacific Islands Meteorological Strategy

- Pacific Key Outcomes
  - PKO 2: Marine weather services in the PICTs' region are improved
  - PKO 4: Multi-Hazard Early Warning Systems (MHEWS) for tropical cyclones, storm surges, waves and tsunami in the PICTs' region are implemented and improved
  - PKO 7: Improved quality of observations and coverage of networks in the Pacific Islands region

Cg-17

- Adopted Resolution on Competency Requirements for Marine Weather Forecasters
- JCOMM Marine Meteorology and Oceanography Programme contributions GFCS and tool development for PICTS in fisheries assessments and climate change
- MMOP – encouraged to sustain observation programmes, coordinate data interoperability\
- SIDS Program

WMO Strategic Operating Plan 2016-2019

"… weather, marine weather, climate and hydrological events…"

Marine Meteorology and Oceanography Program

- The MMOP coordinates, develops and recommends standards and procedures, for a fully integrated marine observing, data management and services system using state-of-the-art technologies and capabilities.
- The main long-term objectives of MMOP are:
  - To enhance the provision of marine meteorological and oceanographic services by Members in support of the safety of life and property at sea and in coastal areas;
  - To manage the evolution of an effective and efficient programme through the selective incorporation of advances in science and technology; and to work to ensure that all countries have the capacity to benefit from and contribute to these advances, and the implementation of the programme in general.

SIDS Program

- The programme pursues more targeted actions, such as capacity building to enhance and strengthen the capacities of Small Island Developing States and Member Island Territories National Meteorological and Hydrological Services and through the development and application of science-based climate information and services in support of decision making.
- …include natural hazards, climate change, sea-level rise, environmental degradation, agriculture, fishing and mariculture, freshwater resources, coastal zone management, transport by sea and air, energy and tourism.
- …to develop its own early warning system, which is scientifically sound and culturally sensitive.

PMC-3 Outcomes

- Approve the establishment of a Pacific Islands Marine and Ocean Services (PIMOS) Panel
- Request for volunteers and invite regional and international organisations to work with PMDP to develop a Terms of Reference (TOR) and a costed work plan for the new PMC's PIMOS Panel;
- Request WMO to consider supporting the PMC's PIMOS Panel through the Program for WMO SIDS and Member Island Territories, WMO Regional Program and WMO/UNESCO-IOC JCOMM;

PMC-3 Outcomes

- Request that PMC's PIMOS Panel to include **coastal hazard forecasting** and **early warning systems** in its TOR;
- Request that PMC's PIMOS Panel to include **Tsunami Early Warning System (TEWS)** in its TOR;
- Encourage the PMC's PIMOS Panel to **collaborate with UNESCO-IOC ICG/PTWS** for further improvement of **US NOAA PTWC enhanced products and their uptake by the PICTs**;

Nuku'alofa Ministerial Declaration

- **ENCOURAGE** our governments, regional organizations and development partners to establish and support the implementation of impact-based multi-hazard early warning systems (MHEWS) and Multi-Hazard Information Systems (MHIS);
- **RECOGNISE** that this region is also highly prone to tsunami with several countries having recently experienced locally generated tsunamis, requiring rapid detection and prompt dissemination of tsunami warnings to coastal communities and therefore the need to strengthen Early Warning Systems for this hazard;

PIMOS Meetings and ToR

- 2 MEETINGS: November 2015, May 2016

- PURPOSE: The purpose of the PIMOS Panel is to provide technical advice to the PMC on matters related to marine and ocean services, with an emphasis on oceanography and marine meteorology, to strengthen coastal multi-hazard early warning systems (Coastal MHEWS), national preparedness and maritime safety support mechanisms at the national and regional level, as prescribed in the Pacific Islands Meteorological Strategy and other international and regional frameworks such as the Sendai Framework for Disaster Risk Reduction 2015-2030 and the S.A.M.O.A Pathway.

- ROLES and RESPONSIBILTY: Support for national and regional tsunami monitoring, early warning systems, and standard operating procedures, and develop relevant awareness programs, including support for and coordination with the IOC/PTWS SW Pacific Working Group on Tsunamis Warning and Mitigation;

Second PIMOS Panel Meeting, IRD, New Caledonia (May 2016)

- Key Priority Areas:
  - Coastal Inundation and Hazards
  - Maritime Safety
  - Marine Meteorology and Climatology
- These activities are supported by:
  - Observations and data management
  - Forecasting
  - Climate Services
  - Communications and Capacity Building

Collaboration (PMC – PIMOS – PTWS)