



**PACIFIC**  
METEOROLOGICAL  
**COUNCIL**



WORLD  
METEOROLOGICAL  
ORGANIZATION



**SPREP**  
Secretariat of the Pacific Regional  
Environment Programme

“Science to Services for a Resilient Pacific”

## **Fifth Meeting of the Pacific Meteorological Council (PMC-5) Working Papers**

### **Fiji Meteorological Service Country Report**

#### **Reporting on National Priority Actions of the Pacific Islands Meteorological Strategy(PIMS) 2017 - 2026**

7-9 August 2019  
Apia  
Samoa

#### **Agenda Item 10.4: Fiji Meteorological Service Country Report**

##### **1.0 Purpose:**

The report is structured to allow the PMC secretariat to capture the Progress of Fiji against the 14 Pacific Key Outcomes (PKO's) of the Pacific Islands Meteorological Strategy (PIMS) 2017-2026 which will be under review at this meeting. This report will contribute to the following:

- i. monitoring the progress of Fiji against the implementation of the PIMS 2017-2026;
- ii. identify Fiji's gaps and needs, some of which will be packaged for projects and presented to the Donors and Partners,

##### **2.0 Background:**

###### **2.1 Summary:**

The Fiji Meteorological Service is part of the Ministry of Disaster Management and Meteorological Service(MDMMS). The Ministry of Disaster Management and Meteorological Service consist of 2 important departments in Government. These departments are the Fiji Meteorological Service and the National Disaster Management Office. This is to better integrate the services that support disaster preparedness, response and recovery to natural disasters. MDMMS is a relatively small ministry so it comes under the overall responsibility of the Ministry of Infrastructure and Transport.

In light of the above, the Ministry is formed to working seamlessly to coordinate emergency response operations in the aftermath of a disaster. This is to improve Fiji's resilience to natural disasters and other severe effects of climate change. Under the Meteorology Portfolio, the ministry

will provide timely and reliable weather, hydrology and climate information directly to the public to improve overall preparedness before a disaster strikes.

FMS manages its operations both the national and regional with had 151 staff and has re-organized its structure to cater for the changing scope of meteorology in light of International conventions of Paris Agreement, Sendai Framework for Disaster Risk Reduction and Sustainable Development Goals.

FMS will continue to pursue to finalize the SDP and cabinet approval of Meteorology and hydrology Act which is currently before the Parliament Standing Committee for Natural Resources. Once this achieved, FMS will revisit its vision, mission and objectives to align with the act.

Qualification for the staff shows that a majority of the staff in the forecasting Divisions holds the Basic Instruction Package for Meteorological Technician (QI) followed by Senior Observer Technician. All the forecaster have already completed the Meteorologist course (WMO class 1) and have undergone competency assessments.

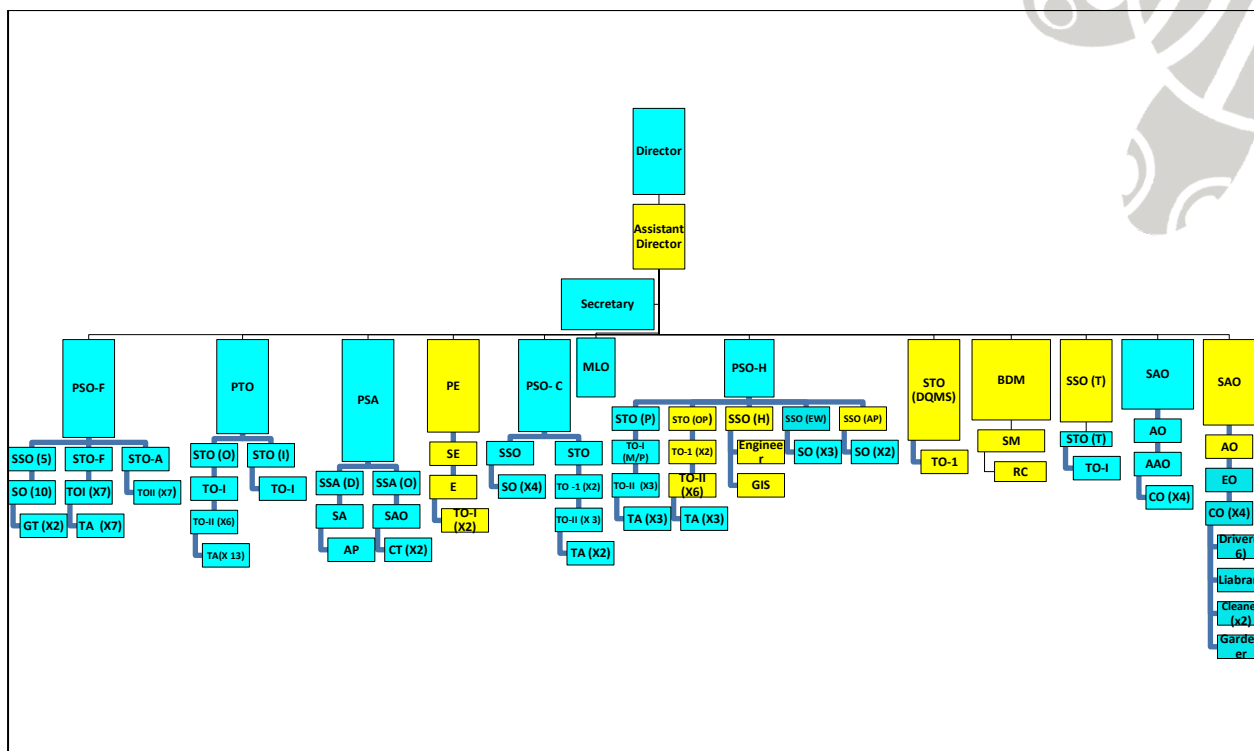
FMS has had an annual budget of over \$9 million dollars for the last few years and this has enabled FMS to continually improve on its services and deliverables. The vision is to become a world class organization.

I am happy to report that FMS has been provisionally certified by CAAF to be the Aviation Meteorological Service provider for air navigation and Climate Service is ISO 9001:2008 certified. FMS is on its journey to Marine services certification and its Public Weather service certified by 2021.

FMS recognizes its prosperity lies with the capacity and capability of their staff and will continue with capacity building initiatives within the FMS staff is one of main priority and further improve the quality of the product and service provided tour customers and the regional countries. In this regard, FMS will develop new training courses based on the needs of the region, explore the possibility of establishing the Regional Training Centre with collaboration with USP, WMO, SPREP and affiliated Universities. Furthermore, FMS will continually progress towards meeting the requirements of WMO to host regional Instrument Calibration in collaboration with the President and the Management Group of RA V in coordination with CIMO and relevant departments of WMO Secretariat.

## **2.2 Institutional Set-Up:**

FMS has a total of 151 positions, of which 20 are vacant. In spite of this, the work continues normal.



**2.3 Policy and Governance:**

Governance	Description
MET LEGISLATION: Update on whether or not your country have a stand-alone Meteorology Act or equivalent or is it part of other government’s legislations to guide the NMHS to perform its role and responsibility? Briefly describe it.	The draft Meteorology and Hydrology Act was submitted to our Permanent Secretary for onward submission to Cabinet last year but nothing has been finalized till todate.
Do you require for your Act to be reviewed? If it is already reviewed, what is the current status of your Act	The FMS Meteorological Act is currently being reviewed and is intended to be submitted to Cabinet towards the end of 2019.
Strategic Planning	
Describe how meteorology (weather) and climatology (climate variability and climate change) are featured in the current national development plan, government ministries corporate and implementation/operational plans.	Our core role and key priority is to address relevant thematic areas in the 2017 – 2021 National Development Plan (NDP). Therefore we will focus on minimising the negative impact of natural disasters and climate change to societies and communities through better quality weather forecasting, climate and hydrological services. This links with the RAV operating plan and WMO Strategic Plan. FMS is well positioned with WMO as a Pacific member on the Executive Council and focal point of IPCC.

Describe the process if your NMHSs is reporting against the SDG or its national equivalent.	The weather and climate cross cuts all sectors of economy and affects flora and fauna in multiple ways. Therefore, FMS contributes to all the SDG's in one way or the other and specifically to SDG 1,2,3,6.7.8.9.13, 14 and 15.
Does your NMHS have a strategic plan, implementation and operational plan or equivalent(s)?	A Strategic Development Plan(SDP) was developed through the funding of WMO in 2017 but is awaiting approval and further development as FMS is working together with its line Ministry to develop the overall SDP of Ministry.
Describe how meteorology (weather), climatology (climate variability and climate change), disaster management and early warning systems are feature in your NMHS strategic plan, implementation/operational plan or equivalent(s).	Our Strategic plan will align with the Ministry of Disaster Management and Meteorological Service and also align with the with the work and objectives of the Pacific Islands Meteorology Strategy (PIMS) 2012-2021 and proposed PIMS for 2017-2026 and it also align with the Fiji National Development Plan 2016-2022.

**2.4 Finance:**

Year	Operating	Capital	Total (Million)
2016/17	\$6,091.40m	\$5,376.30m	\$11,467.70m
2017/18	\$7,088.80m	\$3,465.50m	\$10,554.30m
2018/19	\$7,311.64m	\$2,533.03m	\$10,311.65m

**3.0 Update (2017-2019):**

This section elaborates on the work which FMS has done in the last 2 years which aligns with the thematic Priorities of PIMS.

<b>Priority 1: Improving Weather Services</b>	
PKO1:	<ul style="list-style-type: none"> <li>- FMS continues to develop its aviation services by continually maintaining its ISO 9001: 2011 certification,</li> <li>- FMS continues to faithfully fulfill its regional obligation(s) by providing Aviation products to the region in accordance to ICAO requirements,</li> <li>- Annually FMS sends out an Aviation questionnaire to key stakeholders in Fiji in relation to all the aviation products which it sends,</li> </ul>
PKO3:	FMS continues to faithfully fulfill its regional obligation(s) by providing public and marine weather services to the region.
<b>Priority 2: Disaster Risk Reduction</b>	
PKO4:	<ul style="list-style-type: none"> <li>- Fiji through the RSMC-Nadi continues to play its role in WMO RA V,</li> <li>- Since 2014, CIFDP-F has develop products for Fiji;- <ul style="list-style-type: none"> <li>- Incorporated the JMA Stormsurge model,</li> <li>- SPC Wave model for Coastal inundation along the Coral Coast of Fiji.</li> </ul> </li> </ul>

<b>Priority 3: Improve Climate and Hydrological Services</b>	
PKO6:	- 2018: Development of the Fiji Implementation for Climate Services, pending cabinet approval.
PKO7:	- Annually, the Hydrology Division of FMS installs 5 new rainfall and waterlevel gauges along major rivers in Fiji,  - Since late 2018: FMS has been working on data retrieval for populating the Fiji Flood Forecasting Guidance System

<b>Priority 4: Intergrated Observing and Communication System</b>	
PKO8:	- Annually, FMS spends approximately FJ\$250K to ungrade and maintain its out island synoptic stations. - WIGOS: We are working on OSCAR/Surface. - FMS has registered on using Common Alerting Protocol(CAPs) Editor

<b>Priority 5: Coordinated Support for NMHSs and PMC</b>	
PKO9:	- Through the JICA 4 Year Project on Reinforcing Meteorological Training, FMS has been able to train officers from the region on the following areas;- <ul style="list-style-type: none"> <li>- Maintenance and Calibration of Meteorological Instruments(regionally),</li> <li>- Training for Aerodrome Weather Reporting(specifically for Christmas Island),</li> <li>- Basic Observation Refresher(in-house at Cook Islands),</li> <li>- Installation Met Instruments WMO/ICAO(Nauru)</li> </ul> <p>FMS has also hosted a lot of On-the-job Training(OJT) for member countries from the region. Some of them are;-</p> <ul style="list-style-type: none"> <li>- Climate Data(Kiribati and Tuvalu),</li> <li>- Terminal Aerodrome Forecast (Samoa and Tonga).</li> </ul> <p>FMS also recognises the valuable contribution of the Pacific Help Desk in Hawaii in training some of our technical officers.</p>
PKO10	- Through the funding of the RESPAC Project, FMS has;- <ul style="list-style-type: none"> <li>- Purchase and installed few AWS in Fiji,</li> <li>- Purchase some forecasting software's,</li> </ul> <p>CIFDP-F has develop products for Fiji;-</p> <ul style="list-style-type: none"> <li>- Incorporated the JMA Stormsurge model,</li> <li>- Wave model for Coastal inundation along the Coral Coast of Fiji,</li> <li>- River flooding along the Nadi River.</li> </ul> <p>- FMS through the JICA 4 Year Project on Reinforcing Meteorological Training Function has been able to train a lot of officers from the region on various Meteorological training</p>
PK11	- FMS continually contributes its experts to the various panels in the PMC  - FMS also works towards building gender equality in the workplace. - In 2017, FMS had 22 female staff which is <b>18.9%</b> - In 2019, female numbers has increased to 33( <b>25.3%</b> ) This is an increase of <b>5.4%</b> in 2 years

**4.0 WorkPlan (2019-2021):**

<b>Priority 1: Improving Weather Services</b>		<b>Year</b>
PKO1:	<b>QMS ISO 9001: 2015</b> - FMS continues to develop its aviation services and its working towards upgrading its ISO compliance to ISO 9001: 2015.	2019
	FMS will extend this ISO certification to all its Output division	2020-2021
	<b>Upgrading Forecasting System</b> - Through the funding of RESPAC Project, FMS is procuring the IBL forecasting system for dissemination of its products. The IBL software system is compatible to the ICAO IWXXM which comes into effect in 2020	Late 2019 or early 2020.
	<b>Cost Recovery</b> FMS together with strategic stakeholders will work towards Implementing a Cost recovery for its Aviation services	2020 - 2021
	<b>Bi-lateral Agreement</b> FMS is working towards formalising Bi-lateral agreements with countries to which it issues Products. This is not limited to only aviation products. It extends to ALL the products which FMS which disseminates to the individual countries. This will be undertaken on an individual country to country basis.	2019 - 2020
	<b>Installation of AWOS at Nadi International Airport</b> FMS together with Fiji Airports Limited(FAL) are currently installing 4 Automatic Weather Observing Systems(AWOS). This instruments once operational will provide real time threshold winds to the all inbound and outbound airlines.	Late 2019 – early 2020
PKO2:	<b>WMO Competency for Marine Weather Service</b> FMS aims at developing Competency toolkits for its Marine weather forecasters	2021

<b>Priority 2: Disaster Risk Reduction</b>		<b>Year</b>
PKO4:	<b>Implementation of Multi-hazard Early Warning System(MHEWS)</b> - Operationalising the FFGS and overlay the risk areas to the bulletin. FMS is working closely with the National Disaster Management Office on this area.	2020-2021
	- Risk and hazard mapping for riverine and catchment areas in Fiji	2021
	- Hydrological Drought modelling	2021
	- FMS aims at having a MHEWS Platform	2021
PKO5:	<b>IPCC and Conference of the Parties(COP) Meeting</b> FMS contributes to national policies by providing Climatic projections on forecasted future scenarios in Fiji	Annually

<b>Priority 3: Improved Climate and Hydrological Services</b>		<b>Year</b>
PKO6:	<b>Implementation of “Development of the Fiji Implementation for Climate Services”</b> - FMS will convene a National Climate Forum(NCOF). This is support through the RESPAC Project. - Operationalising the FFGS and overlay the risk areas to the bulletin	Later 2019 Later 2019
PKO7:	<b>Risk and hazard mapping for riverine and catchment areas in Fiji</b> - Through the development of FFGS, FMS would be able to provide catchment area forecasting for areas which are under threat of flooding. It would also enable FMS to provide specific warning and advisories for sector based and area bound flood prone areas.	2021
	<b>Collaboration with other hydrology related stakeholders</b> FMS will continue to collaborate with Water Authority of Fiji(WAF) and other Ministries that have a joint interest in the Hydrology sector	2021

<b>Priority 4: Integrated Observing and Communication System</b>		<b>Year</b>
PKO8:	<b>Implementation of ICAO Meteorological Information Exchange Model(IWXXM)</b> FMS through the RESPAC Project will purchase the IBL Forecasting System. IBL system is compliant with the ICAO mandatory requirement for IWXXM.  FMS also aware and will build towards System Wide Information Management(SWIM)	Late 2019 to early 2020.  2021 and beyond.

<b>Priority 5: Coordinated Support for NMHSs and PMC</b>		<b>Year</b>
PKO9	<b>Regional Instrument Centre(RIC)</b> FMS will continue to liase with our counterpart at Japan for the strengthening of the RIC at FMS. This would involve adding right instruments and recruiting more personal to carry out the role	2020 - 2021
	<b>Establishment of the Regional Training Centre(RTC) in Fiji</b> FMS support the recommendation on the establishment of the RTC in Fiji. FMS will work closely with relevant stakeholders on the establishment and strengthening of the RTC	2021
PKO10	<b>Donor Interaction</b> FMS and willing donors to continue working on identified tasks until completion	2019 - 2021
PKO11	<b>Gender Equality</b> FMS through the Fiji Government Policy will recruit based on “Open and Meritorious Recruitment System”	2019 - 2021



**Recommendations:**

The Meeting is invited to:

- **Note** the contents of the Fiji Meteorological Service Country report,
  - **Recognise** the work carried out by Fiji Meteorological Service through the core funding and support of the Fiji Government,
  - **Acknowledge** the wonderful work carried out by Donor agencies which has allows for FMS to efficiently carry out its important services,
  - **Recommend** that member countries read through this report and adopt some good practices which they think they can adopt,
  - **Request** PMC to note the work plan highlighted in this paper,
  - **Urge** the member countries to work together with Fiji Meteorological Service in addressing items identified in the work plan of this report.
-