

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 192 Summary Report

Date: Friday 15 September 2023

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

Host: SPREP

Chair: Palau

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 **19 October 2023** and is to be chaired by **Samoa**.

Participants:

The Forum was attended by 19 climate officers (11 female) from 11 partner PIC NMSs.

Cook Islands:

Fiji: Jasneel Chandra and Shweta Shiwangni

FSM (Chuuk): Boyd Mackenzie

FSM (Pohnpei):

Kiribati: Tekaatu Uribano

Niue: Raquel Tanaki, Jedaiah Tukuitonga, Helen Tukutama and Sean Tukutama

Papua New Guinea: Solace Kepak

Palau: Kiku Mochimaru

Republic of Marshall Islands:

Samoa: Koton Faasau, Emmanuel Etimani, and Junior Lepale



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Solomon Islands: Max Sitai Tonga: Mele Lakai Tuvalu: Kaani Kalepo, Leiti Setefano and Vaitupu Tafue Vanuatu: Glenda Pakoa Australia: Grant Beard NOAA: Brandon Bukunt SPREP: Philip Malsale SPC: Judith Giblin	
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OCOF tables were received from 12 participating countries before the meeting.

Observations of June to August 2023:

Observed rainfall for the one and three-month periods ending August 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
Udu Point, Fiji	August	398.0	74	74
Laucala Bay, Fiji	Jun - Aug	854.9	79	82
Udu Point, Fiji	Jun - Aug	619.5	71	73
Rotuma, Fiji	Jun - Aug	1059.8	99	106
Beru, Kiribati	August	259.9	60	66
Kiritimati, Kiribati	August	142.9	94	99
Beru, Kiribati	Jun - Aug	877.4	62	64
Kirimati, Kiribati	Jun - Aug	508.7	94	99
Tarawa, Kiribati	Jun - Aug	1105.5	76	77
Hanan Airport, Niue	August	247.7	109	116
Hanan Airport, Niue	Jun - Aug	810.2	115	116
Koror, Palau	Jun - Aug	1547.8	66	72
Vanimo, PNG	August	337.8	67	68
Wewak, PNG	Jun - Aug	305.8	4	68
Faleolo, Samoa	August	102.8	5	56
Kirakira, Solomon Islands	August	358.0	57	62
Vava'u, Tonga	August	307.6	76	77
Funafuti, Tuvalu	August	106.0	9	91
Whitegrass, Vanuatu	August	163.6	49	52
Aneityum, Vanuatu	August	269.7	70	72

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

October to December 2023 Outlooks:

ACCESS-S outlooks:

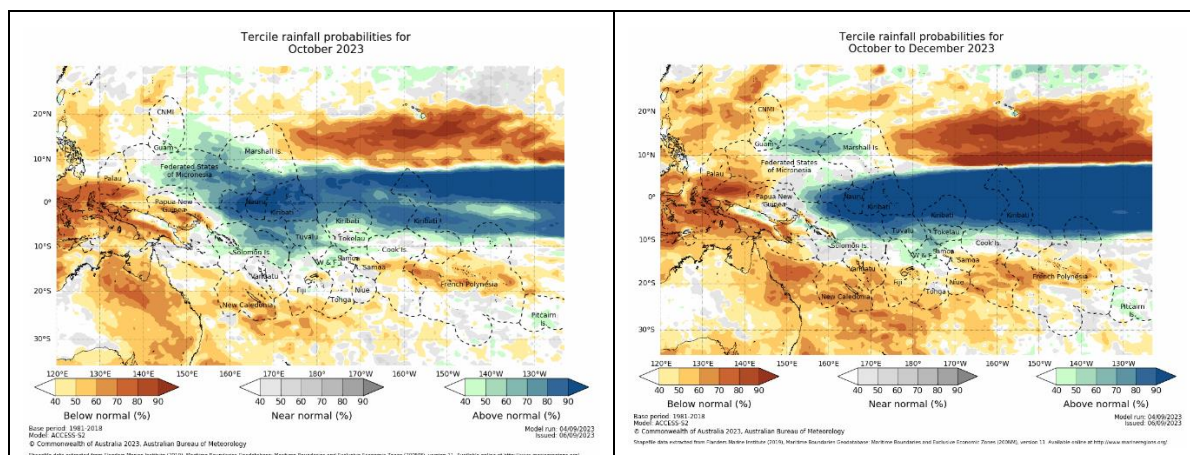
The Bureau's El Niño Alert continues, with El Niño development likely during spring. When El Niño Alert criteria have been met in the past, an El Niño event has developed around 70% of the time.

The main feature of the three-month ACCESS-S rainfall outlook for **October-December 2023** is a region where above normal is very likely stretching from Guam and eastern FSM in the west, across western Marshall Islands, the far east of PNG, northern Solomon Islands, Nauru, Kiribati (Gilbert Is, Phoenix Is

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plus northern and central Line Is), Tuvalu, far northern Fiji, Wallis and Futuna, northern American Samoa, Tokelau, and the far north of both the Cook Islands and 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 far eastern Marshall Islands. Below normal rainfall is also likely or very likely over PNG (except for small patches in the northern mainland), Palau, western FSM, the Maritime Continent, Australia, New Caledonia, Vanuatu, central and southern Fiji (including the main islands), central and southern Tonga, Niue, Samoa, much of American Samoa, central and southern Cook Islands, parts of the southern Line Islands, plus western and central French Polynesia.



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

September to November 2023				2023		2023
ACCESS- 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 Alert continues with atmospheric indicators suggest the Pacific Ocean and atmosphere will couple in the next few weeks.
- OCOF 193 will be hosted by SPREP via zoom on the 19 October 2023. Samoa to be the chair.
- NMHS were encouraged to document El Niño impacts and present during PICOF 13

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- NMHS were informed to register for the ACCESS-S training and PICO 13 in October 2023

Observed Rainfall

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

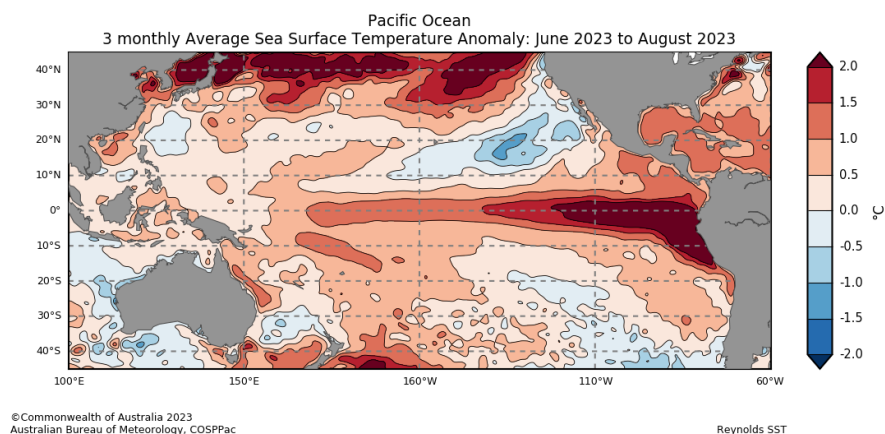
Ocean Conditions

Observations of June to August 2023

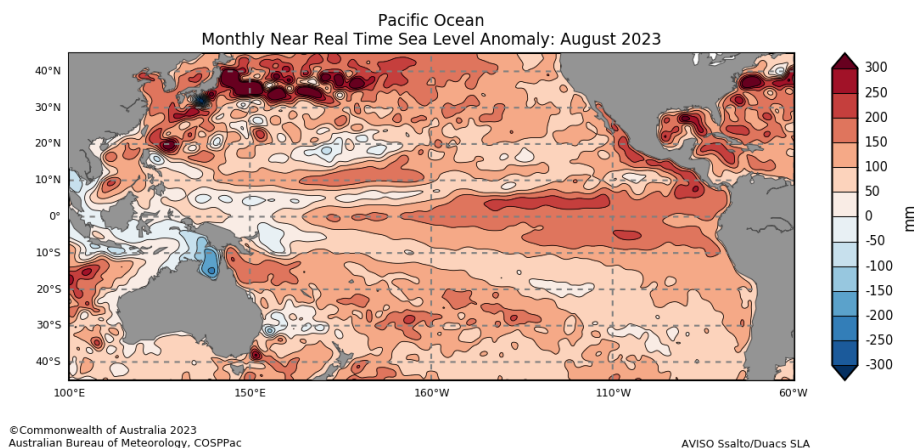
Sea surface temperature:

Three-monthly SST anomalies show above normal temperature over most of COSPPac countries, except for near-normal temperatures in parts of RMI, FSM, Palau, northern Line Islands of Kiribati, northern PNG, and parts of Vanuatu. Above normal temperatures up to 1.5°C persisted in central Line Islands and Gilbert Islands of Kiribati, eastern Solomon Islands, northern Fiji, southern Tuvalu, western Samoa and northern Tonga. Compared with the May to July 2023 SST anomaly pattern, near-equatorial SSTs up to 1.5°C above normal were observed further west into the central Pacific Ocean in the June to August 2023 period.

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August sea level was generally 50mm to 200mm 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. 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, southern Solomon Islands, Gilbert and central Line Islands of Kiribati. Patches of +200mm were also observed in southern Fiji, southern Tonga and southern Cook Islands. Sea levels close to normal were observed in eastern Palau, southern FSM, northern PNG and northwestern Solomon Islands.



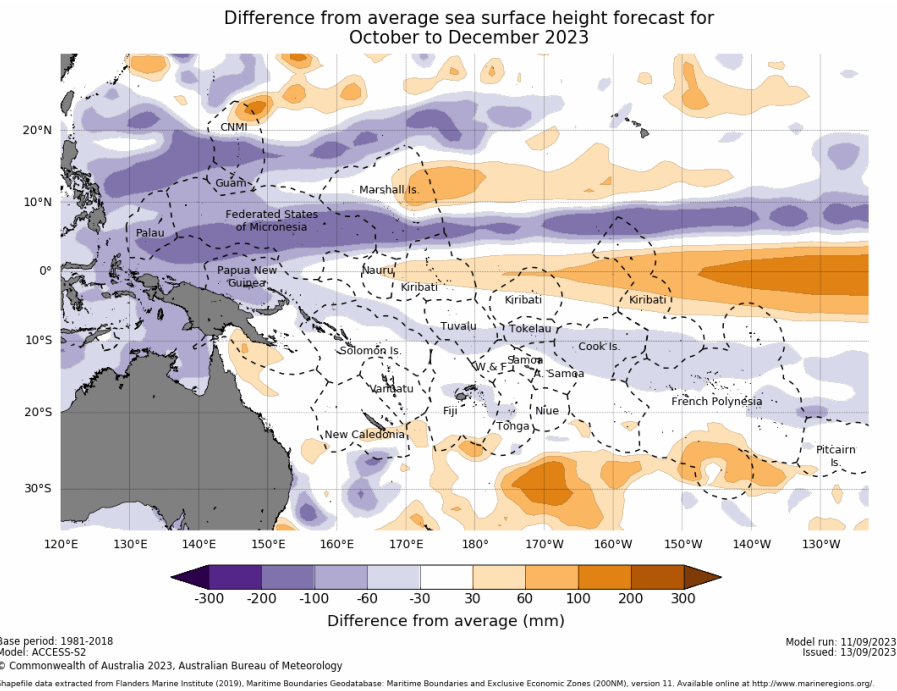
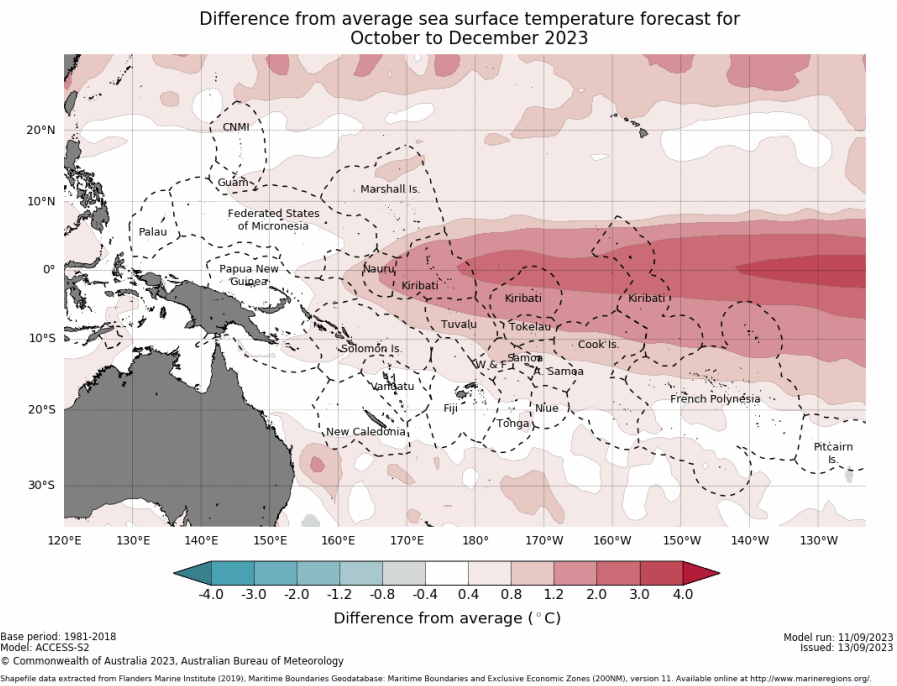
October to December 2023 Outlooks:

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 forecast for Nauru, and Kiribati. Near-normal SSTs are forecast for Palau, FSM, northern PNG, Vanuatu, Fiji, southern Tonga, southern Niue, and far southern Cook Islands.

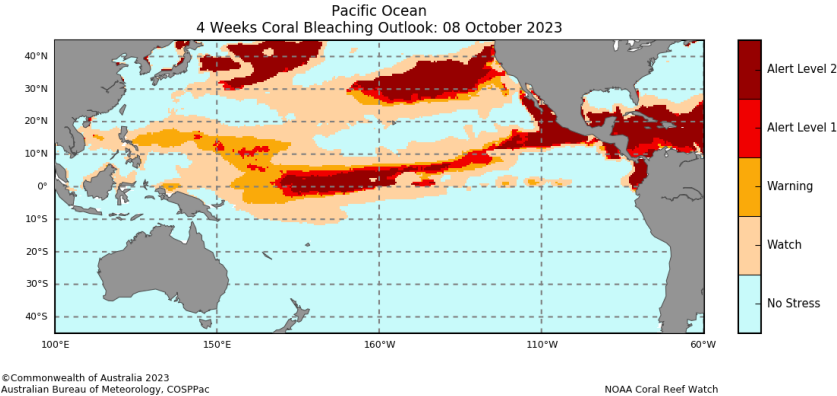
Sea level outlook: Sea level is forecast to be 30-100mm above normal for countries along the near-equatorial region, particularly Nauru and Kiribati. Patches of above normal sea levels are also located in northern RMI, southern PNG, and far southern Tonga. Sea levels forecast to be 30 to 200mm below normal in PNG, Palau, FSM, southern RMI, northeastern Solomon, southern Tuvalu, northern Cook Islands, and patches in Fiji and patches in Tonga. Remaining countries are forecast to have 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 8 October, "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	AN
Papua New Guinea	AN, BN	AN, BN
Samoa	AN	AN
Solomon Islands	NN, AN	AN, BN
Tonga	AN	AN
Tuvalu	AN	AN, NN
Vanuatu	NN	AN

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

Country	Date August 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – EAR Watch	August	No report			
Fiji - Climate Summary	08 August	General public	140	106	34
Fiji - EAR Watch	11 August	Humanitarian partners	122	96	26
Fiji - Climate Outlook	31 August	General public	124	93	31
Fiji - Climate Outlook for Monasavu	30 August	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	18 August	A number of key ocean related stakeholders	36	29	7
Fiji – Sugarcane rainfall outlook	31 August	Sugarcane Industry stakeholders	77	60	17
Fiji - Meteorological data request	01-31 August	A range of stakeholders	42	34	8
Fiji - Meteorological Council Meeting and Third Pacific Ministerial Meeting on Meteorology	14-18 August	Meteorological Directors and Ministers and Donor partners	200		
FSM (Chuuk) - EAR Watch	11 August	DCO	4	2	2
FSM (Pohnpei) -	August	No report			
Kiribati - Climate bulletin	12 August	Government and Non-Government Organisations and public subscribed to the products.	158	68	86

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Kiribati - Ocean Bulletin	12 August	Government and Non-Government Organisations and public subscribed to the products.	158	68	86
Kiribati - Media release	12 August	KMS Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	17 August	Island Council Mayors and clerks, KMS staff	62	35	27
Kiribati -Climate Data Request	1-31 August	Government and Non-Government sectors & High school students	8	1	7
Marshall Island – Climate briefing	18 August	Office of the Chief Secretary and the National Disaster Management Office	6	4	2
Nauru	August	No report			
Niue	August	Private Sector, Government Officials, Government staff, Stakeholders	50	20	30
Palau - WFO Guam and PRH station visit and inventory check.	1 August	WSO Palau	14	6	8
Palau-Rock Island trip and scenic observations.	2 August	PRH, WFO Guam and WSO Palau	16	8	8
Palau - “Organizational Health Blueprint” training by PRH	3 August	WSO Palau	14	6	8
Palau - Weather update video on the monsoon event in Palau	5 August	NWS Micronesia WhatsApp participants; observers and forecasters	23	4	19
Palau - AWS meeting	7 August	EPSs and Governors of Aimeilik and Koror	3	3	0
Palau - EAR Watch	8 August	WSO and FB social media platform	15	10	5
Palau -	8 August	EPSs	2	2	0

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AWS site location inspection in Ngeremlengui					
Palau-UN Dept. of Safety and Security visit at WSO Palau	9 August	Field Associate, IOM rep, Staff MET, Admin Assistant, WSS on shift	4	1	3
Palau-UNDP meeting with EPSs, NEMO reps for Peleliu AWS installation	14-18 August	EPS, NEMO and UNDP rep	7	7	0
Palau-Enhancing Climate Information and Knowledge Services for Resilience in 5 Pacific countries (UNEP CIS-Pac5)	23 August	MIC, Staff MET, AA and Programme coordinator for UNEP project	5	0	5
Palau-Climate data request ; Koror data: Jan 2020-July 2023 and Airai 2004 to 2023	24-25 August	Coral Reef Research Foundation; Director, Lab Manager/Research Biologist, Boatman/Collector, Research biologists, Associate Research Biologists, Research assistants, Mapping Specialist, GIS Analyst	11	6	5
Palau-Enhancing Climate Information and Knowledge Services for Resilience in 5 Pacific countries (UNEP CIS-Pac5) meeting	25 August	MIC, Staff MET, AA and Programme coordinator for UNEP project, Technical Advisor for GCF/UNEP Pacific Climate Resilience Programme for the Red Cross Red Crescent Climate Center and UNEP Project Manager Unit under ROP Bureau of Budget and Planning	8	0	8
Palau-UNEP Project meeting	28 August	Similar partners listed above	6	0	6
Palau-Climate bulletin Outlook	28 August	WSO Palau and Social Media	15	10	5
Palau-Ocean bulletin and outlook	28 August	WSO Palau and Social Media	15	10	
PNG – Seasonal Climate Outlook	15 August	Govt: National Disaster Centre, Dept. of Agriculture and Livestock, Climate	222	172	50

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		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.			
PNG – Monthly OTML Climate briefing	11 August	Ok Tedi Mine Limited, PNGNWS, BOM	14	11	3
Samoa - EAR Watch	31 August	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 August	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	August	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

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Solomon Islands – EAR Watch	August	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	August	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 August	General Public	100	65	35
Tonga – Ocean Outlook	12 August	Government ministries. NGOs, Media, Private Sector	100	65	35
Tonga – Climate data request	1-31 August	Various stakeholders and academia	25	20	5
Tuvalu – Climate Bulletin	31 August	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – EAR Watch	31 August	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Tuvalu – Ocean Outlook	31 August	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	44	23	21
Vanuatu	August	No engagement			
Total			2,259	1,275	771

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