

## Seasonal Prediction Project (SPP)

### Pacific Islands – Ocean and Climate Outlook Forum No. 190 Summary Report

**Date:** Thursday 20 July 2023

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

**Host:** SPREP

**Chair:** Niue

**Apologies:** Cook Islands, Samoa, Palau, NOAA and SPC

**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 **17 August 2023** and is to be chaired by **Papua New Guinea**.

**Participants:**

The Forum was attended by 17 climate officers (6 female) from 11 partner PIC NMSs.

**Cook Islands:**

**Fiji:** Jasneel Chandra, Shweta Shiwanni, Arieta Baleisolomone

**FSM (Chuuk):** Boyd Mackenzie

**FSM (Pohnpei):** Wallace Jacob

**Kiribati:** Mwata Keariki, Kamaitia Rubetaake, Tekaatu Uribano

**Niue:** Raquel Tanaki, Robert Togiamana and Hellen Tukutama

**Papua New Guinea:** Nanao Bouauka and Solace

**Palau:** Kiku Mochimaru

**Republic of Marshall Islands:** Samson Kaneko



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<b>Samoa:</b> Kotoni Faasau, Emannuel Etimani, Junior Lepale and Mathaniah Salesa <b>Solomon Islands:</b> <b>Tonga:</b> Selu Finaulahi, Mele Lakai, Laitia <b>Tuvalu:</b> Kaani Kalepo, Leiti Setefano and Vaitupu Tafue <b>Vanuatu:</b> <b>Australia:</b> Grant Beard, Elise Chandler <b>NOAA:</b> <b>SPREP:</b> Philip Malsale <b>SPC:</b> <b>UNEP:</b> Elisapeta Kerslake	
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OCOF tables were received from 13 participating countries before the meeting.

### Observations of April to June 2023:

Observed rainfall for the one and three-month periods ending June 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
Navua, Fiji	Apr - Jun	441.2	3	79
Pohnpei, FSM	Apr - Jun	1850.7	68	73
Beru, Kiribati	June	350.3	66	66
Butaritari, Kiribati	June	588.1	86	86
Kanton, Kiribati	June	6.4	3	67
Tarawa, Kiribati	June	365.0	73	76
Beru, Kiribati	June	663.9	57	65
Kwajalein, RMI	Apr – Jun	1091.7	75	79
Nauru	June	394.5	74	74
Niue	June	278.7	115	118
Port Moresby, PNG	Apr - Jun	618.0	116	118
Faleolo, Samoa	June	622.2	54	60
Kirakira, Solomon Islands	June	86.0	5	56
Niutoputapu, Tonga	Apr - Jun	914.4	67	70
Funafuti, Tuvalu	June	74.1	2	90
Niulakita, Tuvalu	June	60.5	5	69
Niulakita, Tuvalu	Apr- Jun	310.7	3	71
Aneityum, Vanuatu	June	22.7	1	72
Sola, Vanuatu	Apr- Jun	830.6	2	49
Bauerfield, Vanuatu	Apr- Jun	248.9	4	51
Port Vila, Vanuatu	Apr- Jun	272.5	6	70
Aneityum, Vanuatu	Apr- Jun	475.0	27	71

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

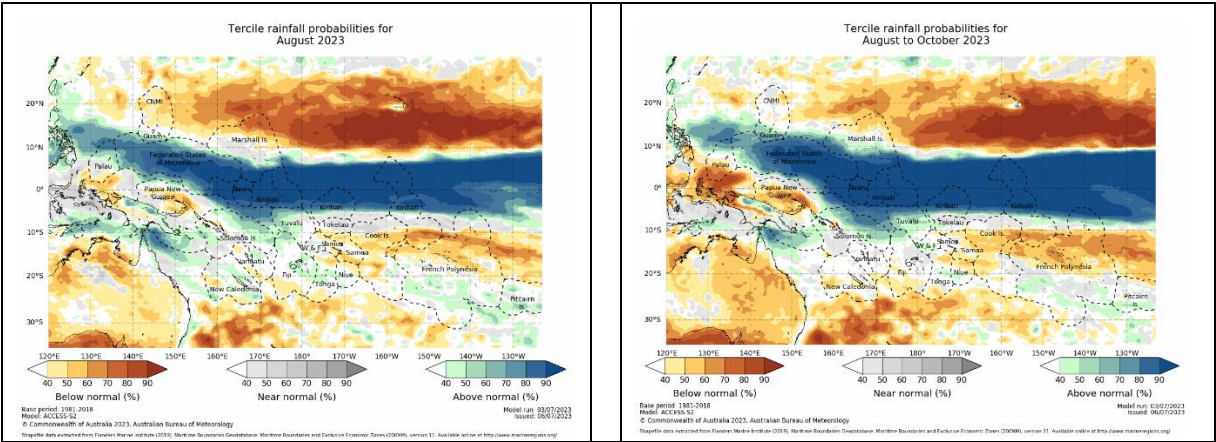
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August to October 2023 Outlooks:

ACCESS-S outlooks:

The equatorial Pacific is warming rapidly, with a 70% chance of El Niño forming this year. This equates to roughly three times the normal chance of an El Niño forming. Central and eastern Pacific sea surface temperatures (SSTs) have warmed to El Niño thresholds.

The ACCESS-S model forecast for August to October 2023, shows above normal is very likely stretching from northern Palau in the west, across FSM, the western and southern Marshall Islands, Nauru, Kiribati (Gilbert Is, north of both Phoenix and Line Is), north and west Tuvalu, far northern Fiji, much of the Solomon Islands, plus PNG's northern mainland and the southeast of its EEZ. Above normal is also likely in small parts of both New Caledonia and southern French Polynesia. The strong band near and north of the equator is consistent with a potential El Niño development. North of this is a wide area where below normal is likely or very likely – this affects the northern Marshall Islands and CNMI. In the southern hemisphere, below normal falls are likely or very likely in the PNG Islands, Vanuatu, patches of Fiji, southern Tonga, and over a broader area affecting American Samoa, much of the Cook Islands, the southern Line Islands, plus some of central and northern French Polynesia.



	41-50%	51-60%	61-70%	71-80%	81-90%	>90%
Below normal						
Near-normal						
Above normal						

July to September 2023				August to October 2023	
	ACCESS-S	C3S	CLIKP	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 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 191 will be hosted by SPREP via zoom on the 17 August 2023.
- Media release regarding El Niño are from SPREP, WMO, Kiribati, Tuvalu, Niue and Vanuatu.
- NMHS are encouraged to document El Niño impacts.

**Observed Rainfall**

Country	June 2023	April to June 2023
Cook Islands		
Fiji	Mostly above normal	Mostly below normal and normal
FSM (Chuuk)	Normal	Above normal
FSM (Pohnpei)	Normal and above normal	Above normal
Kiribati	Mostly above normal	Mostly above normal
RMI	Normal	Normal and above normal
Nauru	Above normal	Above normal
Niue	Above normal	Above normal
Palau	Normal	Normal
Papua New Guinea	Mostly below normal and normal	Below normal and above normal
Samoa	Mostly normal	Mostly above normal
Solomon Islands	Below normal to above normal	Mostly below normal and normal
Tonga	Normal and above normal	Normal and above normal
Tuvalu	Below normal	Mostly below normal
Vanuatu	Below normal and normal	Mostly below normal

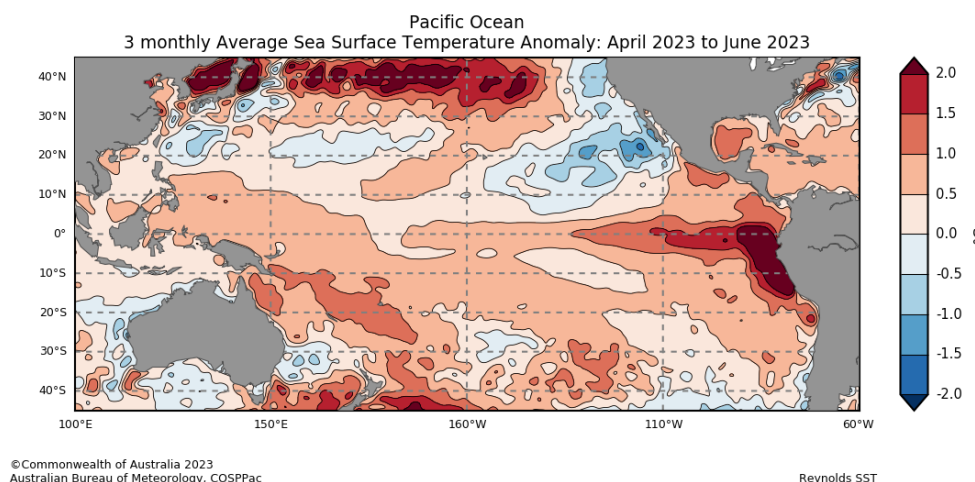
**Ocean Conditions**

**Observations of April to June 2023**

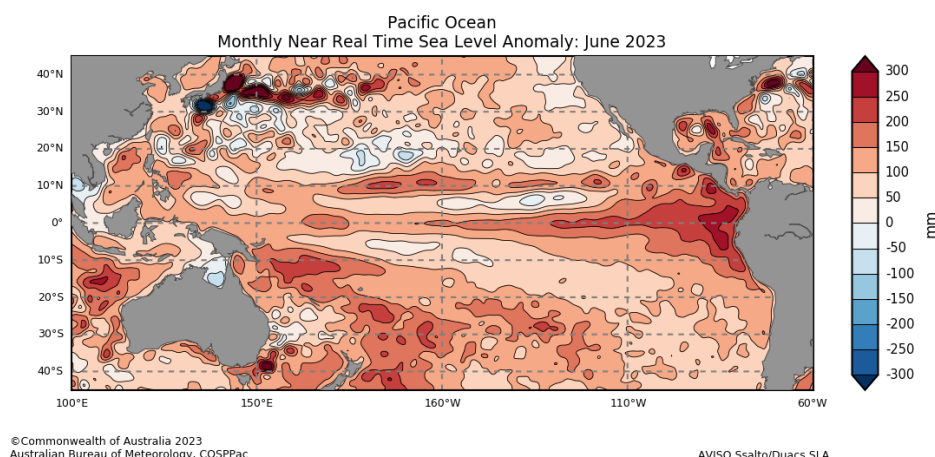
Sea surface temperature:

Three-monthly SST anomalies show above normal temperature over most of COSPPac countries, except near normal temperatures in RMI, Kiribati (eastern Gilbert, southern Phoenix, and parts of northern and central Line Islands), parts of Niue, and southern Cook Islands. Above normal temperatures up to 1.5°C persisted in northern Palau, far western FSM, southern PNG, southern Solomon Islands, Vanuatu, Fiji and southern Tonga.

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June sea level was above normal over most of COSPPac countries, with exception to northern Palau, eastern FSM, northern RMI, and Kiribati (southern Phoenix and parts of northern and southern Line Islands), and far northern Cook Islands where sea level was close to normal. Anomalies above +200 mm were observed in eastern PNG, the Solomon Islands, and in patches of Fiji, northern Vanuatu, and southern Tonga. Sea level was generally 100 mm to 200 mm above average elsewhere.



### August to October 2023 Outlooks:

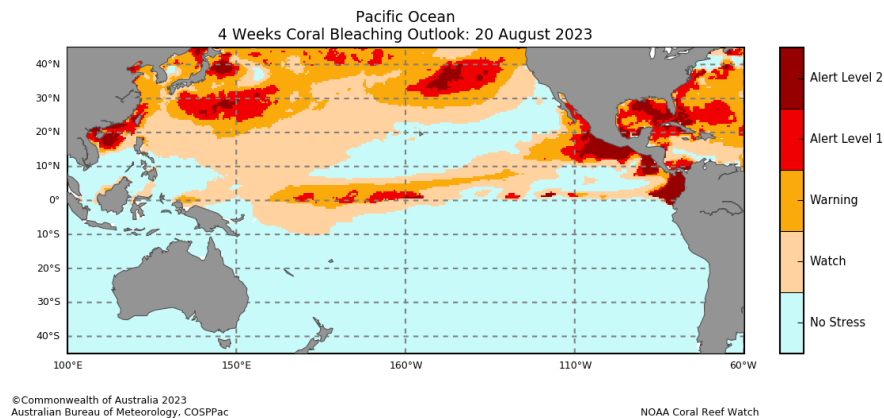
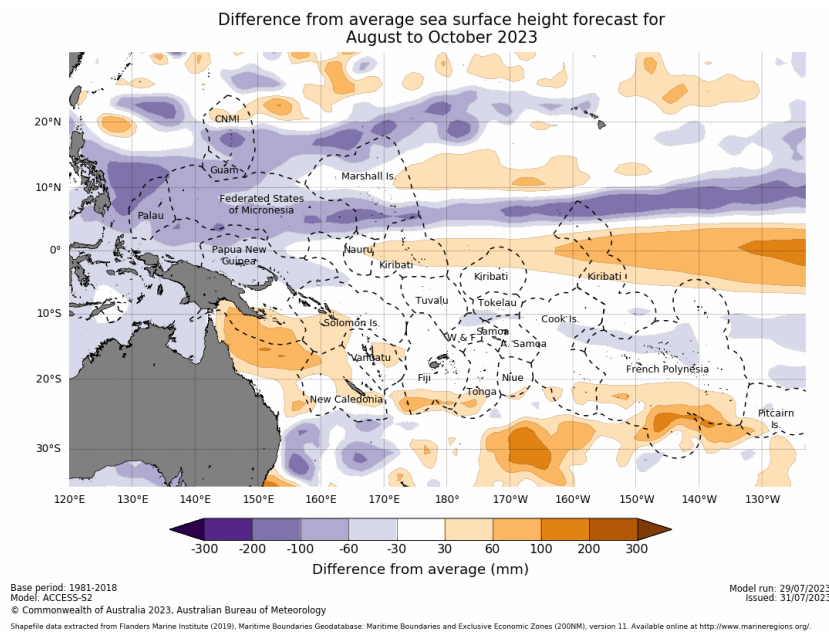
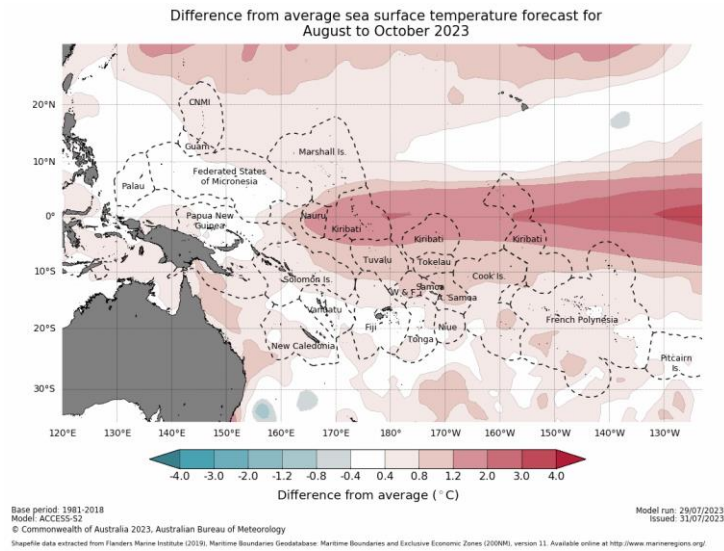
**Sea surface temperature outlook:** SSTs are forecast to be 0.4 to 1.2 °C affecting majority of countries in the western tropical Pacific, with exception of near normal SSTs forecasted for Palau, FSM, northern PNG, Vanuatu, Fiji and central Tonga. SSTs within 1.2 to 3.0 °C above normal are forecasted along the near-equatorial regions of Nauru, and Kiribati (Gilbert, northern Phoenix, and northern to 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 central Line Islands). The second region extends south-eastward from southern PNG to Pitcairn Island, with patches of near normal sea levels over central RMI, Nauru, Tuvalu, northern Solomon Islands, western Vanuatu, Fiji, Tonga, Samoa, Niue, and the majority of Cook Islands. Pools of below average sea levels -30mm to -100mm are predicted for most of RMI, FSM, Palau, northern PNG, southern Tokelau, parts of northern Cook Islands, Kiribati (northern Gilbert, and northern 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 20 August, "Alert Levels 1 and 2" located in eastern Nauru, and Kiribati (northern Gilbert, northern Phoenix, and northern Line Islands). Broad region

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of 'Warning' areas stretching across near-equatorial region, stretching from far southern FSM to northern Line Island Group, Kiribati. 'Watch' status affects FSM, RMI, northern PNG, northern Solomon Islands, and Tuvalu. 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

BN: Below Normal

NN: Near Normal

AN: Above Normal

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

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

Country	Date June  2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – EAR Watch	June	<i>No report</i>			
Fiji - Climate Summary	07 June	General public	140	106	34
Fiji - EAR Watch	09 June	Humanitarian partners	122	96	26
Fiji - Climate Outlook	30 June	General public	124	93	31

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Fiji - Climate Outlook for Monasavu	30 June	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	20 June	A number of key ocean related stakeholders	36	29	7
Fiji – Sugarcane rainfall outlook	30 June	Sugarcane Industry stakeholders	77	60	17
Fiji - Meteorological data request	01-30 June	A range of stakeholders	60	46	14
FSM (Chuuk) - EAR Watch	11 June	DCO	4	2	2
FSM (Pohnpei) - EAR Watch	13 June	Pohnpei Municipal Gov't. Kosrae Municipal Gov't, Pohnpei and Kosrae DCO, Dept. Of Education, Red Cross, Fisheries, Environmental Protection Agency, DECEM, Mayors, Dept. of Public Safety	41	36	5
Kiribati - Climate bulletin	06 June	Government and Non-Government Organisations and public subscribed to the products.	158	68	86
Kiribati - Ocean Bulletin	06 June	Government and Non-Government Organisations and public subscribed to the products.	158	68	86
Kiribati - Media release	06 June	National Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	12 June	Island Council Mayors and clerks, KMS staff	62	35	27
Kiribati -Climate Data Request	1-30 June	Government and Non-Government sectors & High school students	16	6	10
NCOF Tarawa & Kiritimati	13th-14th (Tarawa) 22 & 26th (Kiritimati)	MISE, MICT, MOE, MELAD, KCCI, TTM, NDMO, KRCS, TUC, MIA, MLPID, MFMRD, MHMS, TAK	40	23	13
Marshall Island – Climate briefing	19 June	Office of the Chief Secretary and the National Disaster Management Office	6	3	3
Nauru	June	<i>No engagement</i>			
Niue – Monthly Climate bulletin	29 June	<ul style="list-style-type: none"> <li>Private Sector</li> <li>Government Officials</li> <li>Government staff</li> <li>Stakeholders</li> </ul>	60	30	48
Niue – Monthly Climate Briefing	13 June	Niue High School -Year 10 students	70	22	174



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	15 June 28 June 29 June 30 June	Village councils, private sector, government officials, faith base organisation, girls brigade, boys brigade  Avatele women group			
Palau - EAR Watch	9 June	<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 – PacIOOS	6 June	PacIOOS and WSO Palau	2	0	2
Palau – Governor meeting	12 - 14 June	Aimeliik and Ngaremlengui Offices Ngaraard Office and Gov. Assoc. Koror Office and Aimeliik site visit	26	16	10
Palau – Climate Bulletin	14 June	NEC	28	19	9
Palau - Monthly Climate briefing	14 June	NEC	28	19	9
Palau - Ocean Outlook	14 June	NEC	28	19	9

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Palau – PEAC Climate conference call	09 June	MET Offices, Climate Prediction Center, Drought Monitor for USAPI	10	8	2
Palau -Barometric Pressure data	28-29 June	PPUC	1	0	1
Palau - WFO Guam Regional Conference and Tropical Cyclone Outlook	29 June	Regional Weather, Climate, Tsunami and Emergency partners. Including territorial, national entities, as well as DOD and NGOs.	64	35	29
PNG – Seasonal Climate Outlook	27 June	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.	222	172	50
PNG – Monthly Drought Update	22 June	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.	214	163	51
PNG – Climate data request	1-30 June	TWN Group, Lapwing Construction Ltd, University of Goroka, PNGNWS, Veadi Koita Associates	9	8	1

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PNG – Monthly OTML Climate briefing	9 June	Ok Tedi Mine Limited, PNGNWS, BOM	14	11	3
Samoa - EAR Watch	10 June	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	05 June	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 - Traditional Knowledge Workshop	27 -30 June	Samoa Met	25	20	5
Solomon Islands – Climate bulletin	June	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	June	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

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Solomon Islands - Ocean Bulletin	5 June	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 June	Government ministries. NGOs, Media, Private Sector	155	118	37
Tonga – Ocean Outlook	3 June	Government ministries. NGOs, Media, Private Sector	155	118	37
Tuvalu – Climate Bulletin	June	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants  All Kaupule Secretary	44	23	21
Tuvalu – EAR Watch	June	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – Monthly Climate briefing	June	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – Ocean Outlook	June	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – Climate data request	June	Media	2		2
Vanuatu - Operations Climate Maps training	26 June	-fisheries -Infstructures -Tourism -Water -Climate change dept -Environment dept -VBTC	26	15	11
Vanuatu – El Nino Awareness (Epi Is)	6 June	Lamen bay mini youth convention	112	42	88
Vanuatu - TK validation workshop	10 June	Nikaura Village	42	27	15
Vanuatu - Facebook summary post	26 June	Public	840	310	530

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Vanuatu - Emails	26 June	Public	241	50	191
Total			3,969	2,283	1,907

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