Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 196 Summary Report

Date: Thursday 18 January 2024

Time: Australian Eastern Standard Time at 11:00AM (01:00 UTC)

Host: Australian Bureau of Meteorology

Chair: Tonga Apologies:

Main purpose for the OCOF:

- To provide a regular forum for the 12 participating PIC NMSs to discuss the current ENSO status, recent one and three-month rainfall, drought (if present), their seasonal climate outlooks and stakeholders' engagement with other countries and the SPP (Bureau of Meteorology and SPREP) project team.
- In addition, it serves as an online training forum for recent ACCESS development and gives the project team and the NMSs an opportunity to discuss other project-related matters.

Agenda:

- 1. Brief introduction of PIC participants, SPREP, SPC and Bureau of Meteorology teams.
- 2. Report on current ENSO status.
- 3. Each NMS report on their past one and three-months' rainfall in relation to the current ENSO situation (include ranking and verification), their three-month outlooks and their stakeholders engagement. Wherever appropriate NMS to report on their drought status.
- Round-table discussion: addressing general concerns/queries on outlooks and SCOPIC, CliKp and ACCESS-S
- 5. Feedback on COSPPac products and services.
- 6. Country statements with regards to drought or drought-like conditions, drought module issues/concerns.
- 7. The next OCOF will be held on 15 February 2024 and is to be chaired by Tuvalu.

Participants:

The OCOF 195 was attended by 19 climate officers (10 female) from 9 partner PIC NMSs.

Cook Islands:

Fiji: Jasneel Chandra, and Shweta Shiwangni

FSM (Chuuk): Boyd Mackensie FSM (Pohnpei): Wallace Jacob

Kiribati: Kamaitia Rubetaake, and Tekaatu

Uribano

Niue: Raquel Tanaki

Papua New Guinea: Cater Guri

Palau: Kiku Mochimaru

Republic of Marshall Islands: Samson

Kaneko



Samoa: Emannuel Etimani and Junior

Lepale

Solomon Islands: Max Sitai

Tokelau:

Tonga: Selu Finaulahi

Tuvalu: Kaani Kalepo, Elifaleti Ene, and

Faoliu Teakau, Simoea Tiute

Vanuatu: Glenda Pakoa and John Ruben

Australia: Grant Beard and Elise Chandler

NOAA:

SPREP: Philip Malsale

SPC: Judith Giblin

OCOF tables were received from 14 participating countries before the meeting.

Observations of October to December 2023:

Observed rainfall for the one and three-month periods ending December 2023 were discussed for each PIC. This month, several countries experienced extreme rainfall as shown in the following table:

| Station | Period | Rainfall Amount (mm) | Rainfall Rank | Years of record |
|------------------------------|-----------|----------------------------|------------------|-----------------|
| Rarotonga, Cook Islands | December | 49.9 | 12 | 125 |
| Rarotonga, Cook Islands | Oct - Dec | 154.4 | 2 | 125 |
| Rotuma, Fiji | December | 88.1 | 4 | 109 |
| Penang Mill, Fiji | Oct - Dec | 159.7 | 4 | 109 |
| Nadi, Fiji | Oct - Dec | 115.4 | 4 | 81 |
| Vunisea, Fiji | Oct - Dec | 170.7 | 4 | 83 |
| Ono-i-Lau, Fiji | Oct - Dec | 132.4 | 8 | 76 |
| Udu point, Fiji | Oct - Dec | 318.8 | 5 | 73 |
| FSM (Pohnpei) | December | 197.1 | 7 | 75 |
| FSM (Kosrae) | December | 179.3 | 1 | 54 |
| Butaritari, Kiribati | December | 830.8 | 86 | 86 |
| Tarawa, Kiribati | December | 609.4 | 76 | 76 |
| Beru, Kiribati | Oct - Dec | 1010.7 | 64 | 66 |
| Butaritari, Kiribati | Oct - Dec | 1246.9 | 84 | 86 |
| Tarawa, Kiribati | Oct - Dec | 1105.5 | | 76 |
| Nauru | December | 537.6 | 78 | 82 |
| Nauru | Oct - Dec | 1736.5 | 80 | 80 |
| Kirakira, Solomon Islands | December | 582.6 | 53 | 56 |
| Auki, Solomon Islands | Oct - Dec | 1202.0 | 59 | 60 |
| Hendeson, Solomon Islands | Oct - Dec | 928.3 | 48 | 49 |
| Honiara, Solomon Islands | Oct - Dec | 894.7 | 65 | 66 |
| Kirakira, Solomon | Oct - Dec | 1595.0 | 55 | 55 |
| Niuatoputapu, Tonga | Oct - Dec | 288.0 | 5 | 71 |
| Vava' u, Tonga | Oct - Dec | 205.8 | 7 | 77 |

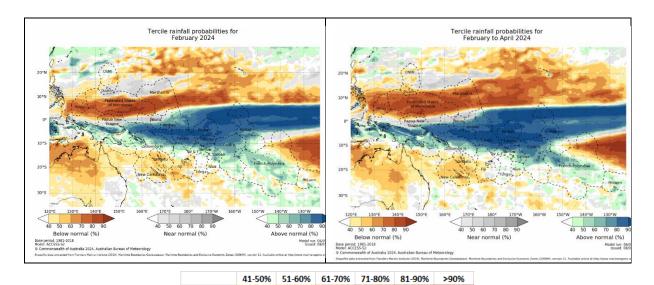
[Note: The above data may not have undergone quality control]

February to April 2024 Outlooks:

ACCESS-S outlooks:

The three-month ACCESS-S rainfall outlook for **February-April 2024** shows rainfall anomalies consistent with a mature El Niño. A region where above normal is very likely affects equatorial regions stretching from PNG in the west, across northern Solomon Islands, Nauru, Kiribati (Gilbert Is, Phoenix Is and much of the Line Is), Tuvalu, Rotuma, northern Wallis and Futuna, Tokelau, American Samoa, parts of Niue's and Samoa's EEZs, the northern and central Cook Is, and central French Polynesia. Above normal is also likely or very likely in northern CNMI.

Below normal is likely or very likely, in Guam, parts of CNMI, Palau, most of both FSM and RMI, southwest Solomon Is, New Caledonia, Vanuatu, central and southwest parts of Fiji's EEZ, and northeast French Polynesia.



| Januar | y to Marc | h 202 | 4 |
|-----------------|-----------|-------|-------|
| A | CCESS- | C3S | CLIKP |
| Cook Is North | | | |
| Cook Is South | | | |
| Fiji ₩est | | | |
| Fiji Central | | | |
| Fiji East | | | |
| Fiji North | | | |
| Fiji Rotuma | | | |
| FSM West | | | |
| FSM Central | | | |
| FSM East | | | |
| Kiribati ₩est | | | |
| Kiribati Centra | | | |
| Kiribati East | | | |
| RMI North | | | |
| RMI Central | | | |
| RMI South | | | |
| Nauru | | | |
| Niue | | | |
| Palau | | | |
| PNG Momase | | | |
| PNG Is | | | |
| PNG South | | | |
| PNG Highland | s | | |
| Samoa | | | |
| Solomon Is We | | | |
| Solomon Is Ce | ntral | | |
| Solomon Is Ea | st | | |
| Tonga North | | | |
| Tonga Central | | | |
| Tonga South | | | |
| Tuvalu North | | | |
| Tuvalu Centra | | | |
| Tuvalu South | | | |
| Vanuatu North | | | |
| Vanuatu Sout | h | | |

Below normal Near-normal Above normal

| | Jan-Mar 2024 | Feb-Apr 2024 |
|-----------------|--------------|--------------|
| | ACCESS-S | |
| Cook Is North | | |
| Cook Is South | | |
| Fiji West | | |
| Fiji Central | | |
| Fiji East | | |
| Fiji North | | |
| Fiji Rotuma | | |
| FSM West | | |
| FSM Central | | |
| FSM East | | |
| Kiribati West | | |
| Kiribati Centra | | |
| Kiribati East | | |
| RMI North | | |
| RMI Central | | |
| RMI South | | |
| Nauru | | |
| Niue | | |
| Palau | | |
| PNG Momase | | |
| PNG Is | | |
| PNG South | | |
| PNG Highlands | | |
| Samoa | | |
| Solomon Is We | | |
| Solomon Is Cei | ntral | |
| Solomon Is Eas | it | |
| Tonga North | | |
| Tonga Central | | |
| Tonga South | | |
| Tuvalu North | | |
| Tuvalu Central | | |
| Tuvalu South | | |
| Vanuatu North | | |
| Vanuatu South | | |

Other matters Discussed:

- El Niño continue and may have passed its peak.
- OCOF 197 will be hosted by SPREP via zoom on the 15 February 2024 and Tuvalu to be the chair.
- NMHS were encouraged to document El Niño impacts and start working on their El Niño report.
- New OCOF summary brief will be included in report.

Observed Rainfall

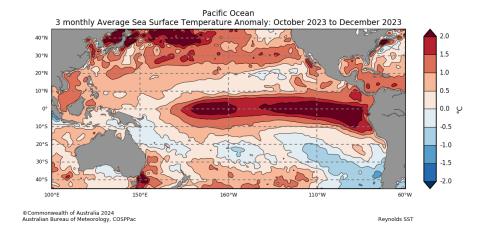
| Country | December 2023 | October to December 2023 |
|---------------------|-------------------------|-------------------------------|
| Cook Islands | Below normal | Below normal to normal |
| Fiji | Below normal to normal | Mostly normal |
| FSM (Chuuk) | Normal | Normal |
| FSM (Pohnpei) | Below normal | Below normal to normal |
| Kiribati | Above normal | Above normal |
| RMI | Below normal and normal | Below normal and above normal |
| Nauru | Above normal | Above normal |
| Niue | Above normal | Above normal |
| Palau | Below normal | Below normal |
| Papua New Guinea | No report | |
| Samoa | Mostly normal | Mostly normal |
| Solomon Islands | Mostly above normal | Mostly above normal |
| Tonga | Below normal | Below normal |
| Tuvalu | Below normal and normal | Normal and above normal |
| Vanuatu | Below normal and normal | Mostly below normal |

Ocean Conditions

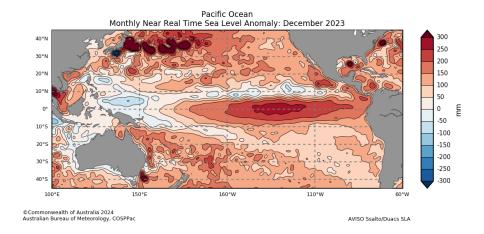
Observations of October to December 2023

Sea surface temperature:

Three-monthly SST anomalies show above normal temperatures up to 2.0°C persisted in central Line Islands, Gilbert Islands, and northern Phoenix Islands of Kiribati, Tuvalu, Samoa, Palau and Nauru. Patches of above normal temperatures in northern FSM, northern RMI, southeastern Solomons, northern Fiji and northern Tonga. SST greater than 2.0°C observed in far northern Phoenix Islands and central Line Islands of Kiribati. The remaining COSPPac countries experienced above normal temperatures spanning southeastward from PNG to southern Cook Islands, and along southern FSM and central RMI. Compared with the September to November 2023 SST anomaly pattern, near-equatorial SSTs greater than 2.0°C above normal temperature extents have expanded.



December sea level was generally 50mm to 200m above normal over three regions of the Pacific Ocean. The first region is along the 10° North latitude spanning over northern RMI. The second region is along the near-equatorial region stretching from Nauru to central Line Islands of Kiribati. The third region spans southeastward from southern PNG to southern Cook Islands. Anomalies above +200mm were observed in northern and central Line, and northern Phoenix Islands of Kiribati. Patches of +200mm were also observed in southern PNG, southern Solomon, Vanuatu, Fiji, Tonga, Niue and southern Cook Islands. Near normal sea level anomalies were observed in Palau, FSM, southern RMI, northern PNG, northeastern Solomon Islands and southern Tuvalu.

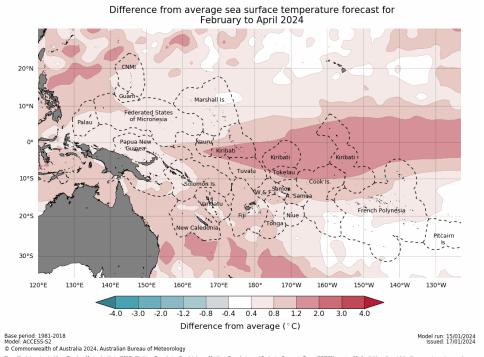


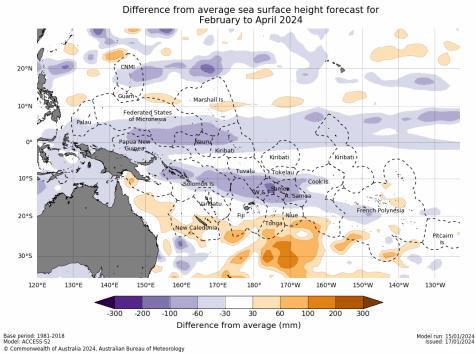
February to April 2024 Outlooks:

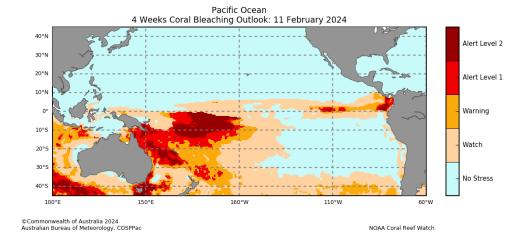
Sea surface temperature outlook: SSTs are forecast to be 0.4 to 3.0 °C affecting most of the COSPPac countries. Above normal SSTs of 1.2 to 3.0 °C are forecast for Nauru, Kiribati, and northern Cook Islands. Near-normal SSTs are forecast for parts of northern RMI and southern Cook Islands.

Sea level outlook: Sea level is forecast to be 30-100mm above normal over central RMI, far southern Fiji, Vanuatu, Tonga, Niue, southern Cook Islands and central Line Island of Kiribati. Sea levels forecast to be 30 to 200mm below normal in PNG, Palau, FSM, southern RMI, Nauru, Gilbert and northern Line Islands of Kiribati, northeastern Solomon, southern Tuvalu, Samoa, and northern Cook Islands. Remaining countries are forecast to have near-normal sea levels. Note that this outlook does not include trends of sea level rise.

Coral Bleaching Outlook: For the four weeks outlook to 11 February, "Alert Levels 1 and 2" forecast for Kiribati (southern Gilbert, central and southern Phoenix), Tuvalu, Nauru, Solomons, Fiji, northern Cooks, Samoa, northern Vanuatu and southern PNG. Broad region of 'Warning' areas surrounding the 'Alert 1 and 2' regions, forecast for Tonga, Niue, and parts of Cook Islands. The remaining countries are predicted to experience "no thermal stress".







Observed Conditions

SST: sea surface temperature anomaly

SLA: sea level anomaly BN: Below Normal NN: Near Normal AN: Above Normal

| Country | December 2023 | | | |
|------------------|---------------|--------|--|--|
| Country | SST | SLA | | |
| Cook Islands | AN, BN | AN | | |
| Fiji | AN, NN | AN | | |
| FSM (Chuuk) | NN, AN | NN | | |
| FSM (Pohnpei) | NN | BN, NN | | |
| Kiribati | AN | AN | | |
| Marshall Islands | NN | AN | | |
| Nauru | AN | AN | | |
| Niue | NN | AN | | |
| Palau | AN | BN | | |
| Papua New Guinea | AN, NN | AN, NN | | |
| Samoa | NN | NN | | |
| Solomon Islands | NN | AN, NN | | |
| Tonga | AN | AN | | |
| Tuvalu | AN | AN, NN | | |
| Vanuatu | NN, AN | AN | | |

Country Stakeholder Engagement- Evaluations of how effective countries engage with their stakeholders

| Country | Date December | Stakeholder | Total Number of Participants | Number of male | Number of female |
|---|-------------------|---|------------------------------------|----------------|------------------------|
| | 2023 | | | | |
| Cook Islands – EAR Watch | December | Red Cross, Island Council and Executive Officers, To Tatou Vai, etc | 39 | | |
| Cook Islands - Monthly Climate Briefing | December | Climate Change | 8 | | |
| Cook Islands - Climate data request | December | Ministry of Marine Resources | 1 | | 1 |
| Fiji - Climate Summary | 08 December | General public | 140 | 106 | 34 |
| Fiji - EAR Watch | 12 December | Humanitarian partners | 122 | 96 | 26 |
| Fiji - Climate Outlook | 29 December | General public | 124 | 93 | 31 |
| Fiji - Climate Outlook for Monasavu | 28 December | Energy Fiji Limited | 13 | 13 | - |
| Fiji - Annual Climate Summary | 20 December | General Public | 140 | 106 | 34 |
| Fiji - Ocean Outlook | 20 December | A number of key ocean related stakeholders | 36 | 29 | 7 |
| Fiji - Sugarcane rainfall outlook | 9 December | Sugarcane Industry stakeholders | 77 | 60 | 17 |
| Fiji - Meteorological data request | 01-31 December | A range of stakeholders | 30 | 25 | 5 |
| Fiji – Sixth National Climate Outlook Forum | 06-07 December | Ministry of Agriculture, Tailevu Dairy, Future Farms Pte Limited, Fiji Dairy Pte Limited, Sujose Nursery, FRIEND, Fiji Disabled Peoples Federation, Fiji Crop and Livestock Council, femLINK pacific, Ministry of Forestry, Ministry of Trade, Cooperatives, Small and Medium Enterprises, Mineral Resources Department, Biosecurity Authority of | 33 | 16 | 17 |

| | | Fiji, Ministry of Health, SPC, Model Town Charitable Trust, FBC, Fiji TV | | | |
|--|----------------------|---|-----|-----|-----|
| FSM (Chuuk) - Climate Bulletin | December | DCO | 4 | 2 | 2 |
| FSM (Chuuk) - EAR Watch | December | DCO | 4 | 2 | 2 |
| FSM (Pohnpei) - | December | No engagement | | | |
| Kiribati - Climate bulletin | 11 December | Government and Non-Government Organisations and public subscribed to the products. | 158 | 70 | 88 |
| Kiribati - Ocean Bulletin | 11 December | Government and Non-Government Organisations and public subscribed to the products. | 158 | 70 | 88 |
| Kiribati - Media release | 11 December | KMS Media and KMS Staffs | 53 | 23 | 30 |
| Kiribati – EAR Watch | 12 December | Drought committee members | 62 | 35 | 27 |
| Marshall Island – Climate briefing | 15 December | Office of the Chief Secretary and the National Disaster Management Office | 5 | 3 | 2 |
| Nauru | December | No Engagement | | | |
| Niue – Monthly Climate Briefing | December | Private Sector, Government Officials, Government staff, Stakeholders | 12 | 10 | 12 |
| Palau - UNEP CIS Pac-5 Climate and Ocean Training at BoM | 4-15 December | WSO Palau and Niue, Vanuatu, Tuvalu and RMI Climate and MET services | 10 | 6 | 4 |
| Palau-APCC and UNEP Joint Regional Training Workshop | 4-6 December | WSO Palau, Palau PMU and Palau Red Cross, Cook, Niue, Tuvalu and RMI MET services and social media platform | 28+ | 14+ | 14+ |
| Palau - Weekly Weather Bulletin | 5 and 13 December | WSO Palau and social media platform | 24+ | 16+ | 8+ |
| Palau - Data infographic for November Rainfall | 6 December | WSO Palau, WFO Guam, PEAC, US Drought Monitor-USAPI, Regional Climate partners, and social media platform. | 10+ | 6+ | 4+ |

| Palau - Joint APCC and UNEP Training Workshop | 7-8 December | WSO Palau, Palau PMU and Palau Red Cross, Cook, Niue, Tuvalu and RMI MET services and social media platform. | 26+ | 12+ | 14+ |
|--|--------------|---|-----|-----|-----|
| Palau - EAR Watch | 9 December | WSO Palau, never made it to social media platform | 13+ | 9+ | 4+ |
| Palau - Climate and Ocean Bulletin | 19 December | WSO Palau and social media platform | 16+ | 12+ | 4+ |
| Palau- UNEP CIS Pac-5 Virtual Meeting | 19 December | WSO Palau, UNEP Program Coordinator and Financial Officer and Palau PMU team. | 6 | 0 | 6 |
| Samoa - Climate data request | 15 December | USP | 1 | 1 | 0 |
| Solomon Islands – Climate bulletin | December | Red Cross, NDMO, Ministry of Agriculture, SIBC, Hydrology, Solomon star, Paoa FM, World Vision, Glodridge Mining, Ministry of Mines and Energy, MEHRD, Forestry, Ministry of Health, Solomon Water, MECDM, Live and Learn, Tourism, Maritime Service, People with Disability, MID, Ministry of Fisheries, Sol Tuna Ltd, UN Women, Council of Women, Community Representatives | 58 | 46 | 12 |
| Solomon Islands – EAR Watch | December | Red Cross, NDMO, Ministry of Agriculture, SIBC, Hydrology, Solomon star, Paoa FM, World Vision, Glodridge Mining, Ministry of Mines and Energy, MEHRD, Forestry, Ministry of Health, Solomon Water, MECDM, Live and Learn, Tourism, Maritime Service, People with Disability, MID, Ministry of Fisheries, UN Women, Council of Women. | 53 | 39 | 14 |
| Solomon Islands - Ocean Bulletin | December | Red Cross, NDMO, Ministry of Agriculture, SIBC, Hydrology, Solomon star, Paoa FM, World Vision, Glodridge Mining, Ministry of Mines and Energy, MEHRD. | 14 | 9 | 5 |
| Tonga – Climate Bulletin | 3 December | Government ministries. NGOs, Media, Private Sector | 155 | 118 | 37 |
| Tonga – Ocean Outlook | 3 December | Government ministries. NGOs, Media, Private Sector | 155 | 118 | 37 |
| Tuvalu – Climate Bulletin | 5 December | MET Staff Disaster Dept TRC TuCAN Agriculture | 20+ | 10 | 10 |

| | | All Civil Servants | | | |
|----------------|------------|-----------------------|-------|-------|-----|
| | | All Kaupule Secretary | 00. | 40 | 4.0 |
| Tuvalu – EAR | 5 December | MET Staff | 20+ | 10 | 10 |
| Watch | | Disaster Dept | | | |
| | | TRC | | | |
| | | TuCAN | | | |
| | | Agriculture | | | |
| | | All Civil Servants | | | |
| | | All Kaupule Secretary | | | |
| Tuvalu – Ocean | 5 December | MET Staff | 20+ | 10 | 10 |
| Outlook | 3 December | Disaster Dept | | | |
| Outlook | | TRC | | | |
| | | TuCAN | | | |
| | | Agriculture | | | |
| | | All Civil Servants | | | |
| | | All Kaupule Secretary | | | |
| Vanuatu | December | No engagement | | | |
| Variatio | | | | | |
| | - | Гotal | 1,848 | 1,195 | 616 |

Note: The stakeholder data above may not total up due to lack of data from NMS or no participation