Agenda Item 18.2

Pacific Regional Training Centre

Ravind Kumar (FMS)

and

Prof. Elisabeth Holland (USP)

SPREP
Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

PACIFIC METEOROLOGICAL COUNCIL

Objective

- This discussion paper provides information on the progress made on exploring a possibility to establish a WMO Regional Training Centre (RTC).

Background Information

- The members of the PMC 3 requested the Education, Training and Research Panel of the PMC to work with PICTs' NMHSs, USP, SPREP, SPC and other regional organizations, and WMO to address the education and training needs of NMHSs in PICTs with a possibility of establishing a WMO Regional Training Centre (RTC) and to support the development of regional research capacity.

FMS Capability

- Currently Fiji Meteorological Services (FMS) has two staff members devoted to deliver specialised training for FMS and PMC members.

- Given the training demands over the last two years and enhanced FMS capability, FMS has created a Senior Scientific Officer position to deliver science based training.

- As a result, FMS is now in a better position to deliver the needs of a RTC.

FMS Capability

- FMS has been delivering the Basic Observer Training certificate IV level since 1960s and Basic Instruction Package for Meteorological Technician (BIP-MT) training from 2013.

- FMS has also been delivering a variety of regional training programs in collaboration with WMO, JICA, USP, SPREP, SPC, UNDP, NIWA, etc.

FMS Capability

FMS has the capability to deliver the following:

- 1. Package for Meteorological Technicians including Hydrology (BIP-MT)
- 2. Refresher short Courses for Meteorologist
- 3. Competency Assessments for BIP-MT and BIP-M
- 4. Tropical Meteorology and Climatology (in-General)

USP Capability

USP has the following capacity:

• Post-graduate degrees in climate and related science, including PGdip, and research based MSc and PhD degrees.

• TVET qualifications for resilience professionals including climate adaptation, disaster management, and sustainable energy.

USP Capability

USP has the following capacity:

- Tropical Meteorology: a 14 week on-line post graduate course with a strong emphasis on basic coding in Python, an open source software and an orientation to CLIVAR. The course meets BIP-M standards. The course has been offered annually since 2013.

- Climate Science a 14 week long on-line post graduate course with a strong emphasis on quantitative skills, and connecting policy and science. The course has been offered annually since 2013.

USP Capability

- Advanced Physical Oceanography, a 14 week on-line post graduate course with a strong emphasis on basic coding in Python, open source software; exploration and application of remote sensing tools. The course will be offered for the first time in 2018.
- USP offers a variety of undergraduate courses that support quantitative skill development required from BIP-M including climatology and environmental physics.(refer to Annex X course offerings mapped for BiP-M standards.

- Post-graduate and TVET courses in project management, climate finance, and multi-lateral reporting.

SPREP
Secretariat of the Pacific Regional Environment Programme
WORLD METEOROLOGICAL ORGANIZATION
PACIFIC METEOROLOGICAL COUNCIL

USP Capability

- In addition to the afore-mentioned coruses to meeti specific WMO and ICAO needs including the BIP-M standardsPost graduate courses inpProject management and climate finance access training.

- Relevant coursework requested by FMS and Met services.

Recommendations

1. Note the contents of the paper; and

2. Endorse FMS and USP to continue exploring the possibility of establishment of Pacific RTC, pursue with the President and management Group of RAV in coordination with relevant departments of WMO Secretariat, fast track assessment of the requirements and report to PMC-5.

Agenda 18.3:

Impacts of Climate Change for the Pacific According to the Latest Findings of the IPCC and Future Priorities of the IPCC

Joy Jacqueline Pereira

Vice Chair, Working Group 2

Intergovernmental Panel on Climate Change (IPCC)

SPREP
Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

PACIFIC METEOROLOGICAL COUNCIL

Objective

To inform the PMC on the **Impacts of Climate Change in the Pacific** according to the latest findings of the IPCC and **Future IPCC Priorities** through a presentation at the Ministerial segment, to enhance engagement from the Pacific in the IPCC process.

SPREP
Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

PACIFIC METEOROLOGICAL COUNCIL

FAR SAR TAR AR4 AR5 SR1.5 MR AR6

IPCC – jointly established by **WMO and UNEP**

UNFCCC

Kyoto Protocol

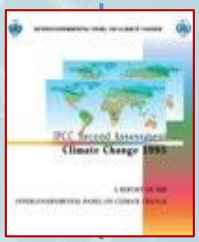
Adaptation

2 °C limit

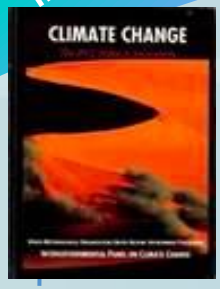
Paris Agreement

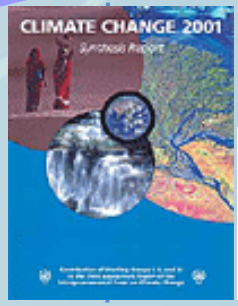
SROCC
SR2

UNFCCC Global Stocktake

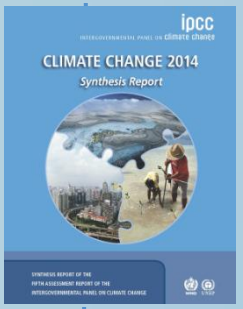


Science of climate change (peer-reviewed literature)
Growing public awareness
Involvement of various actors





Nobel Peace Prize



1988 1995 2007 2018 2019 2023

1970s-1980s 1990 2001 2013/2014 2016-2022

SPREP
Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

PACIFIC METEOROLOGICAL COUNCIL

Achievements: The Assessment Reports

FAR (1990)	led to	UNFCCC
SAR (1995)	input for	Kyoto Protocol
TAR (2001)	focused attention on	Impacts of climate change and need for adaptation
AR4 (2007)	input for	Decision on 2ºC limit; basis for post Kyoto Protocol agreement
AR5 (2013/2014)	input for	Paris Agreement

SPREP
Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

PACIFIC METEOROLOGICAL COUNCIL

Small Islands

IPCC-AR5

Coordinating Lead Authors:
Leonard A. Nurse (Barbados), Roger F. McLean (Australia)

Lead Authors:
John Agard (Trinidad and Tobago), Lino Pascal Briguglio (Malta), Virginie Duvat-Magnan (France), Natalua Pelesikoti (Samoa), Emma Tompkins (UK), Arthur Webb (Fiji)

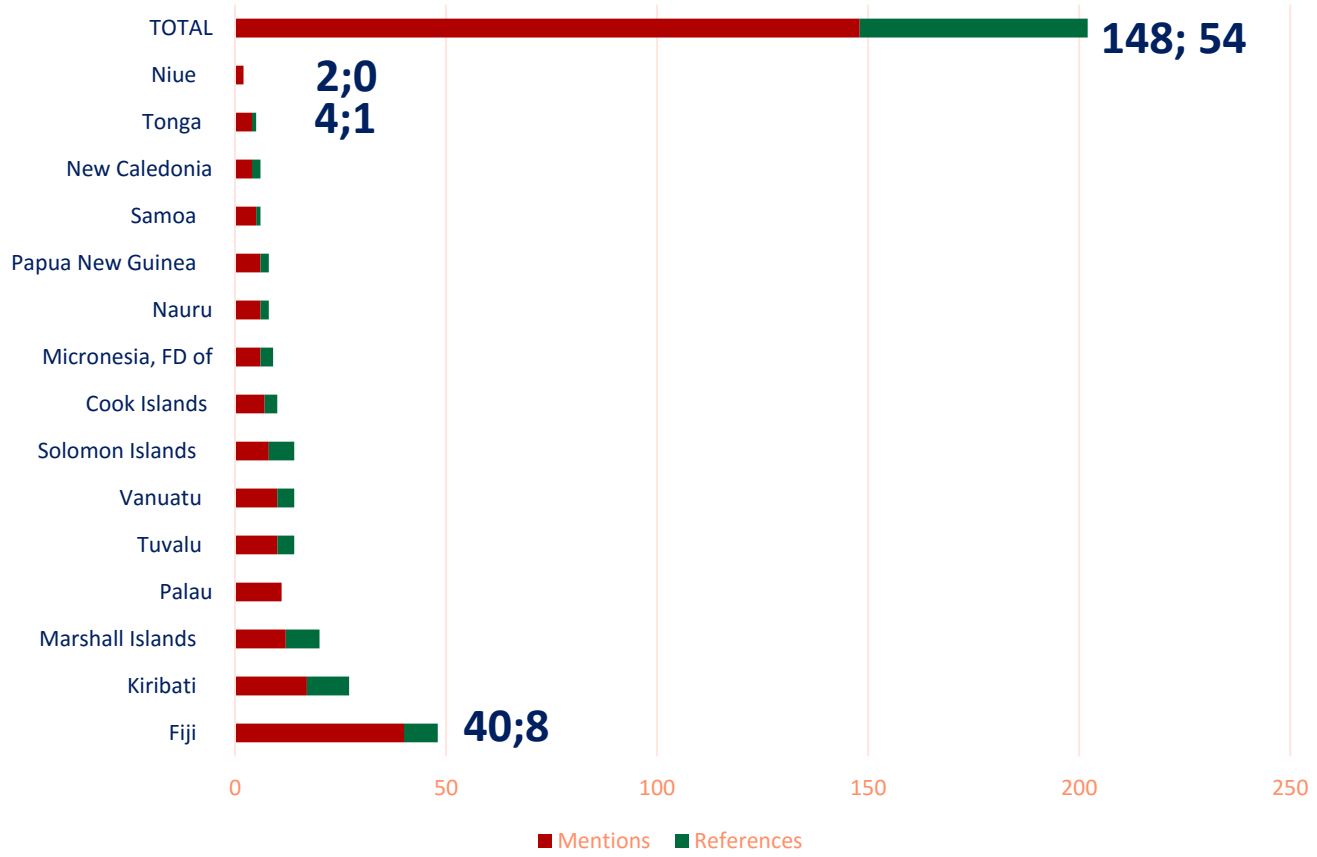
Contributing Authors:
John Campbell (New Zealand), Dave Chadee (Trinidad and Tobago), Shobha Maharaj (Trinidad and Tobago), Veronique Morin (Canada), Geert Jan van Oldenborgh (Netherlands), Rolph Payet (Seychelles), Daniel Scott (Canada)

Review Editors:
Thomas Spencer (UK), Kazuya Yasuhara (Japan)

Volunteer Chapter Scientist:
Veronique Morin (Canada)




No. of Mentions & References - Chapter 29 IPCC-WG2-AR5



SPREP Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

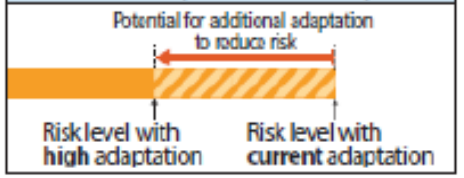
PACIFIC METEOROLOGICAL COUNCIL

Table 29-4 | Selected key risks and potential for adaptation for small islands from the present day to the long term.

Climate-related drivers of impacts

Warming trend | Extreme temperature | Drying trend | Extreme precipitation | Damaging cyclone | Sea level | Ocean acidification | Sea surface temperature

Level of risk & potential for adaptation



Key risk	Adaptation issues & prospects	Climatic drivers	Timeframe	Risk & potential for adaptation
Loss of livelihoods, coastal settlements, infrastructure, ecosystem services, and economic stability (*high confidence*) [29.6, 29.8, Figure 29-4]	• Significant potential exists for adaptation in islands, but additional external resources and technologies will enhance response. • Maintenance and enhancement of ecosystem functions and services and of water and food security • Efficacy of traditional community coping strategies is expected to be substantially reduced in the future.		Present Near term (2030–2040) Long term (2080–2100) 2°C / 4°C	Very low – Medium – Very high
Decline and possible loss of coral reef ecosystems in small islands through thermal stress (*high confidence*) [29.3.1.2]	Limited coral reef adaptation responses; however, minimizing the negative impact of anthrogopenic stresses (ie: water quality change, destructive fishing practices) may increase resilience.		Present Near term (2030–2040) Long term (2080–2100) 2°C / 4°C	Very low – Medium – Very high
The interaction of rising global mean sea level in the 21st century with high-water-level events will threaten low-lying coastal areas (*high confidence*) [29.4, Table 29-1; WGI AR5 13.5, Table 13.5]	• High ratio of coastal area to land mass will make adaptation a significant financial and resource challenge for islands. • Adaptation options include maintenance and restoration of coastal landforms and ecosystems, improved management of soils and freshwater resources, and appropriate building codes and settlement patterns.		Present Near term (2030–2040) Long term (2080–2100) 2°C / 4°C	Very low – Medium – Very high

- **Top Ten Countries with Absolute Exposure**
- **Top Ten Countries with Relative Exposure (% of population) – Niue (25%); Fiji (23%); Samoa (21%); New Caledonia (21%); Vanuatu (18%); Tonga (18%); Cook Islands (10%) [Total=7]**

PACIFIC METEOROLOGICAL COUNCIL

Update

Sixth Assessment Cycle of the IPCC (AR6)

Special Reports

Global Warming of 1.5 °C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty
September 2018

UNFCCC Cop 23 **Facilitative dialogue**

Special Report on the Ocean and Cryosphere in a Changing Climate
September 2019

Special Report on Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems
September 2019

Methodology Report update

2019 Refinement to the 2006 IPCC Guidelines for National Greenhous Gas Inventories
May 2019

AR6 Main Report

Working Group I, II, and III contribution to the Sixth Assessment Report in **2021**
Synthesis Report to the Sixth Assessment Report **April 2022**

UNFCCC global stocktake 2023

Cities

Attention on **cities** in AR6 including a conference and special report on cities in AR7

SPREP
Secretariat of the Pacific Regional Environment Programme

How the IPCC produces its reports?

Scoping

The outline is drafted and developed by experts nominated by governments and observer organizations.

Approval of Outline

The Panel then approves the outline.

Nomination of authors

Governments and observer organizations nominate experts as authors.

Government and Expert Review - 2nd Order Draft

The 2nd draft of the report and 1st draft of the SPM is reviewed by governments and experts.

Expert Review - 1st Order Draft

Authors prepare a 1st draft which is reviewed by experts.

Selection of authors

Bureaux select authors.

Final draft report and SPM

Authors prepare final drafts of the report and SPM which are sent to governments.

Government review of final draft SPM

Governments review the final draft SPM in preparation for its approval.

Approval & acceptance of report

Working Group/Panel approves SPMs and accepts reports.

Publication of report

Getting involved

1 Contribute to existing literature

IPCC assessments are as good as the literature available. Look out for the various cut off dates for literature for the different reports.

2 As Authors or Review Editors

Bureaux selects Authors and Review Editors from lists of nominations provided by governments and observer organizations. Look out for the calls for nomination of authors and contact your IPCC Focal Point if you are interested in being nominated.

3 As Expert Reviewers

To be involved at the the two review stages; Expert Review of the First Order Draft and Government and Expert Review of the Second Order Draft.

SPREP Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

PACIFIC METEOROLOGICAL COUNCIL

How could the IPCC work better for you?

Work with IPCC Focal Points from your country

Each IPCC Member country has a National Focal Point (NFP) which has been identified by the relevant authorities in the country. You can find their details on the IPCC website: www.ipcc.ch

Become an Observer Organization to the IPCC

Any non-profit body or agency, whether national or international, governmental or intergovernmental may be admitted as an observer organization (subject to acceptance by the Panel). See the "IPCC Policy and Process for Admitting Observer Organizations": www.ipcc.ch

Participate in IPCC Sessions

Participation of Government representatives in IPCC sessions ensures that your country's voice is heard (nomination is by NFP). Representatives of observer organizations may also attend.
Contact: ipcc-sec@wmo.int

Organize and Participate in Outreach Events

Outreach events create awareness about the work of the IPCC and its findings and are carefully tailored to the specific regional, national and stakeholders' needs.
Contact: ipcc-media@wmo.int

ipcc
INTERGOVERNMENTAL PANEL ON climate change

WMO UNEP

Recommendations

- **Note** that during the Sixth Assessment Cycle, the IPCC will produce three Special Reports, a Methodology Report and the Sixth Assessment Report (AR6);
- **Note** that the IPCC through Fiji Focal has sent an invitation to Government of Fiji to host the First Lead Author meeting for the IPCC Special Report on Oceans and Cryosphere. Upon Fiji's confirmation, the meeting will be held in Nadi, Fiji 2-6 October, 2017.
- **Encourage** participation of PMC National Focal Points or their nominees and Pacific observer organizations in IPCC processes meetings held twice a year.
- **Encourage** the National Focal Points of the IPCC to enhance engagement of their research institutions, universities and key researchers in the IPCC process;
- **Encourage** the nomination of National Focal Points to the IPCC for those countries that do not have one already.
- **Encourage** participation in the Pacific IPCC outreach event to be held at USP on 7 October, 2017 and broadcast to the USP regional campuses.
- **Encourage** National Focal Points and Pacific observer organizations to nominate Pacific representatives to serve as CLAs, LAs and REs for the IPCC AR6 cycle before the 2017 deadline (Oct/early November, 2017).

SPREP
Secretariat of the Pacific Regional Environment Programme

WORLD METEOROLOGICAL ORGANIZATION

PACIFIC METEOROLOGICAL COUNCIL