# Report on the 3rd meeting of the Pacific Islands Climate Services (PICS) Panel

VMGD, Port Vila, Vanuatu, 21–23 March 2016

Meeting attendees (back row from left): *Henry Taiki, Philip Malsale, Mafutaga Leiofi, Salesa Nihmei, Jens Kruger, Sunny Seuseu and* (front row from left): *Samuel Mahia, Andrew Tait, Netatua Pelesikoti and Janita Pahalad.*

# Contents

# 1. Introduction

The first meeting of the PICS Panel in Nadi, Fiji, in August 2014 brought together selected experts on climate services and other social and economic development sectors, as well as relevant partners and practitioners supporting and/or using climate services, in the Pacific region. Its purpose was to develop an Action Plan, and agree on a short-list of Priority Actions.

The following Priority Actions for the PICS Panel were drawn from the Action Plan:

| | **Priority Actions** | **Timeline** | **PICS Panel task leader** |
|---|---|---|---|
| 1 | Plan for and hold the first Pacific Islands Regional Climate Outlook Forum (RCOF) including a water resources sector focus | October 2015 | Janita Pahalad |
| 2 | Conduct a gap analysis based on what climate services are currently being provided and the minimum set of services that are needed | Dec 2014 | Andrew Tait |
| 3 | Review the structure, maintenance and use of the SPREP regional projects database and report to PMC | July 2015 | John Marra |
| 4 | Draft an RA-V RCC-Network Implementation Plan, to be submitted to the RA-V Management Group (meeting at the WMO Congress) | May 2015 | Andrew Tait |
| 5 | Review international standards on qualifications and competencies for climate services production and delivery and potential adaptation of them for the Pacific Region | October 2015 | Elisabeth Holland |

# 2. Objectives of the 3rd PICS Panel Meeting

The objectives of the third Meeting of the PICS Panel were to:

- Provide an update on the progress of the Priority Actions;
- Discuss options for the RCC, review the RCC Implementation Plan and discuss the way forward;
- Document initial lessons from Kiribati and PNG to inform the sustainability of NCOFs;
- Discuss the challenges and requirements from the sectors;
- Confirm a second PICOF Panel Meeting and the sector(s) involved;
- Review the Action Plan and update the Key Priority Activities;
- Discuss progress on the Pacific Roadmap for Climate Services;
- Provide updates on the Compendium of Good Climate Services and the Pacific Climate Change Centre;
- Review the ToR, discuss the PICS Panel website, and elect the Chairman and Vice-Chairman.

# 3. Expected Outcomes of the 3rd PICS Panel Meeting

- PICS Panel Key Priority Activities updated;
- Dates and sectors for PICOF-2 are finalized;
- Agreement on PI RCC structure and ways forward to implement RCC in the Pacific region is achieved;
- The structure of the Pacific Roadmap for Climate Services is developed.

# 4. Meeting Agenda

See Appendix 1 for the 3nd PICS Panel Meeting Agenda prepared by SPREP in consultation with other PICS Panel members.

# 5. Terms of Reference for the PICS Panel

See Appendix 2 for the revised ToR for the PICS Panel, as agreed upon at the 3rd PICS Panel meeting. The following revisions were made:

- 3.1 f Removed text: "and the Pacific Islands Climate Services Forum (PICSF) and Centres of Action (CoA)".
- 3.1 g Added text: "climate and multi-hazard early warning"
- 3.1 h Added text: "Coordination of activities with other PMC panels, such as the PIMOS and PIETR panels".
- Membership: Added 1 more PMC member country (New Caledonia); added 1 more sector organisation (Tonga Ministry of Agriculture); and added 1 more regional organisation (MeteoFrance).

**ACTION**: Salesa Nihmei and Andrew Tait will write a letter of invitation to the proposed new members of the PICS Panel.

# 6. Minutes of the 3rd PICS Panel Meeting

## Meeting Attendees

| | | |
|---|---|---|
| Janita Pahalad, BOM | Salesa Nihmei, SPREP | Netatua Pelesikoti, SPREP |
| Andrew Tait, NIWA | Samuel Mahia, PNG Met | Henry Taiki, WMO |
| Sunny Seuseu, SPREP | Jens Kruger, SPC | Philip Malsale, VMGD |
| Mafutaga Leiofi, MNRE Samoa | | |

## Session 1: Opening & Updates

(i) *Opening Prayer*

The PNG Met Director, Samuel Mahia opened the PICS Panel Meeting with a prayer.

(ii) *Welcoming and opening remarks*

Welcoming and opening remarks were made by Philip Malsale (VMGD), Netatua Pelesikoti (SPREP) and Andrew Tait (NIWA).

(iii) *Updates*

Andrew Tait gave an update on work done so far toward achieving the PICS Panel priority actions. The PICOF, gap analysis, and projects database review have been completed. The RCC work is progressing (see summary of Sessions 2 and 3). Work on reviewing qualifications and competencies is mostly being done by a WMO Expert Team; and any further work on this will be handled by the newly-formed PIETR-Panel.

Netatua Pelesikoti gave a summary of the recommendations from PMC-3. This included the formation of the PIETR-Panel and PIMOS-Panel; the need for Multi-Hazard Early Warning; a stress on Gender issues; the upcoming PIMS review; and the need for a Pacific Roadmap for Climate Services.

## Session 2: Updates from Regional Meetings

(i) *ET-RCC and TT-RCOF meeting updates*

Janita Pahalad summarised the outcomes of these WMO meetings. Of most relevance was that the ET-RCC is updating the RCC guidance document, mostly regarding the "Highly Recommended Functions". The updated document will be completed in the next 12 months or so.

(ii) *RA-V Working Group on Climate Services (WG-CLS) meeting update*

Andrew Tait gave a summary of the RA-V WG-CLS planning meeting and its planned activities. The following activities are of relevance to the PICS Panel:

| Action | Facilitator | Deadline |
|---|---|---|
| **5: Draft a concept note on a potential RA V Workshop on Climate Early Warning in 2017** | Mr Tait | 30 June 16 |
| **7: Draft a three to five years roadmap for the further evolution of RA V RCOFs** | TT-CSIS (Mr Marra) | 31 Oct 16 |
| **8: Facilitate RA V RCC implementation** | TT-CSIS (Messrs Marra, Tait, Gordon) | 30 June 2017 |
| **12: Draft a paper on NCOF practices and experiences** | TT-AIF (Ms Juanillo) | 30 June 17 |

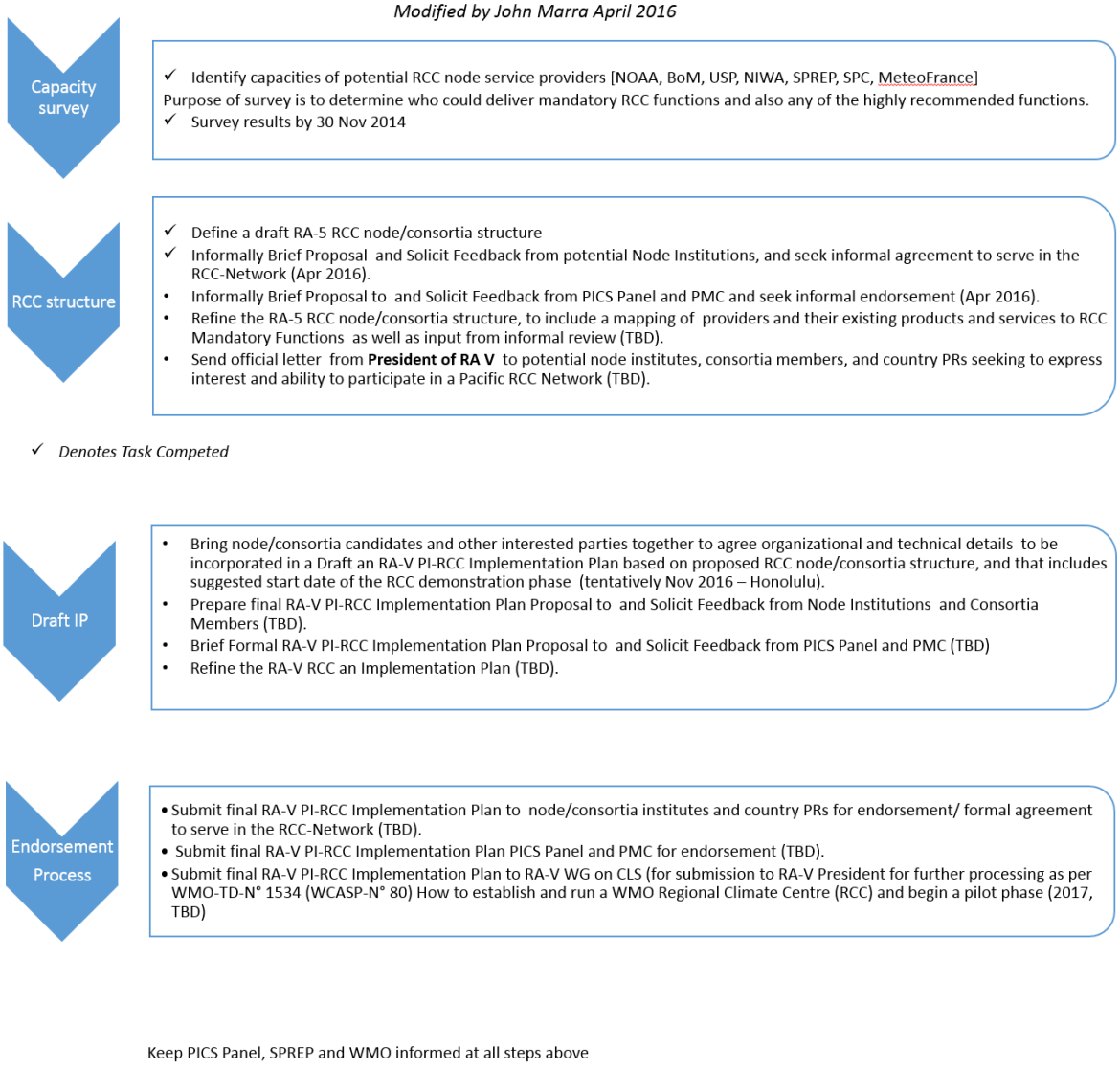
The following flowchart of RCC actions, which was updated after the WG-CLS meeting, was presented for the PICS Panel to review:

# WMO RA-V Pacific Islands RCC Network Implementation

## Flowchart of **PICS Panel Actions**

Andrew Tait

*Modified by John Marra April 2016*




The PICS panel reviewed the actions in the above flowchart, and agreed that all the steps have been correctly described.

## Session 3: Regional Climate Centre (RCC)

(i) *Finalise options for the RCC Implementation Plan*

Andrew Tait presented on the proposed RCC-Network structure for the Pacific Islands region. This structure has been iterated several times, based on discussions mostly at and between BoM, NOAA and NIWA. See Appendix 3 for a description of the functions of an RCC.

Each "Mandatory Function" (MF) and "Highly Recommended Function" (HRF) has either one or two partner organisations that will act as the *node leaders*, as well as other organisations that will belong to the *node consortia*. The proposed structure is:

| | |
|---|---|
| **MF1: Long-range forecasting** | *Node leaders:* NIWA and BoM |
| | *Node consortia:* NOAA, MeteoFrance and SPREP |
| **MF2: Climate monitoring** | *Node leaders:* NOAA and University of Hawaii |
| | *Node consortia:* BoM, MeteoFrance, NIWA and SPC |
| **MF3: Data services** | *Node leaders:* BoM and SPREP |
| | *Node consortia:* NOAA, NIWA, MeteoFrance and NZ MetService |
| **MF4: Training** | *Node leaders:* USP and SPREP |
| | *Node consortia:* BoM, NIWA, SPC, MeteoFrance, University of PNG and NOAA |
| **HRF1: Climate change projections** | *Node leader:* CSIRO |
| | *Node consortia:* BoM, SPREP, NIWA, SPC, MeteoFrance and NOAA |
| **HRF2: Non-operational data services** | Same as MF3 |
| **HRF3: Coordination functions** | *Node leader:* SPREP |
| | *Node consortia:* USP, SPC, WMO and IFRC |
| **HRF4: Training and capacity building** | Same as MF4 |
| **HR5: Research and development** | Same as HRF1 |

**ACTION**: Andrew Tait will write a letter to the Chair of the PMC describing this proposed RCC structure, and ask for PMC endorsement (in principle).

## Session 4: National Climate Outlook Forums (NCOFs)

(i) *Lessons Learnt and Sustainability of NCOFs in PNG and Kiribati*

Samuel Mahia presented a summary of the two NCOFs that have been held in PNG, and Henry Taiki and Sunny Seuseu presented on the two NCOFs that have been held in Kiribati. For PNG, a report has been written, including a list of recommendations, and sent to WMO. One of the main issues was the lack of continuity regarding the participants attending the NCOFs. The next NCOF is scheduled for May 2016.

For Kiribati, there were significant challenges getting people to attend the NCOFs (one of which was held in Tarawa and the other on Christmas Island).

(ii) *Summary of recent NCOF in Vanuatu*

Philip Malsale gave a summary of the recent NCOF in Port Vila. This was a very successful event, which had around 60 people attend. A focus was on the current El Niño and the potential development of a La Niña. Discussion also centred on the Vanuatu Climate Update, and how it could be made more sector-specific. There was also discussion on a "Community VCU", which would have less technical and more visual information, and a lot of discussion on information dissemination and communication of key messages.

**ACTION**: Andrew Tait will lead an assessment of NCOFs held so far in the region and produce a summary of lessons learned.

(iii) *Review of PICOF-1 and Discussion on PICOF-2*
The PICOF-1 meeting held in Suva, Fiji on 12-16 Oct 2015 was discussed. It was agreed that it was very useful to have the presentations from the providers, plus all the countries present on how they are currently producing their national climate outlooks, including their primary sources of information. It was also useful for water resources representatives to present on how they are currently using this information. What was less useful, was the preparation of a regional statement on ENSO and the potential impacts. This is because to be useful, such a statement needs to be quite geographically-specific, and this is (and should be) the responsibility of the NMHSs to provide such guidance at a national level.

Discussion then turned to the focus of PICOF-2. After much debate, it was agreed that it would be useful to focus on the DRR and Health sectors. A tentative date of the third week of October 2016 was agreed, with a likely location of Nadi, Fiji (supported by FMS).

Further discussion ensued on whether available WMO funds, currently earmarked for PICOF-2, could be more effectively used in 2016 to support a regional workshop to produce a Pacific Islands Climate Services Roadmap (see notes from Session 6 below).

**ACTION**: Andrew Tait and Salesa Nihmei will start work on a PICOF-2 concept note and draft agenda.

## Session 5: Sector Engagement in Using Climate Services

(i) *Challenges of sectors in using climate information*
Jens Kruger gave a presentation on behalf of Molly Powers, on the following challenges (see Appendix 4):

- Translating technical information
- Limitations of climate predictions
- Conflicting traditional belief systems
- Limited capacity
- Channel management
- Developing relationships with other sectors

(ii) *What Sectors Require for Better Engagement*
Mafutaga Leiofi and Sunny Seuseu gave an update on the relationship between the Water Resources and Meteorological Divisions of MNRE, Samoa. This is based on a "top-down" approach of policy development and MoAs. Work is ongoing to develop a drought policy and action plan, to be approved by cabinet this year.

Discussing this approach, it was thought that it would be extremely valuable to document the "Samoa model" as a PICS Panel report.

**ACTION**: Sunny Seuseu and Mafutaga Leiofi to draft a PICS Panel report on the "Samoan Approach of Developing Climate Services for Water Resources Management"

## Session 6: Climate Services Roadmap and Compendium

(i) *Regional Roadmap for Climate Services*

Andrew Tait presented the "roadmap" he drafted for the PICS Panel, and from which he produced the presentation at the PMC-3 meeting (see Appendix 5).

After extensive discussion it was decided that what is needed is a much broader outward-facing roadmap which encompasses climate, weather and marine services as well as the needs of sectors. Janita Pahalad then presented what has been produced for the COSPPac programme, which is based on the "Theory of Change". It was agreed that this kind of model would be the basis for the Pacific Roadmap for Strengthening Climate Services.

Jens Kruger then also described some examples of how workshops can be run to elicit the information that will feed into the roadmap. Following this discussion, it was decided that such a regional workshop should be held asap.

**ACTION**: SPREP will further develop the framework of the roadmap, based on the example from COSPPac. SPREP and WMO will discuss the feasibility of running a regional workshop on the Pacific Roadmap for Strengthening Climate Services. Specifically, regarding financial support for the workshop, the discussion will include whether the funding currently earmarked for PICOF-2 could be used for this other purpose.

(ii) *Compendium of Good Examples of Climate Services*

Salesa Nihmei gave a report on the FINPAC-funded write-shop, and the resulting "compendium". This is currently being edited by a science editor and is due to be published in July 2016.

**ACTION**: Salesa Nihmei will send Andrew Tait the compendium stories for science review by the PICS Panel.

## Session 7: Functions of the Pacific Climate Change Centre

Netatua Pelesikoti gave a summary of the plans for the PCCC. Construction on the new building will start in the end of 2016 and be completed in late 2017. The Centre will be a training facility for NMHSs in the use of climate change tools and data, downscaling, scenarios, comms, project development, etc. It will not replace other training facilities, e.g. at USP. There will be the possibilities for attachments for in-depth training. There will be space for visiting scientists. The ultimate goal of the Centre is to build capacity of PI NMHSs, particularly with respect to climate change adaptation and response planning.

## Session 8: PICS Panel Action Plan

The Action Plan was reviewed and it was agreed that there are still several actions in the plan that are relevant. Hence, it is not necessary at the present time to renew the Action Plan.

## Session 9: PICS Panel Priority Actions

The Priority Actions for 2016/17 have been revised as follows:

| | **Priority Actions** | **Timeline** | **PICS Panel task leader** |
|---|---|---|---|

| | | | |
|---|---|---|---|
| 1 | Plan for and hold either the second Pacific Islands Climate Outlook Forum (PICOF-2) including a disaster management/health sector focus or a regional workshop on the Roadmap for Strengthening Climate Services (depending on funding) | October 2016 | BoM, SPREP |
| 2 | Write a PICS Panel report on the "Samoan Approach of Developing Climate Services for Water Resources Management" | December 2016 | SPREP, Samoa MNRE |
| 3 | Assess NCOFs held so far in the region and produce a summary of lessons learned | March 2017 | NIWA, SPREP |
| 4 | Assess the need for RCOFs in the Pacific Islands region, based on a survey of participants | June 2017 | BoM |
| 5 | Work with WMO RA-V WG CLS to draft an RA-V RCC-Network Implementation Plan, to be submitted to the RA-V Management Group | June 2017 | NIWA, NOAA |
| 6 | Assess and document the status of CLEWS and MHEWS in the region | June 2017 | NIWA, NOAA |

A discussion was also held regarding a PICS Panel webpage, to be hosted by SPREP. This will go ahead, along with a webpage for the PMC.

**ACTION**: Sunny Seuseu and Andrew Tait will work on the PICS Panel webpage.

## Session 10: Governance

The PICS Panel ToR was reviewed and revised (see Appendix 2).

Netatua Pelesikoti asked Andrew Tait and Samuel Mahia to stand again as chair and vice-chair of the PICS Panel, respectively. They both agreed and were unanimously voted in.

The meeting was closed at mid-day on Wednesday 23 March, 2016.

# Appendix 1: Meeting Agenda

PACIFIC METEOROLOGICAL COUNCIL

Pacific Islands Climate Services (PICS) Panel

## Third PICS Panel Meeting

21-23 March 2016

VMDG Conference Room, Port Vila VANUATU

OBJECTIVES OF THE MEETING:

1. Update on the Progress of the Key Priority Activities
2. Discuss Options for the RCC, review the RCC Implementation Plan and discuss the way forward
3. Document Initial Lessons from Kiribati and PNG to inform the sustainability of NCOFs,
4. Understanding the challenges and requirements from the sectors
5. Confirmation of a second PICOF Panel Meeting and the partnerships
6. Update of the Action Plans and Priority Activities
7. Election of Chairman and Vice-Chairman

AGENDA

**Day 1: Monday, 21 March 2016**

| Time | Activity | Details | Comments | Lead |
|---|---|---|---|---|
| 08:30 - 08:45 | **Opening** | Opening Prayer (VMGD)<br><br>Welcome Remarks (SPREP, PICS Panel Chair) | Opening of the meeting.<br><br>Neta and Andrew | VMGD To facilitate |
| 08:45-9:15 | **Updates** | Updates from the last PICS Panel meeting in May 2015 | Brief summary of activities carried out so far | Andrew Tait (NIWA) |
| 09:15 - 10:00 | **Updates** | PMC-3 and the Nuku'alofa Declaration | Discuss the recommendations from the PMC-3 and the Nuku'alofa Declaration | Netatua Pelesikoti (SPREP) |
| 10:00 - 10:30 | **Morning Tea (Group Photo)** | | | |
| 10:30 - | **Updates from** | ET-RCC and TT-RCOF | Presentation and discussion | Janita |

| | | | | |
|---|---|---|---|---|
| 12:30 | **Regional Meetings** | meeting that was held in Melbourne in Sept 2015<br><br>RA-V WG-CLS planning meeting held in Singapore in February 2016<br><br>Options for establishing a RCC-Network in the Pacific region | on the outcomes of the ET-RCC and the TT-RCOF meetings.<br><br>Presentation and discussion on the RCC-related outcomes of the planning meeting.<br><br>Group Discussions on Options for establishing the RCC | Pahalad, (BoM)<br><br>Andrew Tait (NIWA)<br><br>Andrew Tait (NIWA) |
| 12:30 - 13:30 | **Lunch** | | | |
| 13:30 - 15:00 | **Regional Climate Centre (RCC)** | Finalise Options for the RCC and Implementation Plan and the Way Forward | Finalise the plans and discussion on a way forward | Andrew Tait (NIWA) |
| 15:00 - 15:30 | **Afternoon Tea** | | | |
| 15:30 - 16:30 | **NCOF** | Lessons Learnt and Sustainability of NCOF in PNG, Kiribati<br><br>Communications and engagement with Stakeholders in Vanuatu | Presentations and discussions will be centered around the lessons learnt and how NCOF can be sustained by NMSs<br><br>Presentation and discussion on how the NMSs are engaging with sectors and challenges they face | Sam Maiha (PNG NWS) Henry Taiki (WMO)<br><br>Philip Malsale (VMGD) |
| 16:30-17:30 | **PICOF** | Review of the PICOF-1 and how it can be improved<br><br>Discussion on a Potential second PICOF | Discussions on how the PICOF can be improved to ensure sustainability<br><br>Venue, hosting arrangements, theme (sector), | Sunny Seuseu and Salesa Nihmei (SPREP) |
| 17:30 | **END** | | | |
| | | | | |

**Day 2: Tuesday, 22 March 2016**

| Time | Activity | Details | Comments | Lead |
|---|---|---|---|---|
| 08:30-10:00: | **Sector Engagement in using Climate Services** | The challenges of Sectors in using the current Climate Information<br><br>What the Sectors require for better engagement | Discuss the challenges and what is required from the NMS to better engage the sectors<br><br>Capacity of the Sectors and how they are applying climate information | Jens Kruger (SPC)<br><br>Mafutaga Leiofi (MNRE) |
| 10:00 - | **Morning Tea** | | | |

| | | | | |
|---|---|---|---|---|
| 10:30 | | | | |
| 10:30 - 12:00 | **Regional Climate Road Map** | Regional implementation Roadmap on Climate Services | Discuss the current roadmap and how it can be expanded to reach out to other (GFCS) sectors | Andrew Tait (NIWA) |
| 12:00 - 13:00 | **Case Studies** | Compendium of Good Climate Services | Report on the Write-shop in Nadi and the role of the PICS Panel members | Salesa Nihmei (SPREP |
| 13:00 - 14:00 | **Lunch** | | | |
| 14:00 - 14:30 | **PCCC** | Functions of the Pacific Climate Change Centre (PCCC) | Present the progress of the PCCC and the potential functions of the centre | Netatua Pelesikoti (SPREP) |
| 14:30 - 15:00 | **RTC** | Updates | Update on the establishment of the Regional Training Centre | USP |
| 15:00 - 15:30 | **Afternoon Tea** | | | |
| 15:30 - 17:30 | **PICS Panel Action Plan** | Updating the Action Plan | Everyone will look in detail at the Action Plan and revise and update. | Andrew Tait (NIWA) |
| 17:30 | **END** | | | |
| | | | | |

**Day 3: Wednesday, 23 March 2016 (WMO DAY)**

| Time | Activity | Details | Comments | Lead |
|---|---|---|---|---|
| 08:30-09:30 | **PICS Panel Priority Activities** | Updating the Priority Activities | Everyone will look in detail at the Priority Activities and revise and update. | Andrew Tait (NIWA) |
| 09:30 - 10:00 | **PICS Panel website** | Development of a PICS Panel website | Discussion about the elements to be included in the website, plus hosting and updating | Sunny Seuseu (SPREP) |
| 10:00 - 10:30 | **Morning Tea** | | | |
| 10:30 - 12:00 | Governance | Reviewing the PICS Panel ToR<br><br>Election of Chair and Vice-Chair | | Andrew Tait (NIWA)<br><br>Netatua Pelesikoti (SPREP) |
| 12:00 - 13:00 | **Lunch** | | | |
| 13:00 | END | | | |
| | | | | |

## Appendix 2: Revised Terms of Reference

# Pacific Islands Climate Services Panel
# Terms of Reference

## 1. Introduction

1.1 The Pacific Island Climate Services Panel (PICS Panel) was endorsed by the Second Meeting of the Pacific Meteorological Council (PMC-2) to serve in the capacity of an advisory committee to the Pacific Meteorological Council (PMC) on climate services matters in the Pacific region (https://www.sprep.org/attachments/Publications/PMC-2_Meeting_Report.pdf).

## 2. Purpose

2.1. The purpose of the PICS Panel is to provide technical advice to the PMC on matters related to the implementation of GFCS and the strengthening and coordinating of climate services at the community, national and regional levels.

## 3. Role of the PICS Panel

3.1. The role of the PICS Panel, in consultation with other partners is to provide technical advice to the PMC on the following:

- The strengthening, coordination, continuity and integration of current and future programmes, projects and initiatives that support climate services at the community, national and regional levels.

- The strengthening of the basic and core functions and capabilities of National Meteorological and Hydrological Services (NMHSs) for robust and sustained data collection and management, analysis of data and quality assurance, production and dissemination of products, research and modeling.

- The enhancement of avenues and modes of multi-way communication and feedback between climate services providers and users to enhance the uptake and use of relevant and tailored climate services down to the communities and individuals.

- The implementation of climates services-related priority activities outlined in the Pacific Island Meteorological Strategy (PIMS) 2012-2021.

- The development, implementation and monitoring of a PICS Panel Action Plan based on the draft "Pacific Regional Implementation Roadmap for Strengthened Climate Services".

- The implementation of climates services-related priority activities consistent with those of the RA V.

- The review of regional Climate Services needs and capabilities in the areas of:
    - climate predictions (seasonal and sub-seasonal) and projections,
    - climate and multi-hazard early warning,
    - data services,
    - research and development,
    - coordination,
    - training,
    - implementation of GFCS including Regional Climate Centres (RCC), Regional Climate Outlook Forums (RCOFs) and National Climate Outlook Forums (NCOFs).

- Coordination of activities with other PMC panels, such as the PIMOS and PIETR panels.

- The regular reporting to the PMC members on the progress of the PICS Panel.

## 4. Membership

4.1. The PICS Panel membership will comprise of the climate services community of practice. There will be a core membership of a minimum of eight to a maximum of twelve, but at the same time it remains open-ended to allow for the PMC members to volunteer their experts to participate in the PICS Panel activities and for the PICS Panel to invite experts either from its PMC members or its partners or climate users to its meetings and discussions. The core membership of the Panel will comprise of:

a) Roving 5 member Representatives of the PMC to be selected by PMC.

b) 1 member from the WMO RA V Working Group on Climate Services, 6 members in total from regional organisations and institutions supporting climate observations, research, forecasting, operational services, information management and capacity building in the Pacific region.

c) 2 representatives from the climate services user community from a national agencies and to be selected by PMC.

d) 1 representative of the World Meteorological Organisation.

4.2. The current core membership of the PICS Panel is given in Annex 1.

4.3. The PICS Panel will appoint its Chair, and if necessary a vice-Chair.

4.4. The PICS Panel may invite experts either from its PMC members or its partners or climate users to its meetings and discussions.

4.5. The PICS Panel may establish Task Team(s) to carry out specific time bound task(s) for limited time period.

4.6. Meetings of the PICS Panel shall be coordinated and convened by the Chair, with the support of Pacific Meteorological Desk Partnership (PMDP).

## 5. Review and Approval of Terms of Reference

5.1. The PICS Panel may revise its TOR where necessary.

5.2. The PMC to consider and approve amendments to the PICS Panel TOR including its core membership.

# Annex 1: PICS Panel Core Members

| Representatives | Number | Institutions |
|---|---|---|
| Roving 4 member Representatives of the PMC to be selected by PMC | 5 | Niue, Palau, Vanuatu, Papua New Guinea, New Caledonia |
| Member of RA V Working Group on Climate Services | 1 | NIWA |
| Members from regional organisations and institutions supporting climate observations, research, forecasting, operational services, information management and capacity building in the Pacific region. | 6 | NOAA, BoM, SPC, USP, SPREP, MeteoFrance |
| Representatives from the climate services user community from a national agencies and to be selected by PMC | 2 | Samoa Water Resources Division, Tonga Ministry of Agriculture |
| Representative of the World Meteorological Organisation | 1 | WMO |

## Appendix 3: RCC functions

| ***MF1: Operational Activities for Long-Range Forecasts (LRFs)*** |
|---|
| Interpret and assess relevant LRF products from Global Producing Centres (GPCs), distribute relevant information to RCC Users; and provide feedback to GPCs |
| Generate regional and sub-regional tailored products, relevant to RCC User needs, including seasonal outlooks etc. |
| Generate consensus statement on regional or sub-regional forecasts |
| Perform verification of RCC quantitative LRF products, including the exchange of basic forecasts and hindcast data |
| Provide on-line access to RCC products/services to RCC Users |
| Assess use of RCC products and services through feedback from RCC Users |

| ***MF2: Operational Activities for Climate Monitoring*** |
|---|
| Perform climate diagnostics including analysis of climate variability and extremes, at regional and sub-regional scales |
| Establish an historical reference climatology for the region and/or sub-regions |
| Implement a Regional Climate Watch |

| ***MF3: Operational Data Services, to support operational LRF and climate monitoring*** |
|---|
| Develop quality controlled regional climate datasets, gridded where applicable |
| Provide climate database and archiving services, at the request of NMHSs |

| ***MF4: Training in the use of operational RCC products and services*** |
|---|
| Provide information on methodologies and product specifications for mandatory RCC products, and provide guidance on their use |
| Coordinate training for RCC Users in interpretation and use of mandatory RCC products |

| ***HR1: Climate Prediction and Climate Projection*** |
|---|
| Assist RCC Users in the access and use of WCRP-CMIP climate model simulations |
| Perform downscaling of climate change scenarios |
| Provide information to RCC Users for use in development of climate adaptation strategies |
| Generate, along with warnings of caution on accuracy, seasonal forecasts for specific parameters where relevant, such as: onset, intensity and cessation of rainy season; tropical cyclone frequency and intensity |

| |
|---|
| Perform verification on consensus statements for forecasts; |
| Perform assessment of other GPC products such as SSTs, winds, etc |

| ***HR2: Non-operational data services*** |
|---|
| Keep abreast of activities and documentation related to WMO WIS, and work towards WIS compliance and DCPC designation; |
| Assist NMHSs in the rescue of climate data from outmoded storage media; |
| Assist NMHSs to develop and maintain historical climate datasets; |
| Assist RCC Users in the development and maintenance of software modules for standard applications; |
| Advise RCC Users on data quality management; |
| Conduct data homogenization, and advise RCC Users on homogeneity assessment and development and use of homogeneous data sets; |
| Develop and manage databases, and generate indices, of climate extremes; |
| Perform QA/QC on national datasets, on request of an NMHS; |
| Provide expertise on interpolation techniques; |
| Facilitate data/metadata exchange amongst NMHSs, including on-line access, through an agreed regional mechanism; |
| Perform QA/QC on regional datasets |

| ***HR3: Coordination Functions*** |
|---|
| Strengthen collaboration between NMHSs on related observing, communication and computing networks including data collection and exchange; |

| |
|---|
| Develop systems to facilitate harmonisation and assistance in the use of LRF products and other climate services; |
| Assist NMHSs in user liaison, including the organisation of climate and of multidisciplinary workshops and other forums on user needs; |
| Assist NMHSs in the development of a media and public awareness strategy on climate service |

| ***HR4: Training and Capacity building*** |
|---|
| Assist NMHSs in the training of users on the application and on implications of LRF products on users; |
| Assist in the introduction of appropriate decision models for end-users, especially as related to probability forecasts; |
| Promote technical capacity building on NMHS level (e.g. acquisition of hardware, software, etc.), as required for implementation of climate services. |
| Assist in professional capacity building (training) of climate experts for generating user-targeted products |

| ***HR5: Research and Development*** |
|---|
| Develop a climate Research and Development agenda and coordinate it with other relevant RCCs; |
| Promote studies of regional climate variability and change, predictability and impact in the Region; |
| Develop consensus practices to handle divergent climate information for the Region; |
| Develop and validate regional models, methods of downscaling and interpretation of global output products; |

| |
|---|
| Promote the use of proxy climate data in long-term analyses of climate variability and change; |
| Promote application research, and assist in the specification and development of sector specific products; |
| Promote studies of the economic value of climate information |

## Appendix 4: Challenges of Sectors Using Climate Information

### Challenge #1: Translating Technical Information

**Lessons Learned:**

- A forecast is not successful if it is not understood
- Simplify wherever possible
- Audience-appropriate messages (test)
- Educate audiences (e.g. El Niño)
- Define technical words
- Create local glossaries/dictionaries
- Impact forecasting
- Stakeholder consultations/trainings

### Challenge #2: Limitations of Climate Predictions

**Lessons Learned:**

- Forecasts are only as good as the data and model
- Stakeholder consultations/trainings
- Educate audiences
- 'Paying for Predictions' Game helps
- Define terms e.g. "likelihood" "above normal"
- People want forecast specific to their locations- more rainfall data is needed

## Challenge #3: Conflicting Traditional Beliefs Systems

**Lessons Learned:**

- Do not assume scientific knowledge
- Be respectful of traditional beliefs and align with science where possible
- Traditional indicators (flowering fruits, mating seasons) can reinforce scientific climate indicators
- Engage Council of Churches, religious leaders, school teachers and other community leaders
- Educate audiences at all levels

## Challenge #4: Limited Capacity

**Lessons Learned:**

- Information management and data quality is limited by infrastructural/technical capacity
- Effectiveness of service is limited by staff capacity
- Access to tools and technology can also improve service delivery
- Not only technical but soft skills capacity building is necessary (comms, stakeholder engagement)

## Challenge #5: Channel Management

**Lessons Learned:**

- Know which channels (TV, radio, paper) are most effective to reach your audiences
- Don't overlook social media (particularly for youth)
- Build relationships with your local media managers
- Media training for staff who are regularly interviewed
- Organise quarterly briefings or trainings to build mutual understanding
- Develop a media or comms strategy- know your key messages and reinforce them at every opportunity

## Challenge #6: Developing relationships with other sectors

**Lessons Learned:**

- Reach out to sectoral stakeholders- survey, email, phone call, drop-in visit, networking lunches
- Attend their meetings, understand their needs
- Create forums for easy, frequent feedback
- Develop MOUs/formalise relationships when data is involved
- Can't be 100% driven by Met- other sectors may need a push to see how climate info can help them
- Show them other regional success stories

## Appendix 5: Roadmap presentation (given at PMC-3)

Pacific Islands Climate Services (PICS) Panel

# A Roadmap for Strengthened Climate Services in the Pacific Region

Drafted at the
Regional Consultation on the Global Framework for Climate Services in Pacific Small Island Developing States, in Rarotonga, Cook Islands, April 2014.

## Overarching Themes of the Roadmap

1. Improve coordination, continuity and integration of projects, programmes and initiatives that support climate services at national, regional and global levels
2. Strengthen the basic core functions and capabilities of NMHSs for robust and sustained data collection and management, analysis of data and quality assurance, production and dissemination of products, research and modelling
3. Enhance avenues and modes of multi-way communication and feedback between climate services providers and users to enhance the uptake and use of relevant and tailored climate services down to the communities and individuals

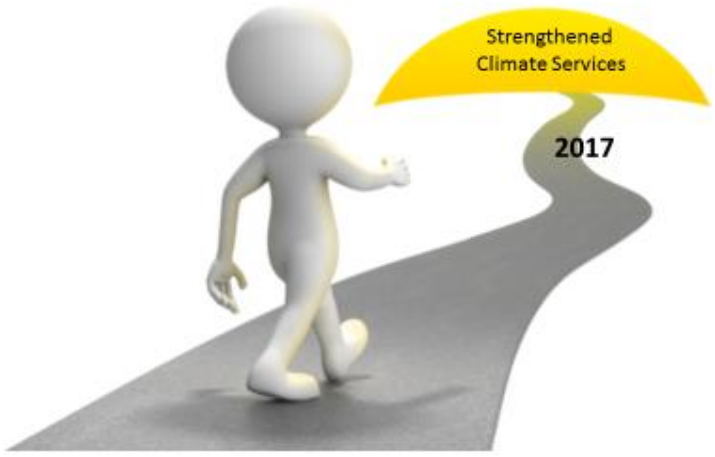
## Pacific Roadmap


- Establish Pacific Islands Climate Services (PICS) Panel ✓
- Develop Action Plan ✓
- Climate services gaps and needs analysis ✓
- PCCP regional projects database review ✓
- Review PIMS, RA-V Strategic and Operational Plans, and PICS Panel Action Plan ✓
- 1st PI Climate Outlook Forum (water sector focus: Fiji, Oct 2015)

## Pacific Roadmap


- Continue work on Implementation Plan of a PI Regional Climate Centre (RCC)
- Begin RCC demonstration phase
- Review pilot NCOFs (PNG, Kiribati, Tonga) and produce best practice guidance
- Review national projects databases (e.g. Vanuatu)
- Review standards on qualifications and competencies for climate services production and delivery
- 2nd PICOF (Ag sector?)

# Pacific Roadmap




- Continue RCC demonstration phase
- Develop a standardised climate product suite
- Evaluate climate services user interface platforms
- Review regional and national climate services comms plans
- Review regional climate impacts databases (e.g. Caribbean)
- Establish a Regional Training Centre (RTC)
- 3rd PICOF (Health sector?)