

## Seasonal Prediction Project (SPP)

### Pacific Islands – Ocean and Climate Outlook Forum No. 188 Summary Report

**Date:** Friday 18 May 2023

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

**Host:** SPREP

**Chair:** Fiji

**Apologies:** SPC and Cook Islands,

**Main purpose for the OCOF:**

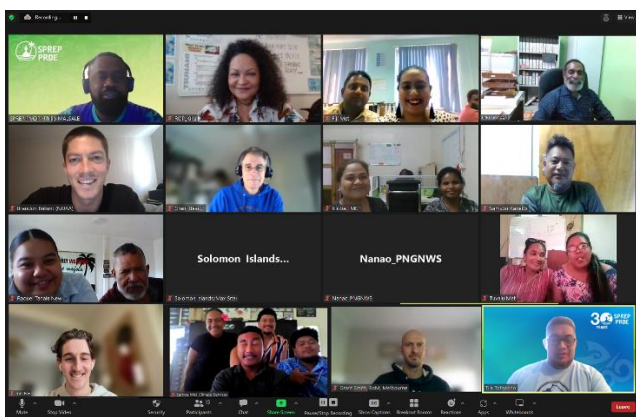
- To provide a regular forum for the 12 participating PIC NMSs to discuss the current ENSO status, recent one and three-month rainfall, drought (if present), their seasonal climate outlooks and stakeholders' engagement with other countries and the SPP (Bureau of Meteorology and SPREP) project team.
- 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 June 2023** and is to be chaired by **Kiribati**.

**Participants:**

The Forum was attended by 18 climate officers (10 female) from 9 partner PIC NMSs.

<p><b>Cook Islands:</b></p> <p><b>Fiji:</b> Jasneel Chandra and Shweta Shiwangni</p> <p><b>FSM:</b></p> <p><b>Kiribati:</b> Tekaatu Uribano and Kamaitia Rubetaake</p> <p><b>Niue:</b> Raquel Tanaki, Helen Tukutama, and Robert Toglamana</p> <p><b>Papua New Guinea:</b> Jimmy Gomoga and Nanao Bouauka</p> <p><b>Palau:</b> Kiku Mochimaru</p>	
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<p><b>Republic of Marshall Islands:</b> Samson Kaneko</p> <p><b>Samoa:</b> Kotoni Faasau, Emmanuel Etimani, Taumensina Fomai and Mathaniah Salesa</p> <p><b>Solomon Islands:</b> Max Sitai</p> <p><b>Tonga:</b></p> <p><b>Tuvalu:</b> Leiti Setefano and Simoea Tiuti</p> <p><b>Vanuatu:</b></p> <p><b>Australia:</b> Grant Beard, Gran Smith and Elise Chandler</p> <p><b>SPREP:</b> Philip Malsale and Tile Tofaeono</p> <p><b>SPC:</b></p> <p><b>Flinch Marketing:</b> Tom Foy</p>	
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OCOF tables were received from 9 participating countries before the meeting.

**Observations of February to April 2023:**

Observed rainfall for the one and three-month periods ending April 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
Nausori airport, Fiji	April	143.1	6	67
Navua, Fiji	April	87.5	3	79
Savisavu Airfield, Fiji	April	60.3	4	66
Nausori, Fiji	Feb - Apr	657.2	6	67
Navua, Fiji	Feb - Apr	609.5	2	78
Hanan Airport, Niue	Feb - Apr	1146.2	110	118
Kavieng, PNG	April	453.0	85	94
Port Moresby, PNG	April	247.0	122	131
Taro, Solomon Islands	April	127.9	1	48
Auki, Solomon Islands	Feb - Apr	787.9	6	62
Nanumea, Tuvalu	Feb - Apr	299.8	8	83
Niulakita, Tuvalu	Feb - Apr	356.7	2	71
Sola, Vanuatu	April	73.1	1	51
Port Vila, Vanuatu	Feb - Apr	1323.0	70	71

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

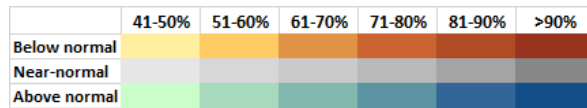
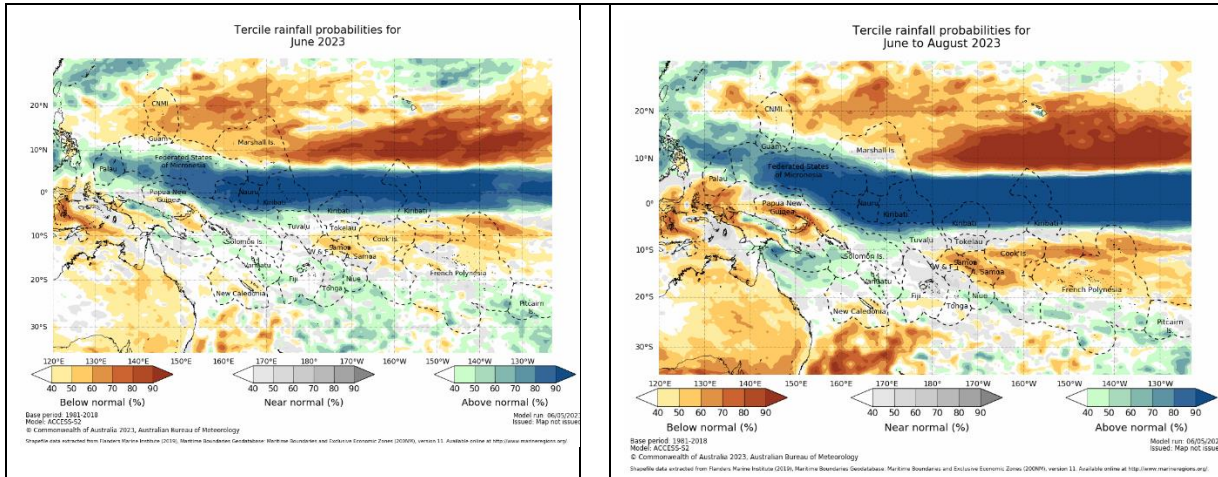
**June to August 2023 Outlooks:**

ACCESS-S outlooks:

As we're now in a transition period at the end of La Niña possibly entering an El Niño phase, there is more variation among models, although the overall patterns are similar, as we've seen on the spatial summary below. It's clear that the probabilities are much weaker than at the height of the La Niña, which is as expected. The ACCESS-S model shows a region of above normal rainfall very likely spanning from northern Palau, Guam, FSM, southern RMI, Nauru, and Kiribati (Gilbert, northern Phoenix and northern Line Islands). In the southern hemisphere, there were weaker signals of above normal rainfall likely for southeast PNG, northern and southern Solomon Islands, and patches in Vanuatu, Fiji, Tonga, Niue, southern Cook Islands, southern French Polynesia and Pitcairn Islands.

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The ACCESS-S model shows opposite signal, that is below normal rainfall region likely or very likely spanning from CNMI to the northern tip of Line Islands (Kiribati). In the southern hemisphere, below normal rainfall is likely or very likely for PNG highland region and PNG Islands, Wallis and Futuna, Samoa, American Samoa, northern Cook Islands and northern French Polynesia. Patches of below normal rainfall are also likely for western Solomon Islands, New Caledonia, south Fiji, southern Tuvalu, southeast Tonga and Pitcairn Islands.



May to July 2023	
ACCESS- C3S CLIKP	
Cook Is North	Red
Cook Is South	Green
Fiji West	Grey
Fiji Central	Green
Fiji East	Green
Fiji North	Grey
Fiji Rotuma	Yellow
FSM West	Blue
FSM Central	Green
FSM East	Green
Kiribati West	Blue
Kiribati Central	Blue
Kiribati East	Green
RMI North	Yellow
RMI Central	Green
RMI South	Green
Nauru	Blue
Niue	Grey
Palau	Blue
PNG Momase	Green
PNG Is	Yellow
PNG South	Green
PNG Highlands	Yellow
Samoa	Yellow
Solomon Is West	Green
Solomon Is Central	Green
Solomon Is East	Green
Tonga North	Grey
Tonga Central	Yellow
Tonga South	Green
Tuvalu North	Green
Tuvalu Central	Green
Tuvalu South	Yellow
Vanuatu North	Green
Vanuatu South	Green

June to August 2023	
ACCESS-S	
Cook Is North	Yellow
Cook Is South	Green
Fiji West	Grey
Fiji Central	Grey
Fiji East	Grey
Fiji North	Grey
Fiji Rotuma	Grey
FSM West	Blue
FSM Central	Blue
FSM East	Blue
Kiribati West	Blue
Kiribati Central	Blue
Kiribati East	Blue
RMI North	Yellow
RMI Central	Grey
RMI South	Blue
Nauru	Blue
Niue	Green
Palau	Green
PNG Momase	Green
PNG Is	Yellow
PNG South	Grey
PNG Highlands	Yellow
Samoa	Yellow
Solomon Is West	Green
Solomon Is Central	Green
Solomon Is East	Green
Tonga North	Grey
Tonga Central	Grey
Tonga South	Grey
Tuvalu North	Green
Tuvalu Central	Green
Tuvalu South	Green
Vanuatu North	Green
Vanuatu South	Green

**Other matters Discussed:**

- OCOF 189 will be hosted by SPREP via zoom on the 15 June 2023
- Palau NCOF held in April 17-18
- Welcome the participation of NOAA (Brandon Bukunt) to OCOF

**Observed Rainfall**

Country	April 2023	February to April 2023
<b>Cook Islands</b>		
<b>Fiji</b>	Mostly below normal and normal	Below normal to above normal
<b>Kiribati</b>	Mostly normal	Below normal and normal
<b>RMI</b>	Above normal	Normal and above normal
<b>Niue</b>	Above normal	Above normal
<b>Palau</b>	Below normal	Normal
<b>Papua New Guinea</b>	Below normal to above normal	Mostly normal and above normal
<b>Samoa</b>	Below normal and normal	Below normal to above normal
<b>Solomon Islands</b>	Below normal to above normal	Mostly normal
<b>Tonga</b>		
<b>Tuvalu</b>	Below normal to above normal	Below normal and normal
<b>Vanuatu</b>	Mixed – below to above normal	Mixed – below to above normal

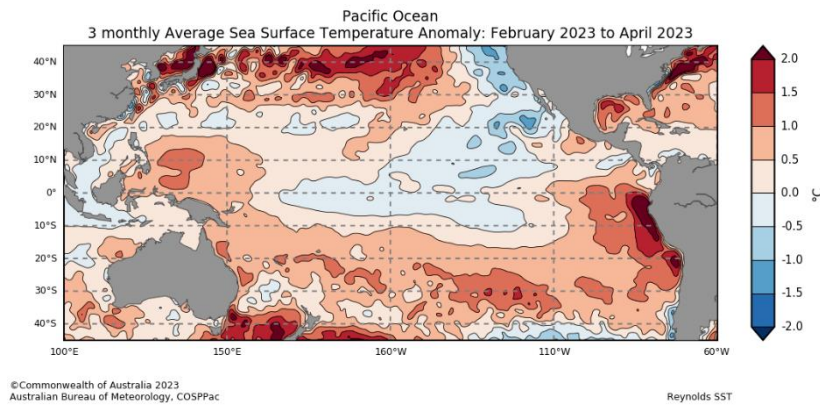
**Ocean Conditions**

**Observations of February April 2023**

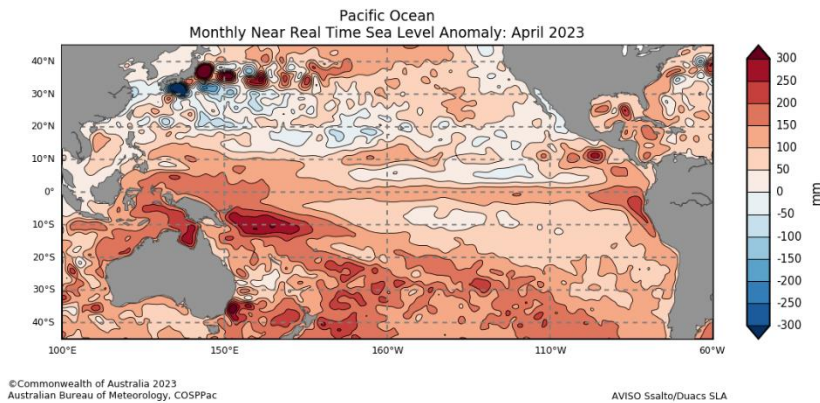
Sea surface temperature:

Three-monthly SST anomalies show near normal temperatures along the near-equatorial regions including Nauru, Kiribati, Marshall Islands, Tuvalu and the far northern Cook Islands. Above normal temperatures up to 1.5°C persisted in the remaining partner countries stretching from Palau to far southern Cook Islands.

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March sea level was above normal over most of COSPPac countries, with exception to northern Palau, northern RMI, and Kiribati (Phoenix and Line Islands), Niue, and northern Cook Islands where sea level was close to normal. Anomalies above +250 mm were observed in eastern Palau, eastern PNG, the Solomon Islands, and in patches of Fiji, and southern Tonga. Sea level was generally 100 mm to 250 mm above average elsewhere.



### June to August 2023 Outlooks:

**Sea surface temperature outlook:** SSTs are forecast to be 0.4 to 1.2 °C affecting majority of countries in the western tropical Pacific. SSTs within 0.8 to 1.2 °C are forecasted for southeastern PNG, western Solomon, southern Vanuatu, northern New Caledonia, southern Fiji, southern Tonga, and northern Tuvalu. SSTs within 1.2 to 2.0 °C above normal are forecasted along the near-equatorial regions particularly Kiribati (Gilbert, northern Kiribati and central Line Islands).

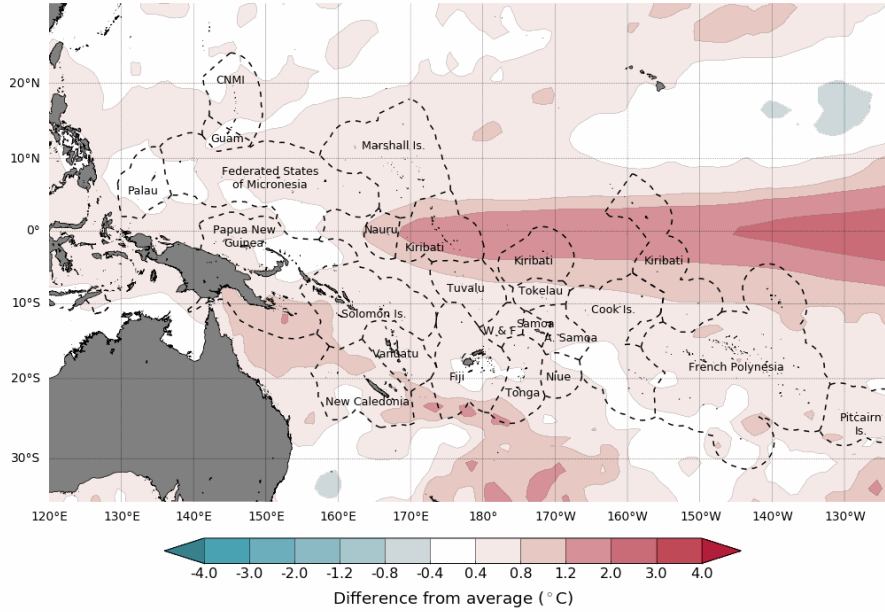
**Sea level outlook:** Sea level is forecast to be 30-100mm above normal for countries within two main regions: the first region aligned West-East along the equator, particularly Kiribati (central Gilbert Islands, northern Phoenix Islands and northern Line Islands). The second region extends southeastward from southeastern PNG to Pitcairn Island, with patches of near normal sea levels over Fiji, Tonga, Samoa, Niue, and majority of Cook Islands. Sea level anomalies from 100-200mm above normal are forecasted for far southeastern PNG, Solomon, and far southern Fiji. Pools of below average sea levels –30mm to –100mm are predicted for most of RMI, central FSM, Palau, Tuvalu, Tokelau, northern Cook Islands, Kiribati (southern Phoenix and 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 outlook to 11 June, "Alert Levels 1 and 2" located in PNG, Palau, and western FSM. Broad region of 'Warning' areas stretching across near-equatorial region, stretching from Palau to northern Line Group, Kiribati. 'Watch' status affects FSM, southern RMI, Solomon Islands, Tuvalu, Samoa, northern Cook Islands. The remaining countries are predicted to experience "no thermal stress".



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### Difference from average sea surface temperature forecast for June to August 2023



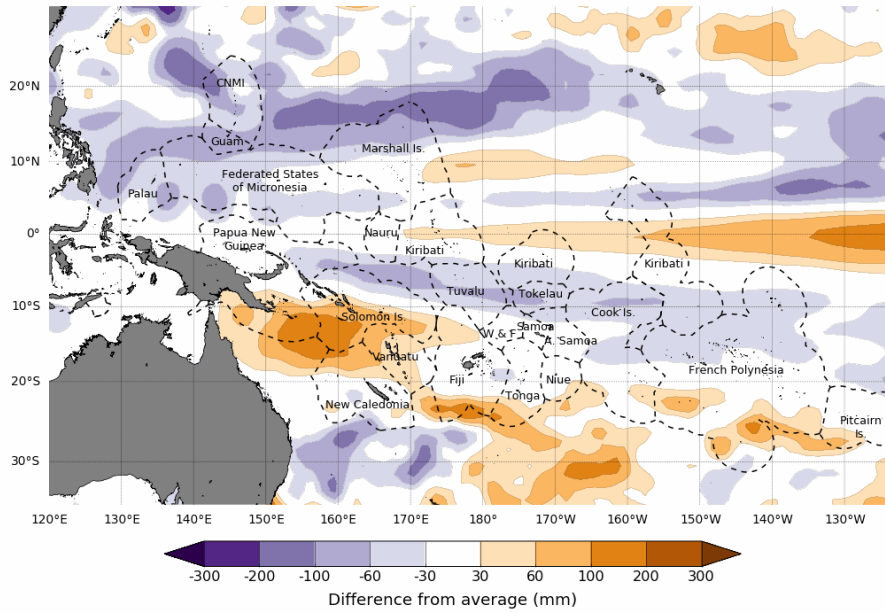
Base period: 1981-2018  
Model: ACCESS-S2

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Model run: 15/05/2023  
Issued: 17/05/2023

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinegovernance.org/>.

### Difference from average sea surface height forecast for June to August 2023



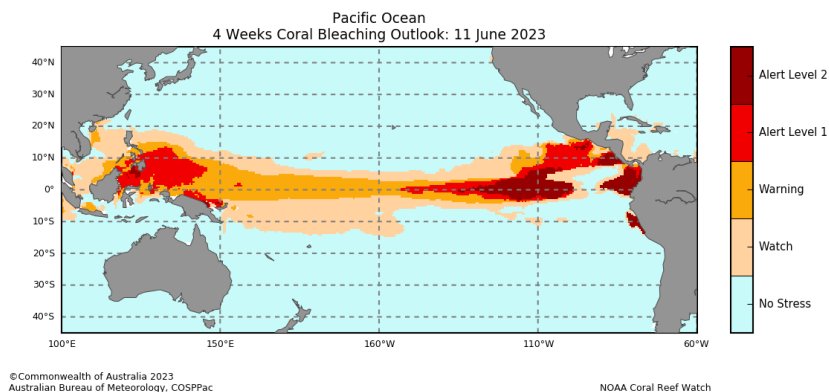
Base period: 1981-2018  
Model: ACCESS-S2

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Model run: 15/05/2023  
Issued: 17/05/2023

Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinegovernance.org/>.

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### **Observed Conditions**

SST: sea surface temperature anomaly

SLA: sea level anomaly

BN: Below Normal

NN: Near Normal

AN: Above Normal

Country	April 2023	
	SST	SLA
Cook Islands	AN	AN
Fiji	AN	AN
Kiribati	NN	AN
Marshall Islands	NN	AN
Niue	AN	AN
Palau	AN	AN
Papua New Guinea	AN	AN
Samoa	AN	AN
Solomon Islands	AN	AN
Tonga	AN	AN
Tuvalu	NN, AN	AN
Vanuatu	AN	AN

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

<b>Country</b>	<b>Date April  2023</b>	<b>Stakeholder</b>	<b>Total Number of Participants</b>	<b>Number of male</b>	<b>Number of female</b>
Cook Islands – EAR Watch	April	<i>No engagement</i>			
Fiji - Climate Summary	11 April	General public	140	106	34
Fiji - EAR Watch	12 April	Humanitarian partners	122	96	26
Fiji - Climate Outlook	28 April	General public	124	93	31
Fiji - Climate Outlook for Monasavu	28 April	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	20 April	A number of key ocean related stakeholders	36	29	7
Fiji – Sugarcane rainfall outlook	28 April	Sugarcane Industry stakeholders	77	60	17
Fiji - Meteorological data request	01-30 April	A range of stakeholders	29	21	8
Kiribati - Climate bulletin	14 April	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati - Ocean Bulletin	14 April	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati - Media release	14 April	National Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	14 April	Island Council Mayors and clerks, KMS staff	62	35	27
Kiribati -Climate Data Request	28 April	High Schools	8	3	5
Marshall Island – Climate briefing	24 April	Office of the Chief Secretary and the National Disaster Management Office	7	4	3
Niue – Monthly Climate bulletin	21 April	<ul style="list-style-type: none"> <li>• Private Sector</li> <li>• Government Officials</li> <li>• Government staff</li> <li>• Stakeholders</li> </ul>	45	20	25



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Niue – Monthly Climate Briefing	02 April	Ekalesia Niue Youth group	60 40	15 10	45 30
Palau - EAR Watch	12 April	<ul style="list-style-type: none"> <li>• National Emergency Committee (NEC)</li> <li>• Office of the Vice President</li> <li>• Office of the President</li> <li>• NEMO Coordinator</li> <li>• National Weather Service</li> <li>• Bureau of Budget and Planning</li> <li>• Bureau of Tourism</li> <li>• Bureau of Commercial Development</li> <li>• Attorney General's Office</li> <li>• Bureau of Youth, Applied Arts and Careers</li> <li>• Bureau of Public Health</li> <li>• Bureau of Public Work</li> <li>• Bureau of Public Safety</li> <li>• Palau Community College</li> <li>• Bureau of Education Administration</li> <li>• Palau Public Utility Corporation</li> <li>• Palau National Communication Corporation</li> <li>• Bureau of Foreign Affairs&amp; Trade</li> <li>• Bureau of Domestic Affairs</li> <li>• Bureau of Agriculture</li> <li>• Governors Association</li> <li>• Palau Red Cross Society</li> <li>• Environment Quality Protection Board</li> <li>• Bureau of Aviation</li> <li>• Division of Property and Supply</li> <li>• Palau Chamber of Commerce</li> <li>• Palau Visitor's Authority</li> <li>Bureau of Customs &amp; Boarder Protection</li> <li>• Koror State Government</li> </ul>	28	19	9
Palau– National Climate Outlook Forum (NCOF)	17-18 April	National Emergency Committee (NEC)	28	19	9
Palau – Stakeholder Engagement	19-20 April	National Emergency Committee (NEC)	28	19	9
Palau - PICO 12	20 April	WSO, Palau	1		1
PNG – Seasonal Climate Outlook	24 April	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,	154	110	44

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		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	28 April	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
PNG – Climate data request	1-30 April	UniTech, Uni Star Engineering & Constructions, PNGCE, Kramer Ausenco, Hebou Constructions Ltd	17	13	4
PNG – Monthly OTML Climate briefing	6 April	Ok Tedi Mine Limited, PNGNWS, BOM	14	11	3
Samoa - EAR Watch workshop	24-28 April	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 Rainfall Outlook	31 April	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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Solomon Islands – Climate bulletin	April	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	April	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	April	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	April	<i>No engagement</i>			
Tuvalu – Climate Bulletin	April	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants  All Kaupule Secretary	29	21	8
Tuvalu – EAR Watch	April	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	29	21	8
Tuvalu – Monthly Climate briefing	April	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	29	21	8
Tuvalu – Ocean Outlook	April	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	29	21	8
Vanuatu- Monthly climate & oceans update Facebook Livestream	26th		297	102	196

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Vanuatu - Zoom meeting	26th		9	2	7
Vanuatu - Facebook summary post	26th		1,358	658	700
Vanuatu - Email version	26th		241	50	191
Vanuatu -Climate Data Request	12 <sup>th</sup> April	Vanuatu National University and VRN Volunteers	47	14	33
<b>Total</b>			<b>3,737</b>	<b>1,942</b>	<b>1832</b>

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