

## Seasonal Prediction Project (SPP)

### Pacific Islands – Ocean and Climate Outlook Forum No. 194 Summary Report

**Date:** Thursday 16 November 2023

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

**Host:** SPREP

**Chair:** Samoa

**Apologies:** SPC, NOAA and PNG

**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 **13 December 2023** and is to be chaired by **Solomon Islands**.

#### Participants:

The OCOF 194 was attended by 21 climate officers (12 female) from 10 partner PIC NMSs.

**Cook Islands:** Bates Manea, and Arona Ngari

**Fiji:** Jasneel Chandra, and Shweta Shiwangni

**FSM (Chuuk):**

**FSM (Pohnpei):** Wallace Jacobs

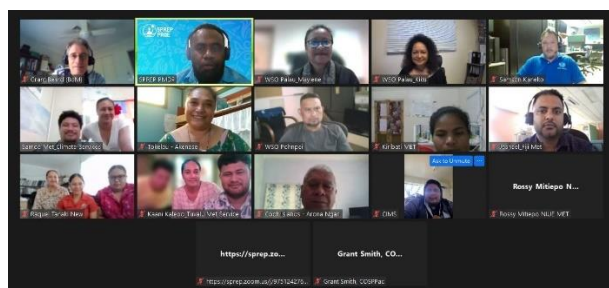
**Kiribati:** Tekaatu Uribano, and Mwata Keariki

**Niue:** Raquel Tanaki, Robert Togiamana, Helen Tukutama, and Rossy Mitiepo

**Papua New Guinea:**

**Palau:** Kiku Mochimaru, and Maylene Joshua

**Republic of Marshall Islands:** Samson Kaneko



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<b>Samoa:</b> Emannuel Etimani, and Taumeasina Fomai <b>Solomon Islands:</b> <b>Tokelau:</b> Akenese Tamiano <b>Tonga:</b> <b>Tuvalu:</b> Kaani Kalepo, Leiti Setefano, Simoea and Viti <b>Vanuatu:</b> <b>Australia:</b> Grant Beard <b>NOAA:</b> <b>SPREP:</b> Philip Malsale <b>SPC:</b>	
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OCOF tables were received from 12 participating countries before the meeting.

### Observations of August to October 2023:

Observed rainfall for the one and three-month periods ending October 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
Penang Mill, Fiji	October	3.8	4	114
Nausori, Fiji	October	49.0	4	67
Tokotoko, Fiji	October	110.0	4	79
Lakeba, Fiji	October	7.0	2	74
Vunisea, Fiji	October	0.7	1	84
Ono-i-Lau, Fiji	October	15.2	6	78
Savusavu, Fiji	October	9.7	1	66
Udu point, Fiji	October	11.0	3	75
Lakeba, Fiji	Aug-Oct	148.0	6	73
Pohnpei, FSM	Aug-Oct	1612.6	72	74
Beru, Kiribati	October	253.6	63	66
Beru, Kiribati	Aug-Oct	699.1	61	65
Kirimati, Kiribati	Aug-Oct	264.0	89	97
Majuro, RMI	October	719.4	6	70
Auki, Solomon Islands	October	385.5	58	61
Kirakira, Solomon Islands	October	529.4	54	56
Lata, Solomon Islands	October	587.2	46	49
Auki, Solomon Islands	Aug-Oct	829.0	56	61
Tarp, Solomon Islands	Aug-Oct	1143.9	40	44
Vava'u, Tonga	October	69.5	3	77
Ha'apai, Tonga	October	11.2	7	77
Fua'amotu, Tonga	October	18.9	1	44
Nuku'alofa, Tonga	October	17.0	3	79
Fua'amotu, Tonga	Aug-Oct	122.8	4	44
Nuku'alofa, Tonga	Aug-Oct	105.0	4	79
Nanumea, Tuvalu	October	394.0	78	82
Niulakita, Tuvalu	Aug-Oct	1052.7	69	71

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

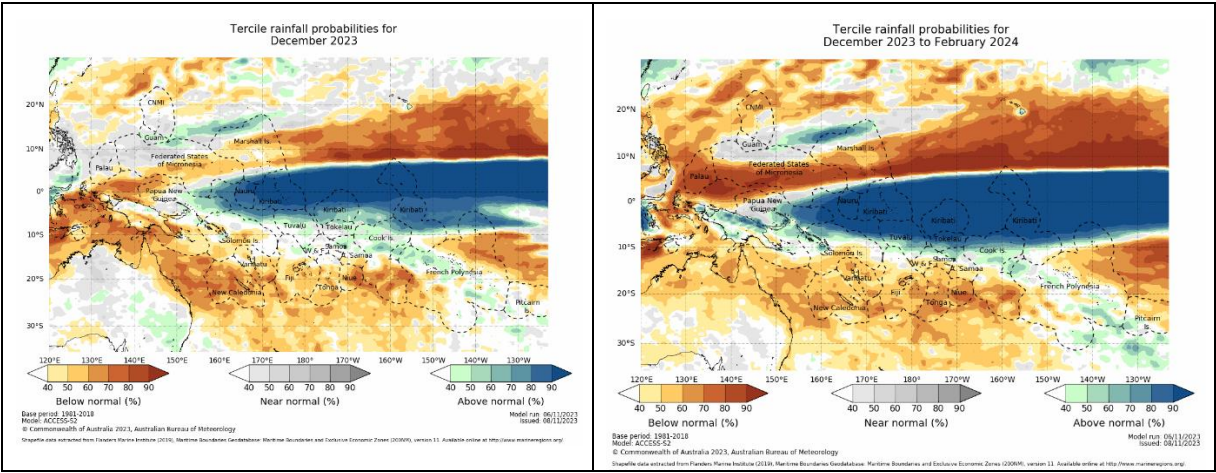
December 2023 to February 2024 Outlooks:

ACCESS-S outlooks:

El Niño continues in the tropical Pacific. Warmer than average sea surface temperatures (SSTs) in the tropical Pacific persist above El Niño thresholds, with warmer water beneath the surface to support that at the surface.

The three-month ACCESS-S rainfall outlook for **December 2023-February 2024** shows rainfall anomalies consistent with a mature El Niño. A region where above normal is very likely affects equatorial regions stretching from far PNG mainland and Islands in the west, western Solomon Islands, southern FSM, across Nauru, the southern Marshall Islands, Kiribati (Gilbert Is, Phoenix Is and much of the Line Is), Tuvalu, far northern Fiji, northern Wallis and Futuna, Tokelau, northern American Samoa, much of the northern Cook Is, parts of French Polynesia, and Pitcairn Islands. Above normal is also very likely, in far northern FSM, plus far northern and RMI.

Wrapping around the equatorial wet zone are regions where below normal is likely or very likely, affecting all remaining COSPPac countries.



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

November 2023 to January 2024				Nov-Jan 23/24		Dec-Feb 23/24	
	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:**

- El Niño and positive Indian Dipole continue.
- OCOF 195 will be hosted by SPREP via zoom on the 14 December 2023. Solomon Islands to be the chair.
- NMHS were encouraged to document El Niño impacts and develop a database for impacts.
- NMHS were encouraged to send in their cyclone outlook media release.

**Observed Rainfall**

Country	October 2023	August to October 2023
<b>Cook Islands</b>	Normal	Below normal
<b>Fiji</b>	Mostly below normal	Below normal to above normal
<b>FSM (Chuuk)</b>	Normal	Normal
<b>FSM (Pohnpei)</b>	Below normal	Normal and above normal
<b>Kiribati</b>	Above normal	Mostly above normal
<b>RMI</b>	Below normal and normal	Below normal
<b>Nauru</b>	<i>No report</i>	
<b>Niue</b>	Normal	Normal
<b>Palau</b>	Below normal	Normal
<b>Papua New Guinea</b>	Below normal to above normal	Below normal to above normal
<b>Samoa</b>	Normal and above normal	Mostly normal
<b>Solomon Islands</b>	Mostly above normal	Normal and above normal
<b>Tonga</b>	Below normal	Mostly below normal
<b>Tuvalu</b>	Above normal	Normal and above normal
<b>Vanuatu</b>	No report	

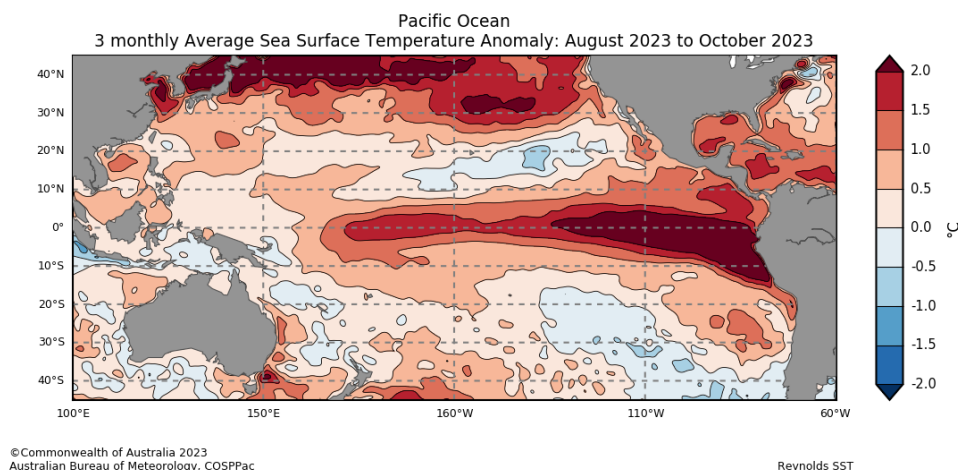
**Ocean Conditions**

**Observations of August to October 2023**

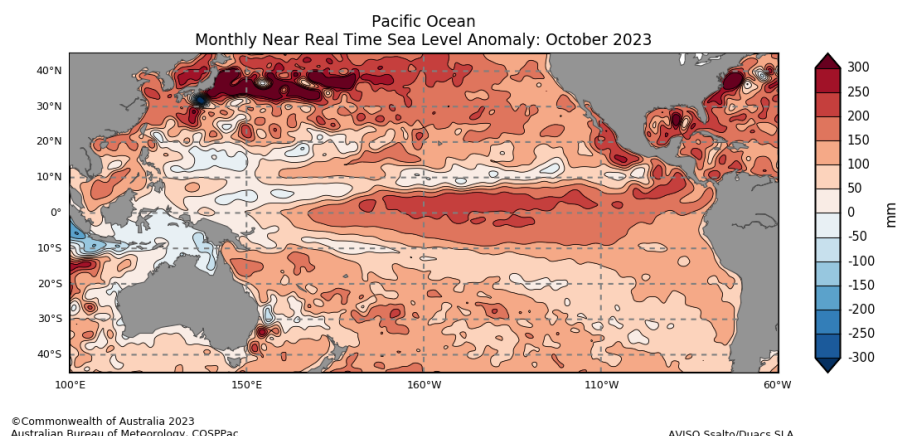
Sea surface temperature:

Three-monthly SST anomalies show above normal temperature over most of COSPPac countries, except for near-normal temperatures in parts of RMI, FSM, Palau, PNG, and Vanuatu. Patches of near normal temperatures observed in Solomon Islands, Fiji, Tonga, and southern Cook Islands. Above normal temperatures up to 2.0°C persisted in central Line Islands, northern Phoenix, and Gilbert Islands of Kiribati, eastern Solomon Islands, northern Fiji, Tuvalu, Samoa, northern Tonga, and most of Cook Islands. Compared with the July to September 2023 SST anomaly pattern, near-equatorial SSTs up to 2.0°C above normal were observed further west into the central Pacific Ocean.

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October sea level was generally above normal over three regions of the Pacific Ocean. The first region is along the 10° North latitude stretching over northern Palau, FSM and RMI ranging in 50mm to 150mm. The second region is along the near-equatorial region spanning from Nauru to central Line Islands of Kiribati ranging from 100mm to 250mm. The third region spans southeastward from southern PNG to southern Cook Islands ranging from 50mm to 250mm. Anomalies above +200mm were observed in southern PNG, southern Solomon Islands, Vanuatu, and Kiribati. Patches of +200mm were also observed in southern Fiji, southern Tonga and southern Cook Islands. Sea levels close to normal were observed in southern FSM, northern PNG, northwestern Solomon Islands, and southern Tuvalu.



### December 2023 to February 2024 Outlooks:

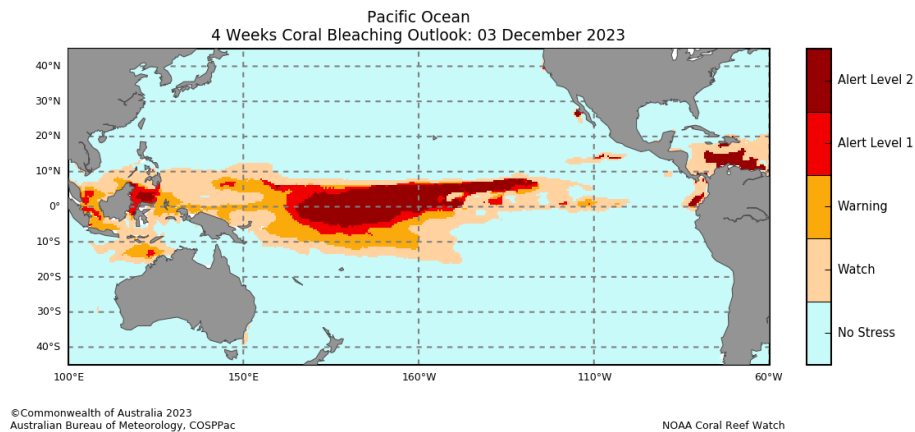
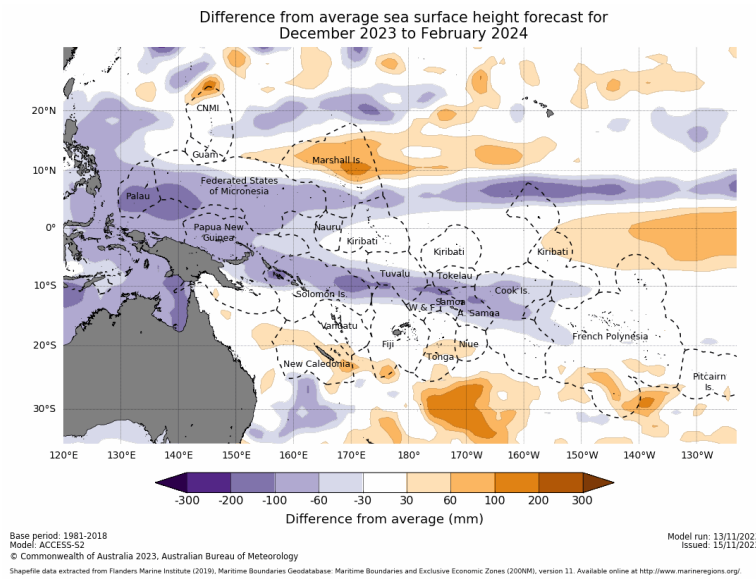
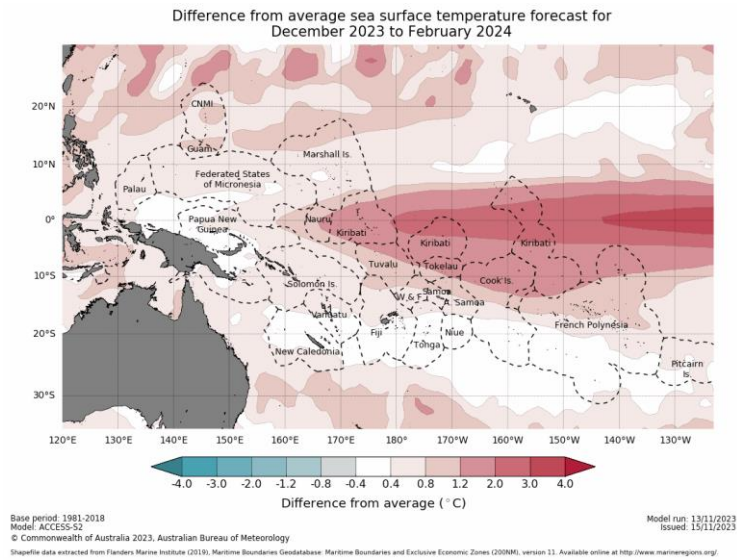
**Sea surface temperature outlook:** SSTs are forecast to be 0.4 to 3.0 °C affecting most of the Pacific Island countries, with exception of near normal SSTs forecast for northern PNG, southern Vanuatu, southern Fiji, Tonga, Niue and southern Cook Islands. Above normal SSTs of 1.2 to 3.0 °C are forecast for Nauru, Kiribati, northern Tuvalu and northern Cook Islands.

**Sea level outlook:** Sea level is forecast to be 30-200mm above normal for northern RMI, central Line Islands of Kiribati, southern Vanuatu, southern Fiji, Tonga and Niue. Sea levels forecast to be 30 to 200mm below normal are located along two regions. The first spanning from Palau to southern RMI. The second stretches southeastward from PNG to northern Cook Islands, which include Solomon Islands, Tuvalu, and Samoa. Remaining countries are forecast to have near-normal sea levels, which are southern Gilbert, Phoenix and parts of Line Islands of Kiribati, most of Vanuatu, most of Fiji, and southern Cook Islands. Note that this outlook does not include trends of sea level rise.

**Coral Bleaching Outlook:** For the four weeks outlook to 3 December, "Alert Levels 1 and 2" forecast in parts of FSM, southern RMI, Nauru, northern Tuvalu and Kiribati (Gilbert, Phoenix, and northern Line

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Islands). Broad region of 'Warning' areas surrounding the 'Alert 1 and 2' regions, forecast to affect FSM, northern PNG, northern Solomon, and southern Tuvalu. 'Watch' status affects Palau, Samoa, and northern Fiji. 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	October 2023	
	SST	SLA
Cook Islands	AN	AN
Fiji	AN, NN	AN
FSM (Chuuk)	AN, NN	NN
FSM (Pohnpei)	AN	AN, NN
Kiribati	AN	AN
Marshall Islands	AN, NN	AN, NN
Nauru	AN	AN
Niue	NN	AN
Palau	NN	AN
Papua New Guinea	NN, BN	NN, AN
Samoa	AN	AN
Solomon Islands	NN, AN	AN
Tonga	NN, AN	AN
Tuvalu	AN	AN, NN
Vanuatu	NN, AN	AN



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

<b>Country</b>	<b>Date October  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	October	No engagement			
Fiji - Climate Summary	09 October	General public	140	106	34
Fiji - EAR Watch	13 October	Humanitarian partners	122	96	26
Fiji - Climate Outlook	29 October	General public	124	93	31
Fiji - Climate Outlook for Monasavu	27 October	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	20 October	A number of key ocean related stakeholders	36	29	7
Fiji – Sugarcane rainfall outlook	31 October	Sugarcane Industry stakeholders	77	60	17
Fiji - ACCESS-S Workshop	16-20 October	NMHS Officers	2	-	2
Fiji - Pacific Climate Outlook Forum- 13	21-23 October	NMHS Officers	2	-	2
Fiji - Meteorological data request	01-31 October	A range of stakeholders	35	32	3
FSM (Chuuk) - EAR Watch	11 October	DCO	5	2	3
FSM (Pohnpei) -	October	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, Pohnpei Utility Corporation.	45	39	6



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Kiribati - Climate bulletin	13 October	Government and Non-Government Organisations and public subscribed to the products.	158	70	88
Kiribati - Ocean Bulletin	13 October	Government and Non-Government Organisations and public subscribed to the products.	158	68	86
Kiribati - Media release	13 October	KMS Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	17 October	Island Council Mayors and clerks, KMS staff	62	35	27
Kiribati -Climate Data Request	1-31 October	Government and Non-Government sectors & High school students	5	0	5
Marshall Island – Climate briefing	18 October	Office of the Chief Secretary and the National Disaster Management Office	6	4	2
Nauru	October	No report			
Niue – Climate bulletin	10 October	Private Sector, Government Officials, Government staff, Stakeholders	30	14	16
Niue -Monthly climate briefing	25 October	Alofi Girls and Boys Brigade Hakupu Women's	43	8	35
Palau – EAR Watch	12 October	WSO Palau and Social Media Platform	13+	9+	4+
Palau -Virtual meetings	12-13 October	WSO Palau, NIWA team, and UNEP PMU-Palau team	13	6	7
Palau - PEAC	13 October	WSO Palau	10	8	2
Palau - Local El Nino Update	3 October	WSO Palau and social media platform	13+	9+	4+
Palau- Weekly Regional Weather Outlook	3 October	NW Pac Region, WSO Palau and social media platform	13+	9+	4+
Palau - Mindanao Earthquake Information Message	4 October	WSO Palau and social media platform	13+	9+	4+
Palau - September 2023 Monthly Rainfall and Average Temperatures	4 October	WSO Palau, WFO Guam, USAPI Drought, CRRF and social media platform	40+	28+	12+
Palau - Honshu earthquake Information Message	5 October	WSO Palau and social media platform	13+	9+	4+

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Palau – EarthQuake	7 October	WSO Palau and social media platform	13+	9+	4+
Palau - PacIOOS virtual meeting	5 October	WSO Palau and PacIOOS	4	2	2
Palau- PacIOOS virtual meeting	9 October	WSO Palau, PacIOOS, and Coral Reef Research Foundation (CRRF)	5	1	4
Palau - Local Video on Special weather statement	9 October	WSO Palau and social media platform	13+	9+	4+
Palau- Special Weather Statement	10 October	WSO Palau and social media platform	13+	9+	4+
Palau- JAMSTEC visit	16 October	WSO Palau	2	1	1
Palau- PacIOOS visit with EPSS	16 October	WSO Palau and PacIOOS	4	3	1
Palau- Workshop: Developing Tailored NMHS AgroMET and Fisheries	16-20 October	WSO Palau (2 reps) and other Pacific Island Countries	2	0	2
Palau- Weekly Regional Weather Outlook	17 October	NW Pac Region, WSO Palau and social media platform	13+	9+	4+
Palau- Redeployment of Ngaraard Bouy	18 October	PacIOOS, WSO Palau and CRRF	5	4	1
Palau – Pacific Climate Outlook Forum	23-25 October	WSO Palau (2 reps) and Pacific Island Countries	2	0	2
Palau – Meeting on El Nino	25 October	WSO Palau, NEC Water Task Force	9	7	2
Palau - Ministry of Finance (MOF) training	28 October	MOF and WSO Palau	31	4	27
Palau - Meeting with the President of Palau on the UNEP project	30 October	WSO Palau MIC and the President	2	1	1

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PNG	October	No report			
Samoa - EAR Watch	26 October	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	25 October	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	October	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	October	Red Cross, NDMO, Ministry of Agriculture, SIBC, Hydrology, Solomon star, Paoa FM, World Vision, Goodridge 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	October	Red Cross, NDMO, Ministry of Agriculture, SIBC, Hydrology, Solomon star, Paoa FM, World Vision, Goodridge Mining, Ministry of Mines and Energy, MEHRD	14	9	5
Solomon Islands – Solomon Islands National Climate Outlook Forum (SINCOF)	31 October -03 November	MECDM, MNPDC, MMERE, UN Women, Solomon Water Authority, DFAT, SIIP, Save the Children, MFAT, Sape Farm, Oxfam, SINU, PICAN, World Vision, COSPPAC, MMERE, UNDRR, SIBC, UNDP, MFAT, FAO, MNPDC, SPREP.	70	52	18
Tonga – Climate Bulletin	3 October	Government ministries, NGOs, Media Private Sector.	155	118	37
Tonga – Ocean Outlook	3 October	Government ministries, NGOs, Media Private Sector.	155	118	37

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Tuvalu – Climate Bulletin	October	MET Staff, Disaster Dept, TRC TuCAN, Agriculture, All Civil Servants, All Kaupule Secretary, media broadcast	45	24	21
Tuvalu – EAR Watch	October	MET Staff, Disaster Dept, TRC TuCAN, Agriculture, All Civil Servants, All Kaupule Secretary	45	24	21
Tuvalu – Climate briefing	October	MET Staff, Disaster Dept, TRC TuCAN, Agriculture, All Civil Servants, All Kaupule Secretary	45	24	21
Tuvalu – Ocean Outlook	October	MET Staff, Disaster Dept, TRC TuCAN, Agriculture, All Civil Servants, All Kaupule Secretary, media broadcast	48	24	24
Vanuatu	October	No engagement			
<b>Total</b>			<b>2,183</b>	<b>1,370</b>	<b>806</b>

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