

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 189 Summary Report

Date: Thursday 15 June 2023

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

Host: SPREP

Chair: Kiribati

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 **20 July 2023** and is to be chaired by **Niue**.

Participants:

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

Cook Islands:

Fiji: Jasneel Chandra

FSM (Chuuk): Boyd Mackenzie

FSM (Pohnpei): Wallace Jacob

Kiribati: Mwata Keariki

Niue: Raquel Tanaki

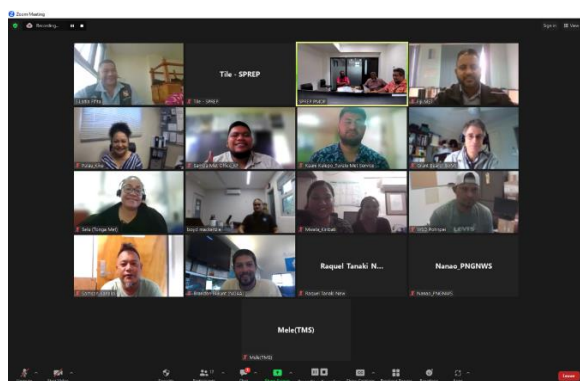
Papua New Guinea: Nanao Bouauka

Palau: Kiku Mochimaru

Republic of Marshall Islands: Samson Kaneko

Samoa: Koton Faasau, Emannuel Etimani,
Junior Lepale and Mathaniah Salesa

Solomon Islands:



Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Tonga: Selu Finaulahi, Mele Lakai, Laitia Tuvalu: Kaani Kalepo and Limoni Mativa Vanuatu: Australia: Grant Beard SPREP: Philip Malsale and Tile Tofaeono SPC: NOAA: Brandon Bukunt	
---	--

OCOF tables were received from 12 participating countries before the meeting.

Observations of March to May 2023:

Observed rainfall for the one and three-month periods ending May 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
Laucala bay (Suva), Fiji	Mar - May	518.8	3	82
Nausori Airport, Fiji	Mar - May	530.4	3	67
Navua, Fiji	Mar - May	466.0	1	79
Ono-i-Lau, Fiji	Mar - May	316.7	9	74
Savusavu, Fiji	Mar - May	454.4	8	64
Chuuk, FSM	May	547.9	69	75
Pohnpei, FSM	May	737.1	68	73
Kiritimati, Kiribati	May	737.0	98	99
Kwajalein, RMI	May	588.8	77	79
Kwajalein, RMI	Mar – May	952.0	72	79
Nauru	May	340.0	66	71
Port Moresby, PNG	May	247.0	130	131
Nadzab, PNG	Mar - May	221.6	4	45
Port Moresby, PNG	Mar - May	734.0	125	126
Faleolo, Samoa	May	381.3	61	62
Faleolo, Samoa	Mar - May	781.0	57	61
Henderson, Solomon Islands	May	202.4	44	47
Taro, Solomon Islands	May	399.0	44	46
Niuafo'ou, Tonga	May	362.0	48	52
Niuaatoputapu, Tonga	May	644.4	73	73
Vava'u, Tonga	May	357.6	73	77
Ha'apai, Tonga	May	338.8	73	76
Niuaatoputapu, Tonga	Mar - May	1116.4	67	68
Nanumea, Tuvalu	Mar - May	343.2	7	81
Niulakita, Tuvalu	Mar - May	387.3	3	71

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

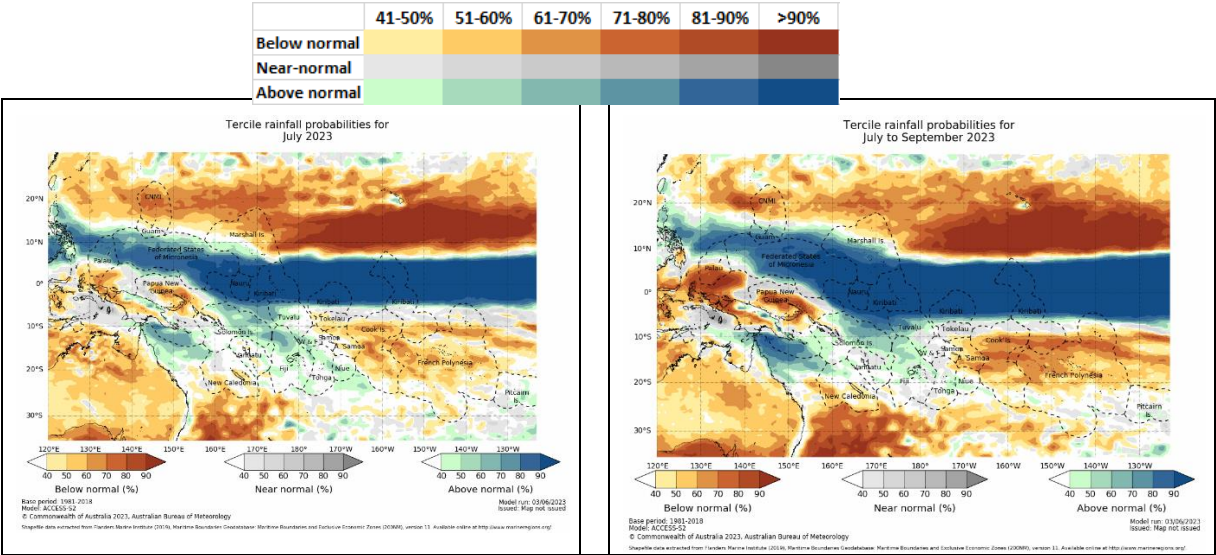
July to September 2023 Outlooks:

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.

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

The ACCESS-S model forecast for July to September 2023, favours below normal rainfall for parts of PNG's Highlands and Islands regions, northern RMI, New Caledonia, and in a zone from Samoa across the southern Line Islands, much of the Cook Islands to French Polynesia. Above normal rainfall is likely or very likely for northern Palau, Guam, FSM, central and southern RMI, PNG's northern mainland and the southeast of its EEZ, eastern Solomon Islands, Nauru, most of Kiribati, the northern half of Fiji, northern Tuvalu, patches of Vanuatu, Tonga, Niue, and Pitcairn Islands.



June to August 2023				Jun-Aug		Jul-Sep	
ACCESS- C3S CLIKP				ACCESS-S			
Cook Is North							
Cook Is South							
Fiji Vest							
Fiji Central							
Fiji East							
Fiji North							
Fiji Rotuma							
FSM Vest							
FSM Central							
FSM East							
Kiribati Vest							
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							

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Other matters Discussed:

- OCOF 190 will be hosted by SPREP via zoom on the 20 July 2023
- NMS are encouraged to develop media release on El Niño event.
- NMS are encouraged to develop national ENSO directive.
- Welcome the participation of FSM, Nauru and new officers from Tuvalu.

Observed Rainfall

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

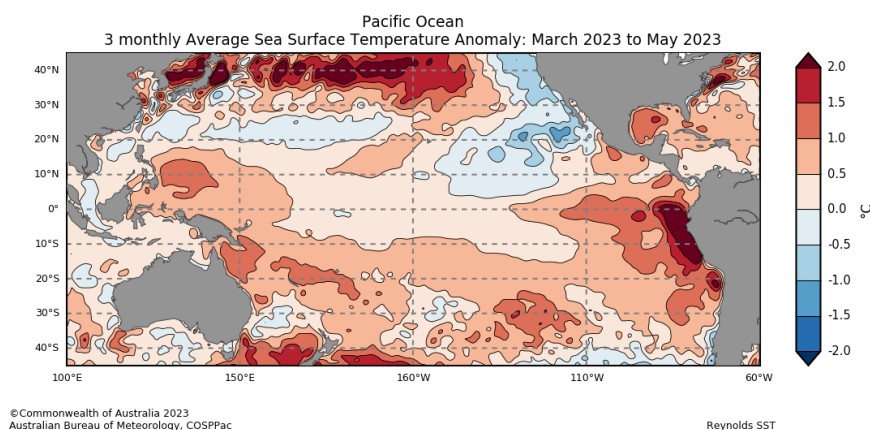
Ocean Conditions

Observations of March to May 2023

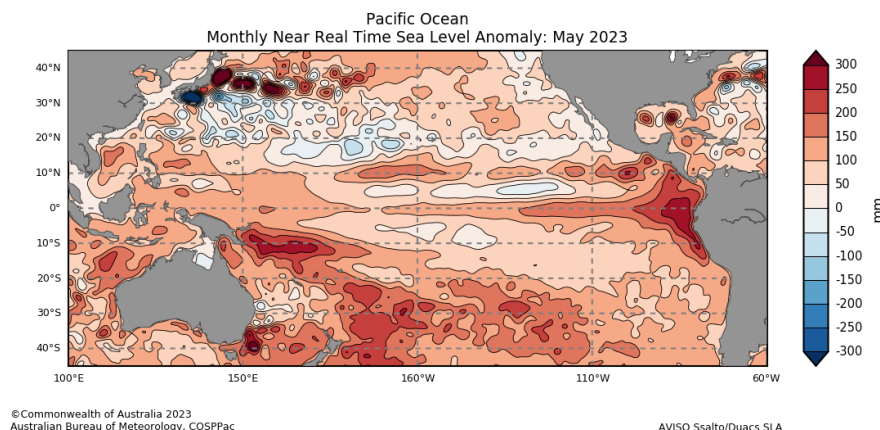
Sea surface temperature:

Three-monthly SST anomalies show near normal temperatures along the near-equatorial regions including Nauru, Kiribati, Marshall Islands, northern Tuvalu, Niue, 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.

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)



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



July to September 2023 Outlooks:

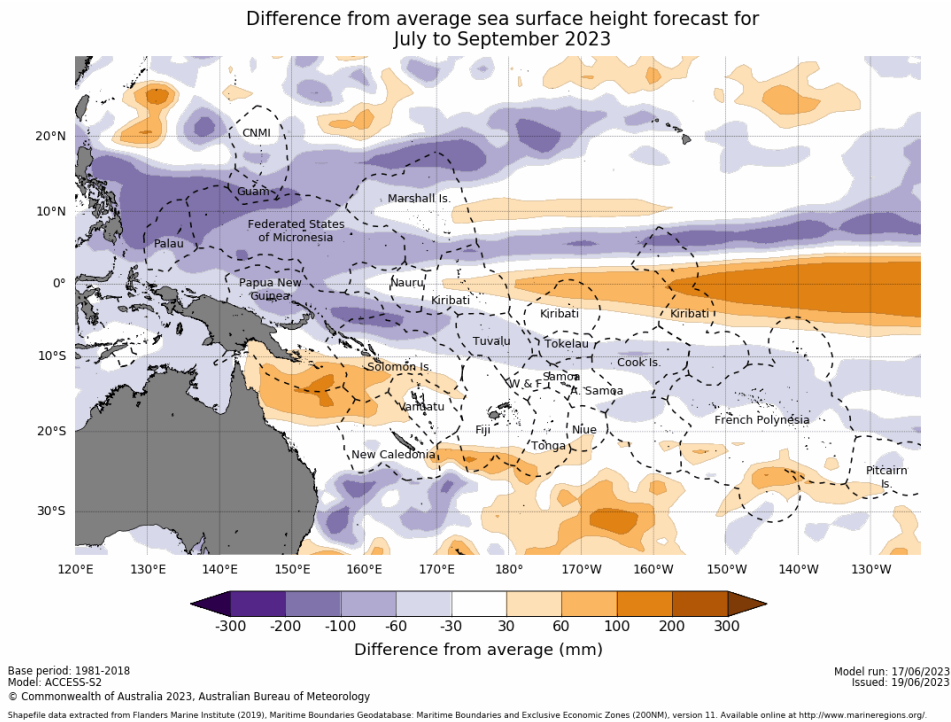
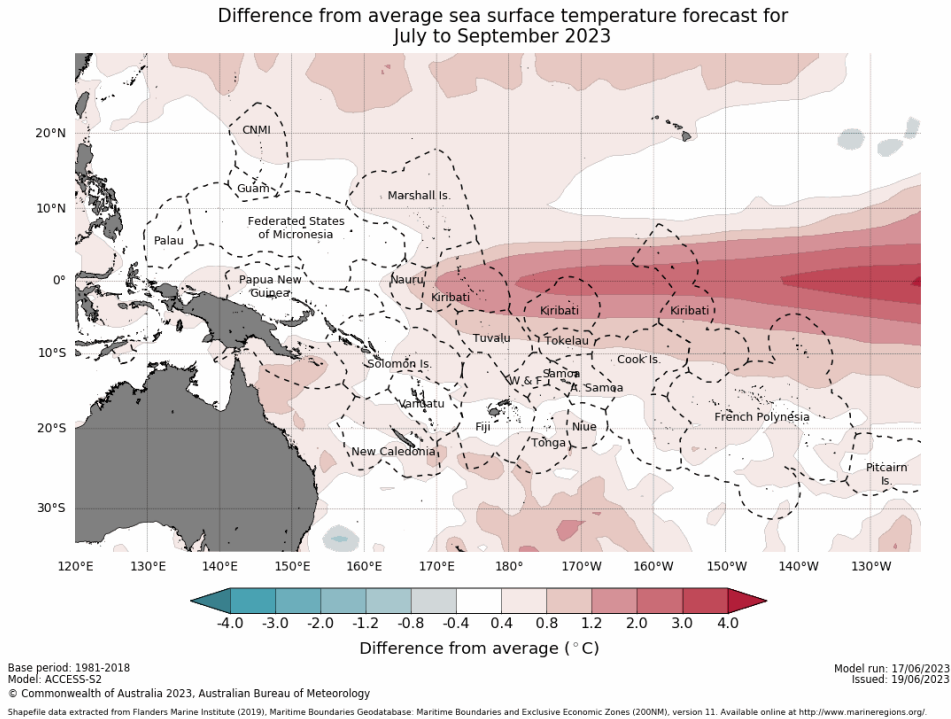
Sea surface temperature outlook: SSTs are forecast to be 0.4 to 1.2 °C affecting majority of countries in the western tropical Pacific, with exception of Palau, FSM, Vanuatu, Fiji and northern PNG forecasted with near normal SSTs. SSTs within 0.8 to 1.2 °C are forecasted for southeastern PNG, southeastern New Caledonia, Nauru, northern Tuvalu, and northern Cook Islands. SSTs within 1.2 to 2.0 °C above normal are forecasted along the near-equatorial regions particularly Kiribati (Gilbert, northern Phoenix 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 central Line Islands). The second region extends southeastward from southeastern PNG to Pitcairn Island, with patches of near normal sea levels over Nauru, Vanuatu, Fiji, Tonga, Samoa, Niue, and majority of Cook Islands. Sea level anomalies from 100-200mm above normal are forecasted for far southeastern PNG, and central Line Islands, Kiribati. Pools of below average sea levels –30mm to –100mm are predicted for most of RMI, FSM, Palau, Tuvalu, Tokelau, northern Cook Islands, Kiribati (southern Line Islands), and northern French Polynesia. Note that this outlook does not include trends of sea level rise.

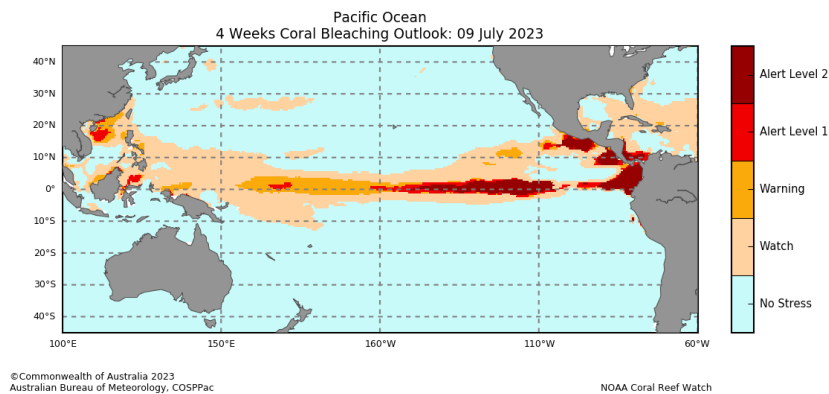
Coral Bleaching Outlook: For the four weeks outlook to 9 July, "Alert Levels 1 and 2" located in PNG, Nauru, and Kiribati (northern Gilbert and northern Line Islands). Broad region of 'Warning' areas stretching across near-equatorial region, stretching from southern FSM to northern Line Island Group,

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Kiribati. 'Watch' status affects Palau, FSM, southern RMI, northern PNG, Solomon Islands, and Tuvalu. The remaining countries are predicted to experience "no thermal stress".



Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)



Observed Conditions

SST: sea surface temperature anomaly
SLA: sea level anomaly
BN: Below Normal
NN: Near Normal
AN: Above Normal

Country	May 2023	
	SST	SLA
Cook Islands	AN, NN	AN
Fiji	AN	AN
FSM (Chuuk)	AN	AN
FSM (Pohnpei)	AN, NN	AN
Kiribati	AN	AN
Marshall Islands	AN, NN	AN
Nauru	AN	AN
Niue	NN	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

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

Country	Date May 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – EAR Watch	May	<i>No report</i>			
Fiji - Climate Summary	05 May	General public	140	106	34
Fiji - EAR Watch	08 May	Humanitarian partners	122	96	26
Fiji - Climate Outlook	31 May	General public	124	93	31
Fiji - Climate Outlook for Monasavu	30 May	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	19 May	A number of key ocean related stakeholders	36	29	7
Fiji – Sugarcane rainfall outlook	31 May	Sugarcane Industry stakeholders	77	60	17
Fiji -ENSO Update	25 May	General Public	142	116	26
Sub-regional ROK-PI CLiPs 2 Climate Prediction Tools Training	01-05 May	Pacific Island National Meteorological Services	18	16	2
Fiji - Meteorological data request	01-31 May	A range of stakeholders	42	34	8
FSM (Chuuk) - EAR Watch	05 May	DCO	4	2	2
FSM (Pohnpei) - EAR Watch	16 May	Red Cross, Dept. Of Education, Disaster Coordinating Office (DCO), Environmental Protection Agency, Pohnpei	5	5	0
Kiribati - Climate bulletin	11 May	Government and Non-Government Organisations and public subscribed to the products.	118	45	73

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Kiribati - Ocean Bulletin	11 May	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati - Media release	11 May	National Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	11 May	Island Council Mayors and clerks, KMS staff	62	35	27
Kiribati -Climate Data Request	May	High Schools	9	5	45
Marshall Island – Climate briefing	19 May	Office of the Chief Secretary and the National Disaster Management Office	6	3	3
Nauru	May	<i>No engagement</i>			
Niue – Monthly Climate bulletin	29 May	<ul style="list-style-type: none"> Private Sector Government Officials Government staff Stakeholders 	50	20	30
Niue – Monthly Climate Briefing	16 May 18 May 23-24 May 31 May	Niue High School -Year 10 students Village councils, private sector, government officials, faith base organisation, girls brigade, boys brigade	310	136	174
Palau - EAR Watch	10 May	<ul style="list-style-type: none"> National Emergency Committee (NEC) Office of the Vice President Office of the President NEMO Coordinator National Weather Service Bureau of Budget and Planning Bureau of Tourism Bureau of Commercial Development Attorney General's Office Bureau of Youth, Applied Arts and Careers Bureau of Public Health Bureau of Public Work Bureau of Public Safety Palau Community College Bureau of Education Administration Palau Public Utility Corporation Palau National Communication Corporation Bureau of Foreign Affairs& Trade Bureau of Domestic Affairs Bureau of Agriculture Governors Association Palau Red Cross Society Environment Quality Protection Board Bureau of Aviation Division of Property and Supply Palau Chamber of Commerce Palau Visitor's Authority 	28	19	9

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

		Bureau of Customs & Boarder Protection • Koror State Government			
Palau – PacIOOS	1 May	PacIOOS and WSO Palau	2	0	2
Palau – NEC Water Task Force	2 May	NEMO, PPUC and WSO Palau	4	2	2
Palau – Radio show	4 May	NEMO, PPUC and WSO Palau	4	2	2
Palau - Pacific ENSO Applications Climate	12 May	North Pacific participants	10	8	2
Republic of Korea (ROK) CLiPs 2 Climate Predictions Tools Training for Micronesian Members	22-26 May	FSM, RMI, Nauru and WSO Palau	13	12	1
PNG – Seasonal Climate Outlook	30 May	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	26 May	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	214	163	51

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

		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 – Climate data request	1-31 May	Insurance Loss adjustors, Kramer Ausenco, Consultant	5	4	1
PNG – Monthly OTML Climate briefing	8 May	Ok Tedi Mine Limited, PNGNWS, BOM	14	11	3
Samoa - EAR Watch	30 May	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 – Ocean Outlook	22 May	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 May	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	May	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

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Solomon Islands – EAR Watch	May	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 May	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 May	Government ministries. NGOs, Media, Private Sector	155	118	37
Tonga – Ocean Outlook	3 May	Government ministries. NGOs, Media, Private Sector	155	118	37
Tuvalu – Climate Bulletin	May	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	29	21	8
Tuvalu – EAR Watch	May	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	29	21	8
Tuvalu – Monthly Climate briefing	May	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	29	21	8
Tuvalu – Ocean Outlook	May	MET Staff Disaster Dept TRC TuCAN Agriculture All Civil Servants All Kaupule Secretary	29	21	8
Tuvalu – Climate data request	May	Disaster department	2	1	1
Vanuatu		<i>No report</i>			
Total			2,713	1,771	983

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