

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 185 Summary Report

Date: Wednesday 15 February 2023

Time: Australian Eastern Daylight-Saving Time at 12:00PM (01:00 UTC)

Host: SPREP

Chair: SPREP

Apologies: Cook Islands, Palau, Marshall Islands and Tuvalu

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.
4. 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 March 2023** and is to be chaired by **Tuvalu**.

Participants:

The Forum was attended by 21 climate officers (13 female) from 8 partner PIC NMSs.

Cook Islands:

Fiji: Jasneel Chandra and Shweta Shiwangni

Kiribati: Tekaatu Uribano and Miriam Kataunati

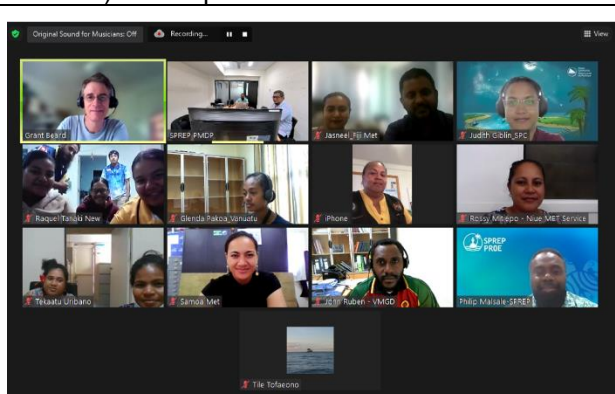
Niue: Rossy Mitiepo, Raquel Tanaki, Julynn Motusa, Helen Tukutama, Sean Tukutama, Floyd Viliamu, Jedaiah Tukuitonga

Papua New Guinea:

Palau:

Republic of Marshall Islands:

Samoa: Taumensina Fomai, Emmanuel Etimani and Junior Lepale



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| | |
|---|--|
| Solomon Islands: Max Sitai Tonga: Mele Lakai Tuvalu: Simoea Tiute, Aaron Puafitu and Leiti Setefano Vanuatu: Glenda Pakoa and John Ruben Australia: Grant Beard SPREP: Philip Malsale and Tile Tofaeono SPC: Judith Gibson | |
|---|--|

OCOF tables were received from 12 participating countries before the meeting.

Observations of November 2022 to January 2023:

Observed rainfall for the one and three-month periods ending January 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 |
|---------------------------|---------|----------------------|---------------|-----------------|
| Nadi Airport, Fiji | January | 711.9 | 77 | 82 |
| Rotuma, Fiji | January | 168.1 | 10 | 111 |
| Nadi Airport, Fiji | Nov-Jan | 1217.6 | 76 | 80 |
| Navua, Fiji | Nov-Jan | 573.0 | 5 | 75 |
| Ono-i-lau | Nov-Jan | 752.8 | 68 | 72 |
| Rotuma, Fiji | Nov-Jan | 548.5 | 3 | 107 |
| Arorae, Kiribati | Nov-Jan | 14.6 | 1 | 55 |
| Nadzab, PNG | January | 45.6 | 3 | 49 |
| Nadzab, PNG | Nov-Jan | 250 | 3 | 48 |
| Kirakira, Solomon Islands | January | 611.4 | 52 | 56 |
| Lata, Solomon Islands | January | 725.0 | 45 | 49 |
| Nanumea, Tuvalu | January | 80.6 | 8 | 83 |
| Niulakita, Tuvalu | January | 129.8 | 5 | 70 |
| Funafuti, Tuvalu | Nov-Jan | 707.0 | 9 | 90 |
| Bauerfield, Vanuatu | Nov-Jan | 1189.0 | 49 | 50 |

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

March to May 2023 Outlooks:

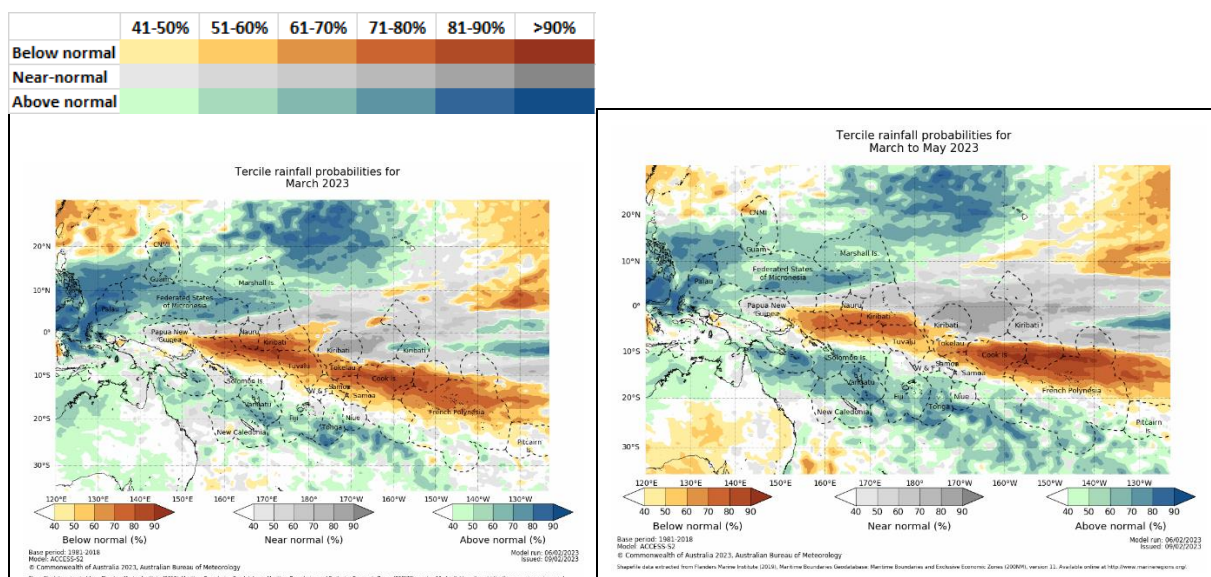
ACCESS-S outlooks:

The ACCESS-S for March to May 2023 shows aspects of a declining La Niña pattern, with a region where below normal rainfall is very likely stretching from northern PNG in the west, to the southern Line Islands, French Polynesia, and Pitcairn Island in the east.

To the southwest of this region, the ACCESS model shows the opposite signal, that is, above average rainfall being likely or very likely in a band stretching southeast from the southeast islands of PNG, across the southern Solomon Islands, New Caledonia, Vanuatu, Fiji (excluding Rotuma), Tonga, Niue, the southern Cook Islands, and southern French Polynesia. Above normal is also favoured across Palau, FSM, Guam, CNMI, and RMI.

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Blank (white) cells in the tables below indicate the chance is <40% in all categories – so it could be "little guidance" (e.g. 30/36/34), or near-equal in two categories (e.g. 39/37/24).



| | Feb-Apr 2023 | Mar-May 2023 | February to April 2023 | | |
|--------------------|--------------|--------------|------------------------|-----|-------|
| ACCESS-S | | | ACCESS-S | C3S | CLIKP |
| 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 Central | | | | | |
| Kiribati East | | | | | |
| RMI North | | | | | |
| RMI Central | | | | | |
| RMI South | | | | | |
| Nauru | | | | | |
| Niue | | | | | |
| Palau | | | | | |
| PNG Momase | | | | | |
| PNG Is | | | | | |
| PNG South | | | | | |
| PNG Highlands | | | | | |
| Samoa | | | | | |
| Solomon Is West | | | | | |
| Solomon Is Central | | | | | |
| Solomon Is East | | | | | |
| Tonga North | | | | | |
| Tonga Central | | | | | |
| Tonga South | | | | | |
| Tuvalu North | | | | | |
| Tuvalu Central | | | | | |
| Tuvalu South | | | | | |
| Vanuatu North | | | | | |
| Vanuatu South | | | | | |

Other matters Discussed:

- OCOF 186 will be hosted by SPREP via zoom on the 15 March 2023
- April PICO 2023 tentative date: 21st April
- Update email list for climate products
- Brief on the ROK-PI-Clips Regional training

Link to OCOF 185 recording - <https://sprep.zoom.us/rec/share/N0zo-n6-5a6CnFKVv7UHBagoiTpZuGjsfVUk8c6x2cdfjX8ig9MUr0IAuNw8h1.1eVp-xlxsalJhvoi>

Passcode: ^BA2@UL^

Observed Rainfall

| Country | January 2023 | November 2022 to January 2023 |
|------------------|-------------------------------|-------------------------------|
| Cook Islands | Below normal and above normal | Normal to below normal |
| Fiji | Mainly normal to above normal | Below normal to above normal |
| Kiribati | Mostly below normal | Mostly below normal |
| RMI | Above normal | Normal |
| Niue | Above normal | Normal |
| Palau | Above normal | Normal |
| Papua New Guinea | Below normal to normal | Mostly below normal |
| Samoa | Mostly normal | Mostly normal |
| Solomon Islands | Above normal to normal | Mostly above normal |
| Tonga | Mostly normal | Below normal to above normal |
| Tuvalu | Below normal | Below normal |
| Vanuatu | Mostly normal to above normal | Mostly normal to above normal |

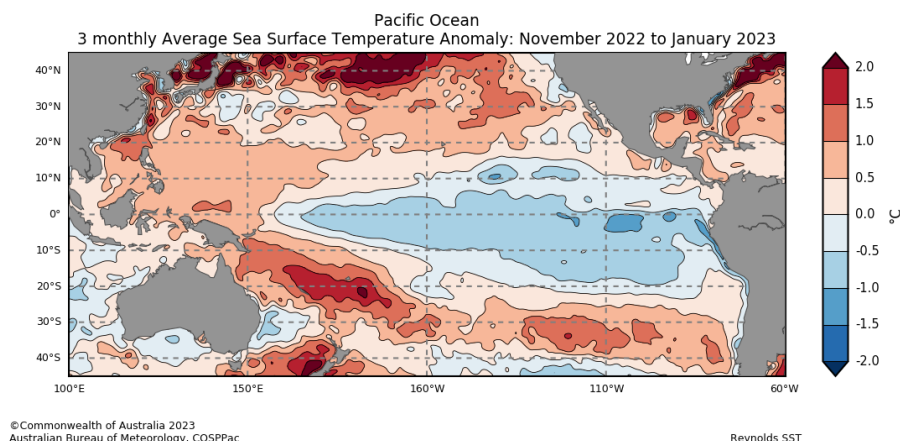
Ocean Conditions

Observations of November 2022 to January 2023

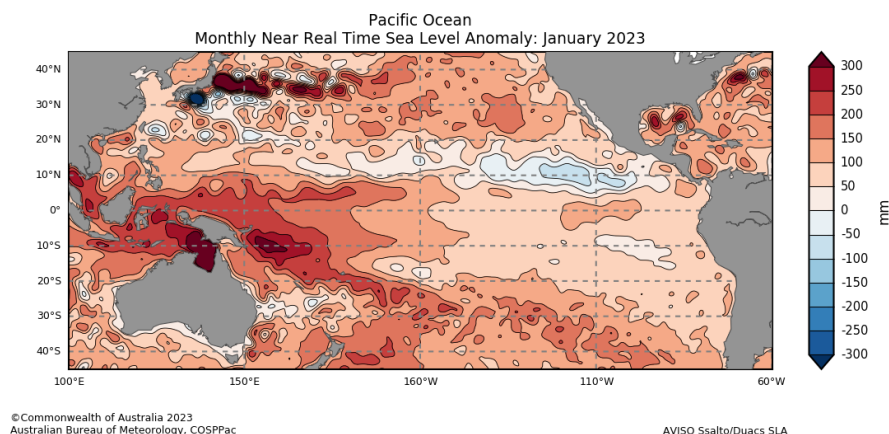
Sea surface temperature:

Three-monthly SST anomalies show 0.5°C to 1.0°C below normal along the near-equatorial regions including Nauru, far northern Tuvalu, Kiribati, and the far northern Cook Islands. SSTs were near-normal (within 0.5°C of average) over most of the Marshall Islands, eastern FSM, Tuvalu, Tokelau, Samoa, American Samoa, and majority of the Cook Islands. Above normal temperatures persisted in the remaining partner countries stretching from Palau to southern Niue, with SST anomalies above +1.5°C stretching southeastward from Vanuatu to Tonga.

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Apart from northern RMI and the central Cook Islands where sea level was close to normal, January sea level was above normal over COSPPac countries. Anomalies above +250 mm were observed in southeastern PNG, the Solomon Islands, Vanuatu, northern New Caledonia, and in patches of Fiji, and southeastern Tonga. In addition, a few small parts of FSM also had anomalies over +250 mm. Sea level was generally 100 mm to 250 mm above average elsewhere.



March to May 2023 Outlooks:

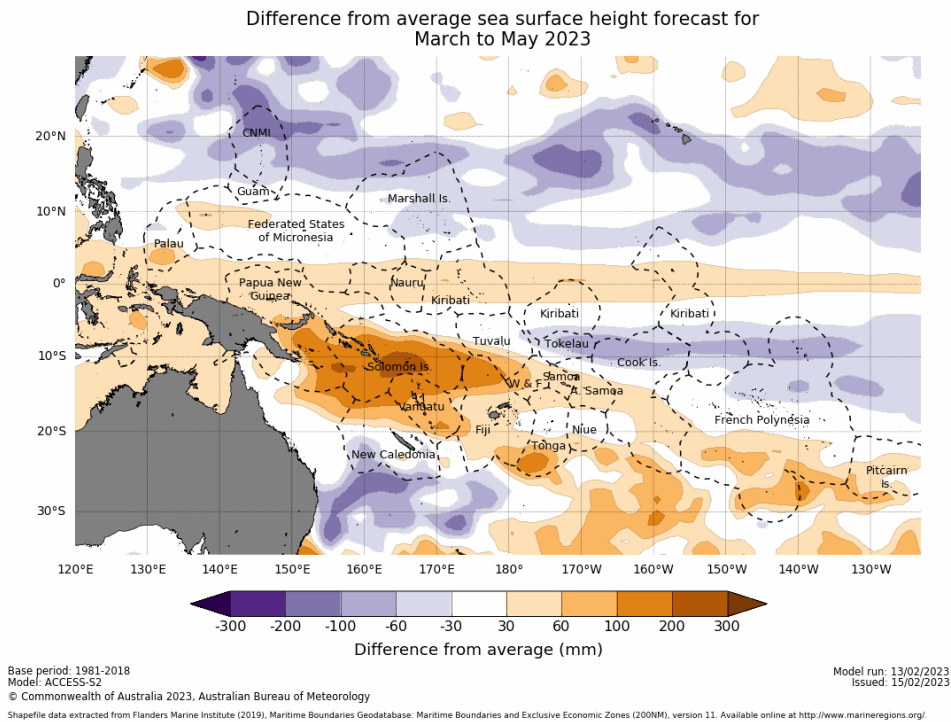
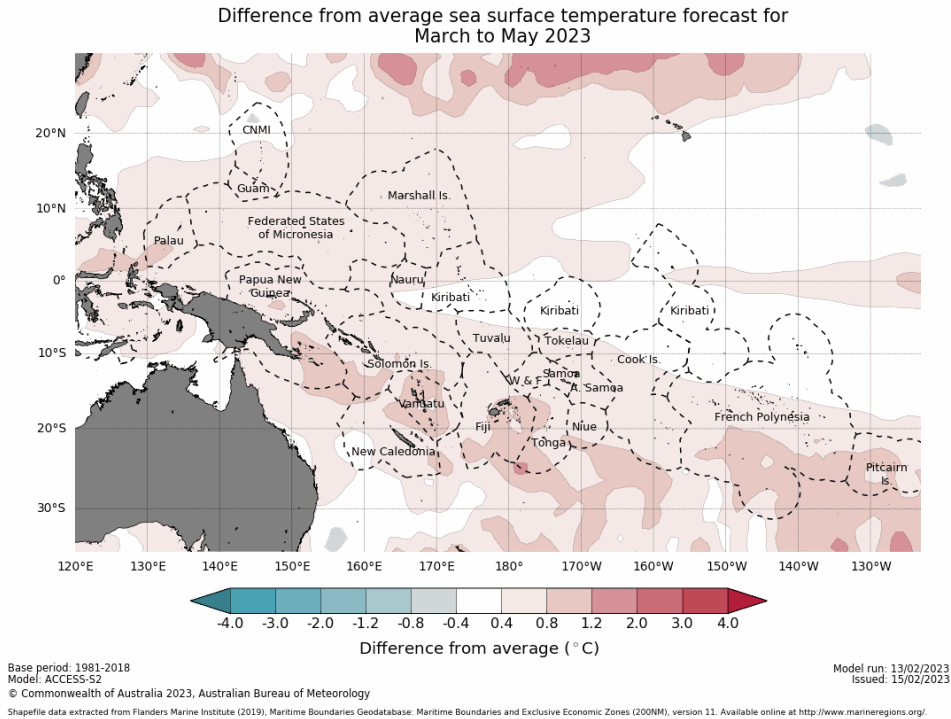
Sea surface temperature outlook: SSTs are forecast to be 0.4 to 1.2 °C above normal in a large boomerang shape wrapping around the equator, affecting a majority of countries in the western tropical Pacific. The remainder, where SSTs are forecast to be within 0.4 °C of normal, include Kiribati (except the northern Gilbert Group, and small portion of northern Line Group), northern Tuvalu, northern Tokelau, northern Cook Islands, and northern French Polynesia.

Sea level outlook: Sea level is forecast to be 30-100mm above normal for countries within two main regions: the first region aligned West-East along the equator, stretching over southern Palau, southern FSM, PNG, Nauru, far southern RMI, the Gilbert Islands, northern Phoenix Islands and northern Line Islands of Kiribati. The second region extends southeastward from PNG to Pitcairn Island. Regions where the sea level is forecast to be 100-300mm above normal include the Solomon Islands, southeast PNG, northern New Caledonia, Vanuatu, the far north of Fiji and a small patch in southern Tonga. Pools of below average sea levels are predicted in northern and eastern RMI, Tokelau, northern Cook Islands, Kiribati (southern Line Islands), and northern French Polynesia. Note that this outlook does not include trends of sea level rise.

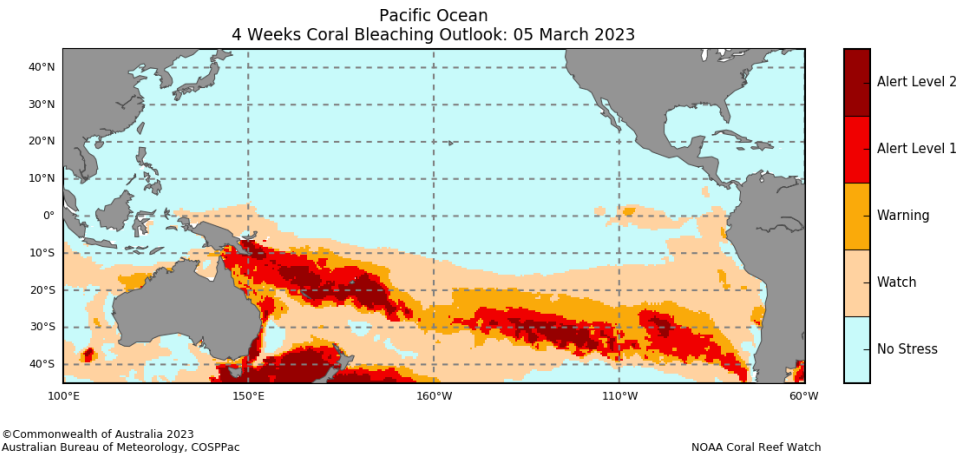
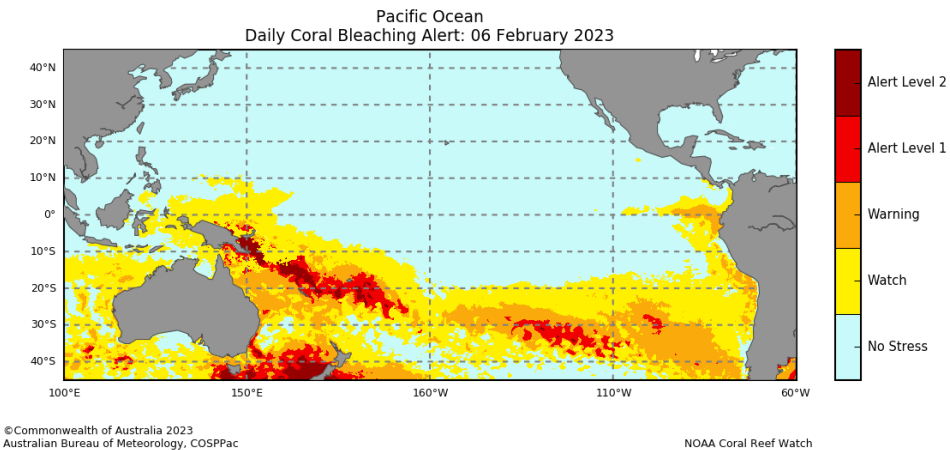
Coral Bleaching Outlook: For the four weeks to 5 March, a broad region of "Alert Levels 1 and 2" extends southeast from PNG across the Solomon Islands, Vanuatu, New Caledonia, Fiji, and Tonga. 'Warning' areas, which surround the Alerts 1 and 2, reach northwards PNG, most of Solomon Islands, northern Vanuatu, Fiji, Tonga, and southern Niue. 'Watch' status affects central southern FSM, the southern Line

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Islands of Kiribati, southern Tuvalu, southern Tokelau, Samoa, American Samoa, and majority of the Cook Islands. The remaining countries are predicted to experience "no thermal stress".



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Observed Conditions

SST: sea surface temperature anomaly

SLA: sea level anomaly

CB: coral bleaching

BN: Below Normal

NN: Near Normal

AN: Above Normal

Coral Bleaching: (No Stress, Watch, Warning, Alert1, Alert2)

| Country | January 2023 | | |
|------------------|--------------|-----|-----------|
| | SST | SLA | CB |
| Cook Islands | NN, BN | AN | Watch |
| Fiji | AN | AN | Alert1 |
| Kiribati | BN | AN | No Stress |
| Marshall Islands | AN | AN | No Stress |
| Niue | AN | AN | Watch |
| Palau | AN | AN | Watch |

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|-------------------------|--------|----|--------|
| Papua New Guinea | AN | AN | Alert2 |
| Samoa | NN, AN | AN | Watch |
| Solomon Islands | AN | AN | Alert2 |
| Tonga | AN | AN | Alert2 |
| Tuvalu | NN | AN | Watch |
| Vanuatu | AN | AN | Alert2 |

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

| Country | Date January 2023 | Stakeholder | Total Number of Participants | Number of male | Number of female |
|---|---------------------------------------|--|---|---------------------------|---------------------------------|
| Cook Islands – EAR Watch | January | CIMS, MOT, EMCI & Climate | 40 | 20 | 42 |
| Cook Islands – Monthly climate briefing | January | CIMS, MOT, EMCI & Climate | 40 | 20 | 20 |
| Cook Islands - Climate data request | January | MMR & TTV | 2 | | 2 |
| Fiji - Climate Summary | 07 January | General public | 140 | 106 | 34 |
| Fiji - EAR Watch | 11 January | Humanitarian partners | 122 | 96 | 26 |
| Fiji - Climate Outlook | 31 January | General public | 124 | 93 | 31 |
| Fiji - Climate Outlook for Monasavu | 31 January | Energy Fiji Limited | 13 | 13 | - |
| Fiji - Ocean Outlook | 20 January | A number of key ocean related stakeholders | 36 | 29 | 7 |
| Fiji – ENSO Update | 25 January | General public | 142 | 116 | 26 |
| Fiji – Sugarcane climate outlook | 31 January | Sugar Industry stakeholders | 77 | 60 | 17 |
| Fiji - Meteorological data request | 01-31 January | A range of stakeholders | 27 | 18 | 9 |

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| | | | | | |
| Kiribati - Climate bulletin | 11 January | Government and Non-Government Organisations and public subscribed to the products. | 161 | 45 | 73 |
| Kiribati - Ocean Bulletin | 11 January | Government and Non-Government Organisations and public subscribed to the products. | 161 | 45 | 73 |
| Kiribati - Media release | 11 January | National Media and KMS Staffs | 53 | 23 | 30 |
| Kiribati – EAR Watch | 18 January | Island Council Mayors and clerks, KMS staff | 52 | 30 | 22 |
| Marshall Island – Climate briefing | 20 January | Office of the Chief Secretary and the NDMO | 5 | 3 | 2 |
| Niue – Monthly Climate briefing | 25 January | <ul style="list-style-type: none"> • Private Sector • Government Officials • Government staff • Stakeholders | 25 | 4 | 21 |
| Palau - EAR Watch | 12 January | National Emergency Committee (NEC) <ul style="list-style-type: none"> • Office of the Vice President • Office of the President • NEMO Coordinator • National Weather Service • Bureau of Budget and Planning • Bureau of Tourism • Bureau of Commercial Development • Attorney General's Office • Bureau of Youth, Applied Arts and Careers • Bureau of Public Health • Bureau of Public Work • Bureau of Public Safety • Palau Community College • Bureau of Education Administration • Palau Public Utility Corporation • Palau National Communication Corporation • Bureau of Foreign Affairs& Trade • Bureau of Domestic Affairs • Bureau of Agriculture • Governors Association • Palau Red Cross Society • Environment Quality Protection Board • Bureau of Aviation • Division of Property and Supply • Palau Chamber of Commerce • Palau Visitor's Authority • Bureau of Customs & Boarder Protection • Koror State Government | 28 | 19 | 9 |
| PNG – Seasonal Climate Outlook | 15 January | Govt: National Disaster Centre, Dept. of Agriculture and Livestock, Climate Change Development Authority, | 171 | 130 | 41 |

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|----------------------------------|------------|--|-----|----|----|
| | | National Agriculture Research Institute, Dept. of Transport, Dept. Of Mineral Policy and Geohazard Management, Dept. of Works, PNG Fire, National Maritime Safety Authority, Civil Aviation Safety Authority, PNG Forest Authority, National Capital District Commission, PNG Customs Authority, National Dept. Of Health, Dept. of Education, Centre for Environmental Protection Authority, Water PNG. UN agencies: UNDP, IOM, UNOCH. Private: PNG Air Services Limited, ExxonMobil, Ok Tedi Mining Ltd, PNG Power Ltd, Global Construction Ltd, Datec, Interoil, Air Niugini, Bank South Pacific, Kina Bank, SMEC, PNG Ports, Media and Universities. | | | |
| PNG – Drought Update | 26 January | Govt: National Disaster Centre, Dept. of Agriculture and Livestock, Climate Change Development Authority, National Agriculture Research Institute, Dept. of Transport, Dept. Of Mineral Policy and Geohazard Management, Dept. of Works, PNG Fire, National Maritime Safety Authority, Civil Aviation Safety Authority, PNG Forest Authority, National Capital District Commission, PNG Customs Authority, National Dept. Of Health, Dept. of Education, Centre for Environmental Protection Authority, Water PNG. UN agencies: UNDP, IOM, UNOCH. Private: PNG Air Services Limited, ExxonMobil, Ok Tedi Mining Ltd, PNG Power Ltd, Global Construction Ltd, Datec, Interoil, Air Niugini, Bank South Pacific, Kina Bank, SMEC, PNG Ports, Media and Universities. | 120 | 75 | 45 |
| Samoa – EAR Watch | 25 January | RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines | 65 | 27 | 38 |
| Samoa - Seasonal Climate Outlook | 25 January | RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines | 65 | 27 | 38 |

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| Samoa – Community Program Review | 30 January | RED Cross, Water Authority (SWA), Media, Health, Works & Infrastructure, Land & Transport Authority, Agriculture & Fisheries, Fire Services, Ministry of Women, National University of Samoa, Tourism, Foreign Affairs, Communication and Information Technology, Disaster Managers, Marines | 65 | 27 | 38 |
| Solomon Islands – Climate bulletin | January | 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 | January | 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 | January | 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 -Ocean Outlook | 3 January | Government ministries, NGOs, Media, Private sector | 155 | 118 | 37 |
| Tonga -Climate Outlook | 3 January | Government ministries, NGOs, Media, Private sector | 155 | 118 | 37 |
| Tuvalu-Climate Bulletin | January | Met staffs, Disaster Members TRC TuCAN Agriculture All civil servants All kaupule members | 22 2 2 1 2 | 17 2 1 1 | 5 1 2 |
| Tuvalu - EAR Watch | January | Met staffs, Disaster Members TRC TuCAN Agriculture All civil servants All kaupule members | 22 2 2 1 2 | 17 2 1 1 | 5 1 2 |

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| Tuvalu - Monthly Climate briefing | January | Met staffs, | 22 | 17 | 5 |
| | | Disaster Members | 2 | 2 | |
| | | TRC | 2 | 1 | 1 |
| | | TuCAN | 1 | 1 | |
| | | Agriculture | 2 | | 2 |
| | | All civil servants | | | |
| Tuvalu -Ocean Outlook | January | All kaupule members | 22 | 17 | 5 |
| | | Met staffs, | 2 | 2 | |
| | | Disaster Members | 2 | 1 | 1 |
| | | TRC | 1 | 1 | |
| | | TuCAN | 2 | | 2 |
| | | Agriculture | | | |
| Tuvalu - Climate data request | 01-31 January | All civil servants | 2 | | |
| | | All kaupule members | | | |
| Vanuatu - Toll Free update | 13 January | APCC's (Peta) | 1 | 1 | |
| | | Tuvalu Climate Change | | | |
| Vanuatu – Community Climate Centres briefing | 18 January | General public | | | |
| | | VMGD, Van-KIRAP, NDMO, Agriculture, Infrastructure, Water, General Public. | 27 | 19 | 8 |
| Vanuatu -Agro-Met bulletin | 20 January | General Public | | | |
| Vanuatu – Fisheries Climate Outlook | 20 January | | | | |
| Vanuatu – Tourism Climate Outlook | 20 January | | | | |
| Vanuatu -Ocean Outlook | 20 January | | | | |
| Total | | | 1,379 | 1,460 | 789 |

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