

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 191 Summary Report

Date: Thursday 17 August 2023

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

Host: SPREP

Chair: Papua New Guinea

Apologies: 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 September 2023** and is to be chaired by **Palau**.

Participants:

The Forum was attended by 17 climate officers (10 female) from 9 partner PIC NMSs.

<p>Cook Islands:</p> <p>Fiji: Jasneel Chandra</p> <p>FSM (Chuuk):</p> <p>FSM (Pohnpei): Wallace Jacob</p> <p>Kiribati: Mwata Keariki, Kamaitia Rubetaake, Tekaatu Uribano</p> <p>Niue: Raquel Tanaki</p> <p>Papua New Guinea: Nanao Bouauka and Solace Kepak</p> <p>Palau: Kiku Mochimaru</p> <p>Republic of Marshall Islands: Samson Kaneko</p>	
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Samoa: Kotonu Faasau, Emannuel Etimani, Taumeasina Fomai and Mathaniah Salesa Solomon Islands: Tonga: Selu Finaulahi and Mele Lakai Tuvalu: Kaani Kalepo Vanuatu: Australia: Grant Beard NOAA: Brandon Bukunt SPREP: Philip Malsale SPC: Judith Giblin	
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OCOF tables were received from 10 participating countries before the meeting.

Observations of May to July 2023:

Observed rainfall for the one and three-month periods ending July 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
Rotuma, Fiji	July	517.9	107	108
Rotuma, Fiji	May - Jul	1109.5	100	107
Chuuk, FSM	May - Jul	1291.8	69	74
Pohnpei, FSM	May - Jul	1231.7	67	73
Kiritimati, Kiribati	July	190.0	93	99
Tarawa, Kiribati	July	593.2	76	76
Arorae, Kiribati	July	324.9	52	57
Beru, Kiribati	May - Jul	838.4	61	64
Butaritari, Kiribati	May - Jul	1290.2	80	85
Kirimati, Kiribati	May - Jul	738.8	95	99
Tarawa, Kiribati	May - Jul	1119.5	74	76
Kwajalein, RMI	July	113.0	2	79
Koror, Palau	July	717.8	69	73
Kavieng, PNG	May - Jul	994.4	85	92
Port Moresby, PNG	May - Jul	383.8	109	113
Apia, Samoa	July	209.3	121	134
Faleolo, Samoa	May - Jul	606.3	60	61
Auki, Solomon Islands	July	358.0	57	62
Honiara, Solomon Islands	July	173.9	62	68
Munda, Solomon Islands	July	792.6	60	62
Munda, Solomon Islands	May - Jul	1450.0	59	61
Taro, Solomon Islands	May - Jul	1133.6	39	43
Niuafo'ou, Tonga	July	232.2	47	51
Niuaatoputapu, Tonga	May - Jul	917.9	72	73
Vava'u, Tonga	May - Jul	637.3	71	77
Ha'apai, Tonga	May - Jul	583.6	75	76
Niulakita, Tuvalu	May - Jul	281.8	3	71

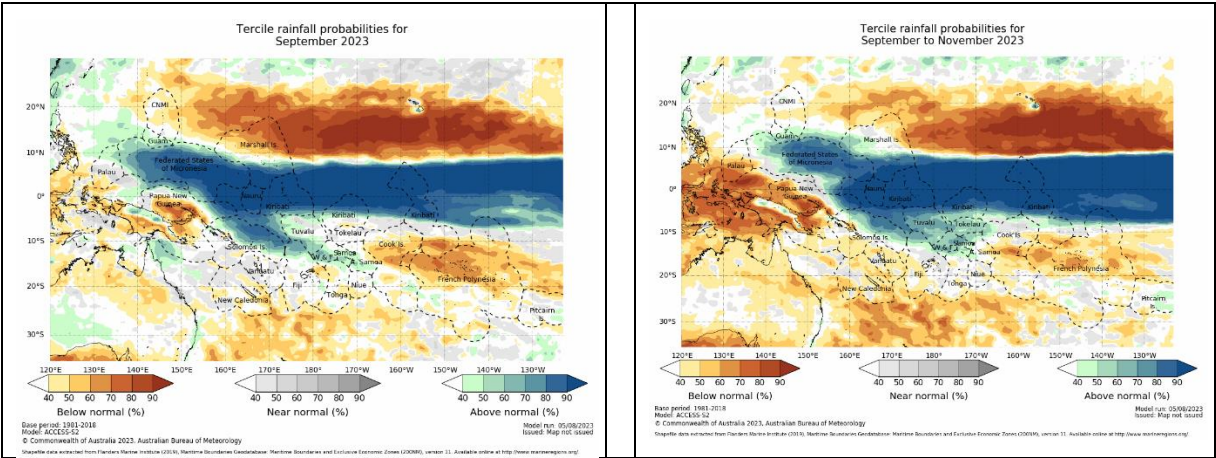
[Note: The above data may not have undergone quality control]

September to November 2023 Outlooks:

ACCESS-S outlooks:

The Bureau's El Niño Alert continues, with El Niño development likely during spring. When El Niño Alert criteria have been met in the past, an El Niño event has developed around 70% of the time.

The ACCESS-S model forecast for September to November 2023, shows above normal is very likely stretching from Guam, across FSM, the western and southern Marshall Islands, northeastern Solomon Islands, Nauru, Kiribati (Gilbert Is, Phoenix and north and central Line Is), Tuvalu, far northern Fiji, Wallis and Futuna, Samoa and Tokelau. Above normal is also likely in small parts of southern CNMI, and the northern PNG mainland. 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 parts of CNMI. Below normal rainfall is also likely or very likely over Palau, most of PNG, western and southern Solomon Islands, New Caledonia, Vanuatu, patches of Fiji, Tonga, Niue, and over a broader area affecting American Samoa, much of the Cook Islands, the southern Line Islands, plus central and northern French Polynesia.



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

	Aug-Oct 2023	Sep-Nov 2023	September to November 2023
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			

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Other matters Discussed:

- El Niño Alert continues with atmospheric indicators suggest the Pacific Ocean and atmosphere are not yet consistently reinforcing each other, as occurs during El Niño events.
- OCOF 192 will be hosted by SPREP via zoom on the 15 September 2023. Palau to be the chair.
- NMHS were encouraged to document El Niño impacts and present during PICOF 13
- NMHS were informed on the ACCESS-S training and PICOF 13 in October 2023

Observed Rainfall

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

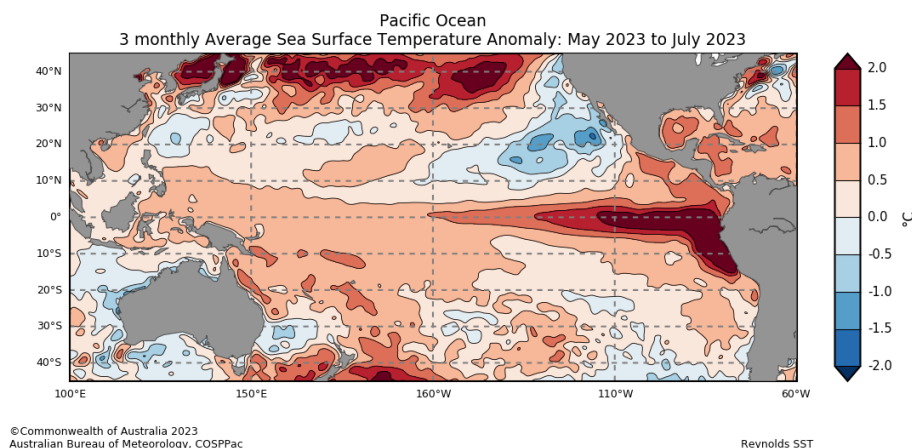
Ocean Conditions

Observations of May to July 2023

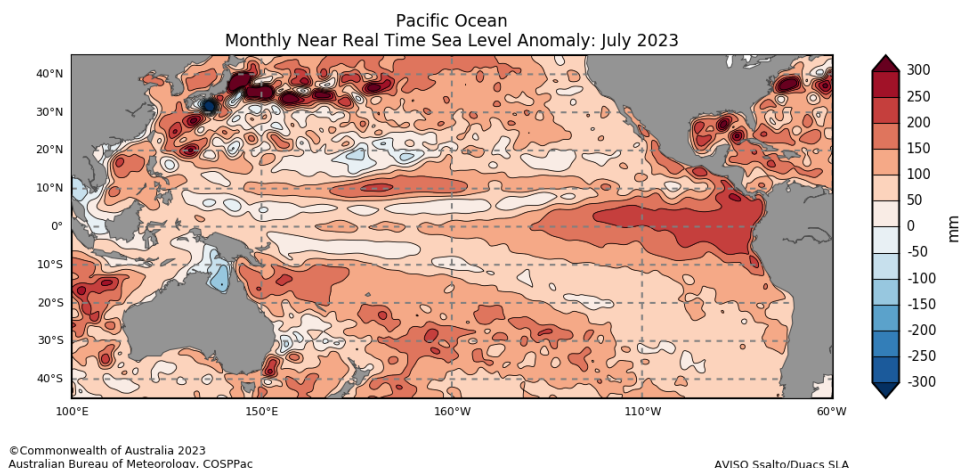
Sea surface temperature:

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

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



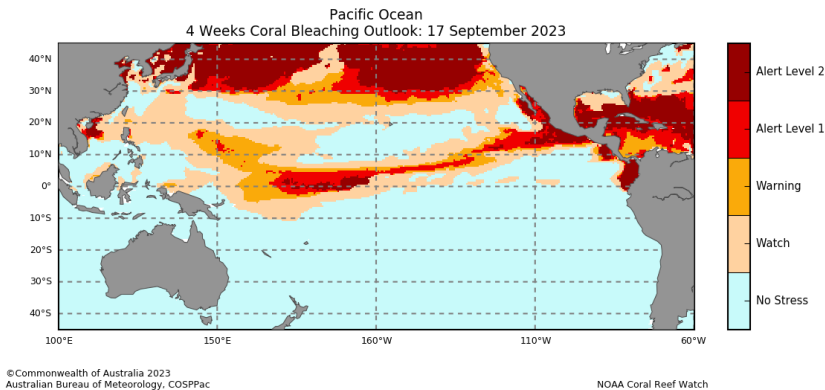
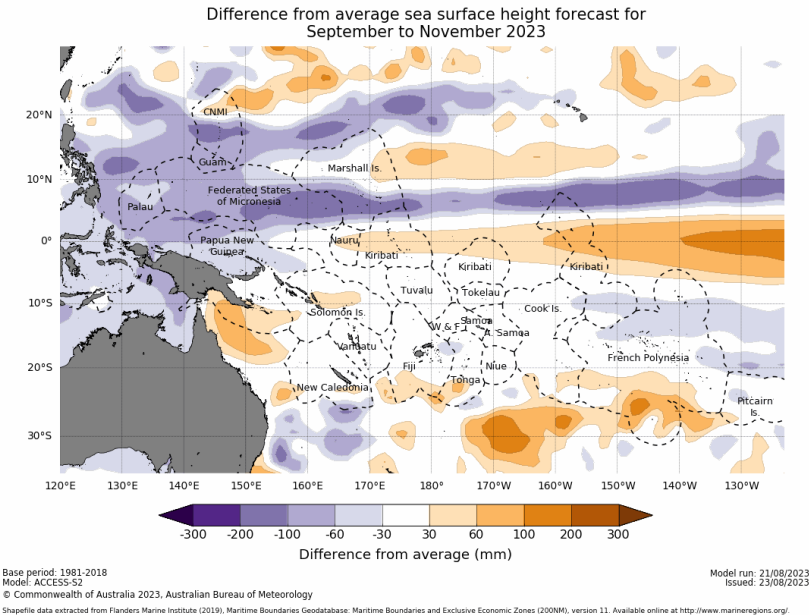
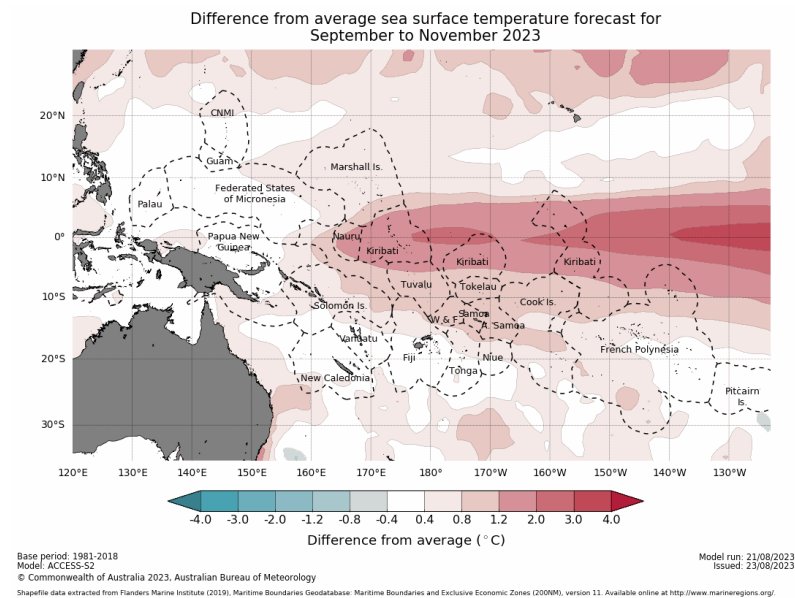
September to November 2023 Outlooks:

Sea surface temperature outlook: SSTs are forecast to be 0.4 to 3.0 °C affecting countries along the near-equatorial region. Above normal SSTs of 1.2 to 3.0 °C are forecasted for Nauru, and Kiribati. Near-normal SSTs are forecasted for Palau, FSM, northern PNG, Vanuatu, southern Fiji, southern Tonga and southern Niue.

Sea level outlook: Sea level is forecast to be 30-100mm above normal for countries along the near-equatorial region, particularly Nauru and Kiribati. Patches of above normal sea levels are also located in southern PNG, central Solomon Islands, southern Fiji and southern Tonga. Below normal sea levels forecasted to be -30 to -200mm in PNG, Palau, FSM, and southern RMI. Remaining countries forecasted for 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 17 September, "Alert Levels 1 and 2" located in eastern Nauru, and Kiribati (Gilbert, northern Phoenix, and northern Line Islands), patches in far northern FSM and patches in far southern RMI. Broad region of 'Warning' areas surrounding the 'Alert 1 and 2' regions. '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	AN
Fiji	AN	AN
FSM (Chuuk)	NN	NN, AN
FSM (Pohnpei)	AN	AN, NN
Kiribati	AN	AN
Marshall Islands	AN, NN	AN
Nauru	AN	AN
Niue	AN	AN
Palau	NN	AN, NN
Papua New Guinea	AN	AN
Samoa	AN	AN
Solomon Islands	AN	AN
Tonga	AN	AN
Tuvalu	AN	AN, NN
Vanuatu	AN, NN	AN

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

Country	Date July 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – EAR Watch	July	<i>No report</i>			
Fiji - Climate Summary	07 July	General public	140	106	34
Fiji - EAR Watch	11 July	Humanitarian partners	122	96	26
Fiji - Climate Outlook	31 July	General public	124	93	31
Fiji - Climate Outlook for Monasavu	28 July	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	19 July	A number of key ocean related stakeholders	36	29	7
Fiji – Sugarcane rainfall outlook	31 July	Sugarcane Industry stakeholders	77	60	17
Fiji - Meteorological data request	01-30 June	A range of stakeholders	35	31	4
FSM (Chuuk) - EAR Watch	10 July	DCO	4	2	2
FSM (Pohnpei) - EAR Watch	12 July	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	43	37	6
FSM (Pohnpei) - Data Request	01-31 July	DECEM	2	1	1
Kiribati - Climate bulletin	06 July	Government and Non-Government Organisations and public subscribed to the products.	158	68	86
Kiribati - Ocean Bulletin	06 July	Government and Non-Government Organisations and public subscribed to the products.	158	68	86
Kiribati - Media release	06 July	National Media and KMS Staffs	53	23	30

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Kiribati – EAR Watch	06 July	Island Council Mayors and clerks, KMS staff	62	35	27
Kiribati -Climate Data Request	1-31 July	Government and Non-Government sectors & High school students	21	9	12
Marshall Island – Climate briefing	17 July	Office of the Chief Secretary and the National Disaster Management Office	7	4	3
Nauru	July	<i>No report</i>			
Niue	July	<i>No Report</i>			
Palau - Peleliu AWS site visit	2 July	WSO, NEMO, UNDP representatives	7	5	2
Palau-NSPWWCS' meeting on implementation plan	5 July	WSO and UNEP Climate Consultant	4	0	4
Palau - Meeting on Additional Upper Air launches for the Study on Air-Sea interaction over tropical Western North Pacific	5 July	JAMSTEC and WSO	3	2	1
Palau - Malakal Tide Gauge on NOAA Tides and Currents website	7 July	WSO and global platform	15	10	5
Palau - EAR Watch	11 July	WSO and FB social media platform	15	10	5
Palau - Weather Brief	11 July	U.S. Army	2	2	0
Palau-NSPWWCS' meeting on implementation plan	12 July	WSO and UNEP Climate Consultant	4	0	4
Palau-Weather Brief via email	12 July	Belau Marine Transportation	2	2	0
Palau-NIWA AWS technical training in New Zealand	14-30 July	WSO EPSs	2	2	0
Palau-Monitoring of Tropical Disturbance Invest 98W and live broadcast on Gov radio	16 July	WSO and NEMO	4	2	2

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Palau-Weather Brief	17 July	U.S. Army	2	2	0
Palau-Weather Brief	18 July	U.S. Army	2	2	0
Palau-Local Climate and Ocean Outlook	18 July	WSO	15	10	5
Palau-Weather Brief	19 July	U.S. Army	1	1	0
Palau-Weather Brief	20 July	U.S. Army	1	0	1
Palau-Weather Brief	21 July	U.S. Army	1	1	0
Palau-Local Weather Bulletin	21 July	WSO	15	10	5
Palau-Weather Brief by WSO and NEMO	25 July	Government TV, Radio and Social Media	2	1	1
Palau-Weather and Tsunami meeting	31 July	WFO Guam and ITIC meeting with WSO, NEMO and Palau Red Cross	6	2	4
PNG – Monthly OTML Climate briefing	30 July	Ok Tedi Mine Limited, PNGNWS, BOM	14	11	3
PNG – Climate Data Request	1-31 July	DHV Engineers, BECE International, NARI, Paga Hill, Student (University of Goroka), PNGNWS, Student (University of Southern Queensland)	7	5	2
Samoa - EAR Watch	10 July	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 July	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	July	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	July	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	5 July	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	12 July	General Public	100	65	35
Tonga – Ocean Outlook	12 July	Government ministries. NGOs, Media, Private Sector	100	65	35
Tonga – Climate data request	1-31 July	Various stakeholders and academia	25	20	5
Tuvalu – Climate Bulletin	31 July	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – EAR Watch	2 July	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – Monthly Climate briefing	July	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – Ocean Outlook	2 July	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants	44	23	21

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		All Kaupule Secretary			
Vanuatu	<i>July</i>	<i>No report</i>			
Total			1,835	1,145	682

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