

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 184 Summary Report

Date: Thursday 19 January 2023

Time: Australian Eastern Daylight-Saving Time at 12:00PM (01:00 UTC)

Host: SPREP

Chair: Tonga

Apologies: Cook Islands, Kiribati, PNG, SPC and Solomon 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
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 February 2023** and is to be chaired by **Tuvalu**.

Participants:

The Forum was attended by 16 climate officers (10 female) from 7 partner PIC NMSs.

Cook Islands:

Fiji: Arieta Baleisolomone and Shweta Shiwangni

Kiribati:

Niue: Clemencia Sionehalo, Jedaiah Togiamana, Helen Tukutama

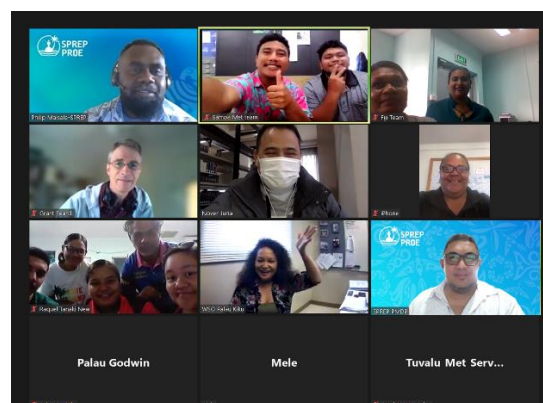
Papua New Guinea:

Palau: Kiku Mochimaru

Republic of Marshall Islands: Nover Juria and Samson Kanenko

Samoa: Kotoni Faasau, Mattaniah Salesa and Taumensina Fomai

Solomon Islands:



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Tonga: Mele and Selusalea Tuvalu: Simoea Tiute, Aaron Puafitu and Leiti Setefano Vanuatu: Australia: Grant Beard SPREP: Philip Malsale and Tile Tofaeono SPC:	
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OCOF tables were received from 10 participating countries before the meeting.

Observations of October to December 2022:

Observed rainfall for the one and three-month periods ending December 2022 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
Nadi, Fiji	December	390.5	76	81
Tokotoko, Fiji	December	139.0	8	77
Ono-i-Lau, Fiji	December	506.2	74	75
Nadi, Fiji	Oct-Dec	702.6	74	80
Ono-i-Lau, Fiji	Oct-Dec	807.4	74	75
Rotuma, Fiji	Oct-Dec	598.2	10	106
Beru, Kiribati	December	5.0	5	66
Arorae, Kiribati	December	0.5	3	56
Beru, Kiribati	Oct-Dec	21.2	5	65
Arorae, Kiribati	Oct-Dec	10.2	2	56
Port Moresby, PNG	December	281.3	128	132
Wewak, PNG	Oct-Dec	312.8	3	65
Kavieng, PNG	Oct-Dec	458.6	6	94
Niuafo'ou, Tonga	December	71.2	2	50
Nuku'olofa, Tonga	December	386.5	74	78
Niuafo'ou, Tonga	Oct-Dec	244.7	2	48
Ha'apai, Tonga	Oct-Dec	863.0	74	76
Fua'amotu, Tonga	Oct-Dec	697.7	40	43
Nuku'olofa, Tonga	Oct-Dec	745.7	72	77

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

February to April 2023 Outlooks:

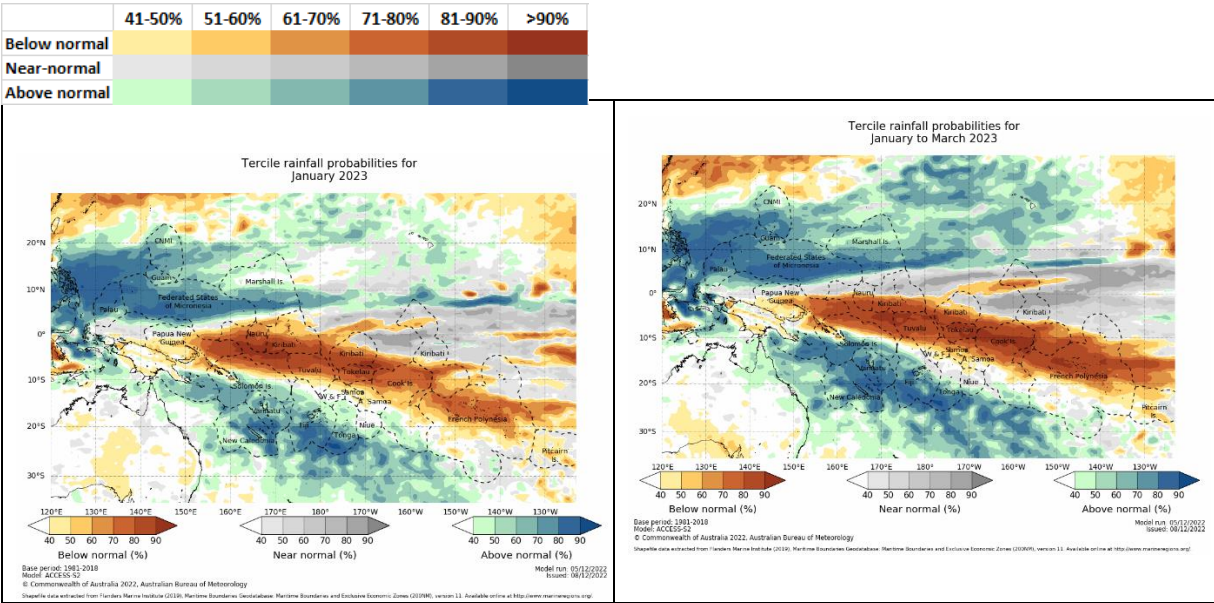
ACCESS-S outlooks:

The ACCESS-S for February to April 2023 shows aspects of a mature La Niña pattern, with a large region where below normal rainfall is very likely stretching from northern PNG in the west, to the southern Line Islands, French Polynesia, and Pitcairn Island in the east.

To the southwest of this region, the ACCESS model shows the opposite signal, that is, moderate to high chances for above average rainfall in a band stretching southeast from the southeast islands of PNG, the southern Solomon Islands, New Caledonia, Vanuatu, Fiji (excluding Rotuma), southern Tonga, southern Niue, and the far southern Cook Islands. Above normal is also favoured across Palau, FSM and RMI (except the far south of both FSM and RMI).

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Blank (white) cells in the tables below indicate the chance is <40% in all categories – so it could be "little guidance" (e.g. 30/36/34), or near-equal in two categories (e.g. 39/37/24).



January to March 2023			
	ACCESS-S	C3S	CLIKP
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			

	Jan-Mar 2023	Feb-Apr 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		

Other matters Discussed:

- OCOF 185 will be hosted by SPREP via zoom on the 15 February 2023
- NMHS to document La Niña impacts

Observed Rainfall

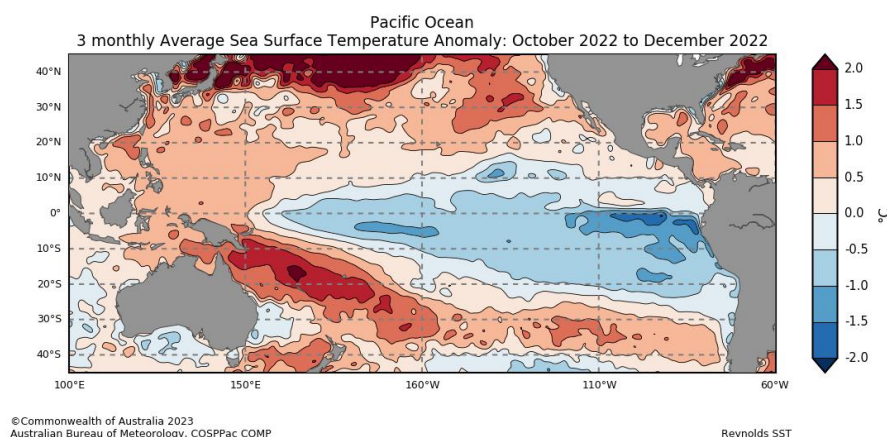
Country	December 2022	October to December 2022
Cook Islands		
Fiji	Mainly normal to above normal	Mostly normal to above normal
Kiribati	Mostly below normal	Mostly below normal
RMI	Normal	Normal and above normal
Niue	Normal	Normal
Palau	Below normal	Above normal
Papua New Guinea	Below normal to above normal	Mostly normal to below normal
Samoa	Below normal to above normal	Below normal to above normal
Solomon Islands	Mostly normal to above normal	Mostly normal to above normal
Tonga	Mostly above normal	Mostly above normal
Tuvalu	Mostly normal	Mostly below normal
Vanuatu		

Ocean Conditions

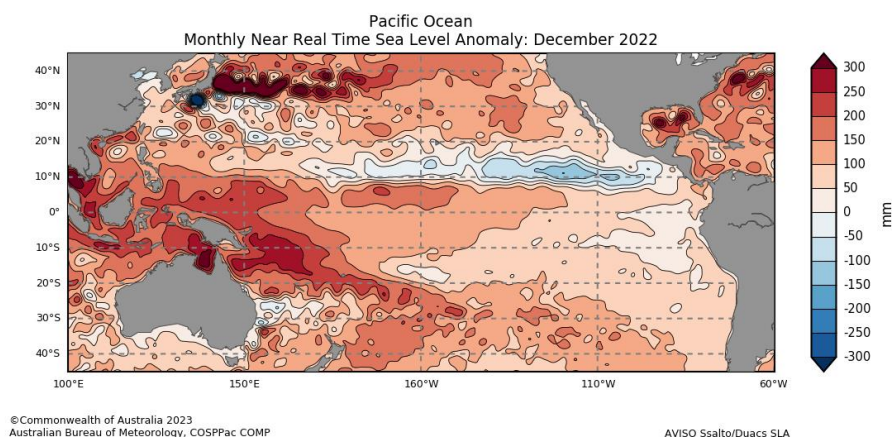
Observations of October to December 2022

Sea surface temperature:

Three-monthly SST anomalies show 0.5°C to 1.5°C below normal along the near-equatorial regions including Nauru, northern Tuvalu, Kiribati, far northern Tokelau, and the northern Cook Islands. SSTs were near-normal (within 0.5°C of average) over most of the Marshall Islands, eastern FSM, most of Tuvalu, most of Tokelau, Samoa, American Samoa, and much of the Cook Islands. Above normal temperatures persisted in the remaining partner countries stretching from Palau to far southern Cook Islands, with SST anomalies above +1.5°C stretching southeastward from PNG to southern Tonga.



Apart from northern RMI and the central Cook Islands where sea level was close to normal, December sea level was above normal over COSPPac countries. Anomalies above +250 mm were observed in southeastern PNG, the Solomon Islands, Vanuatu, northern New Caledonia, and in patches of Fiji, Tonga, and Niue. In addition, a few small parts of FSM also had anomalies over +250 mm. Sea level was generally 100 mm to 250 mm above average elsewhere.



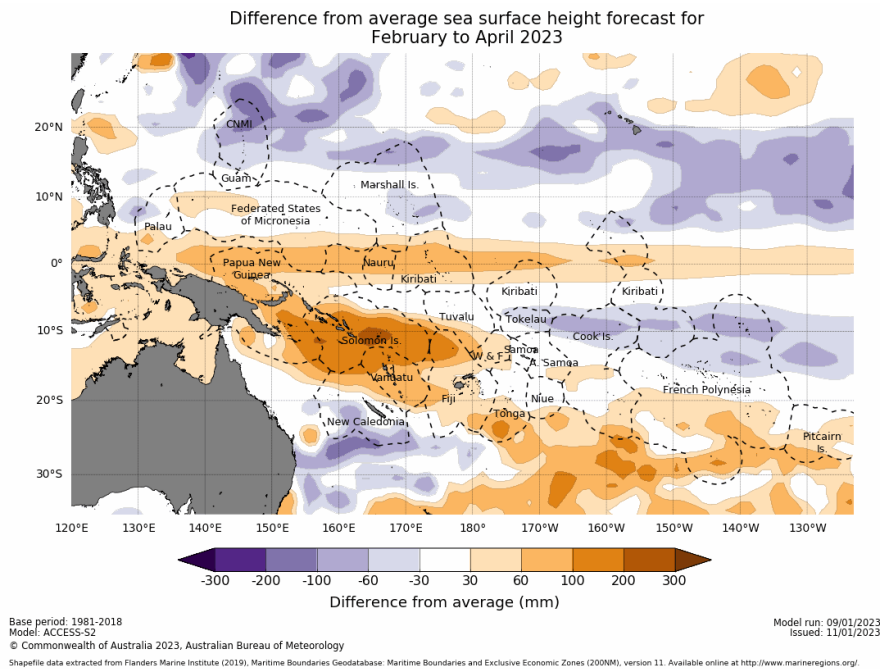
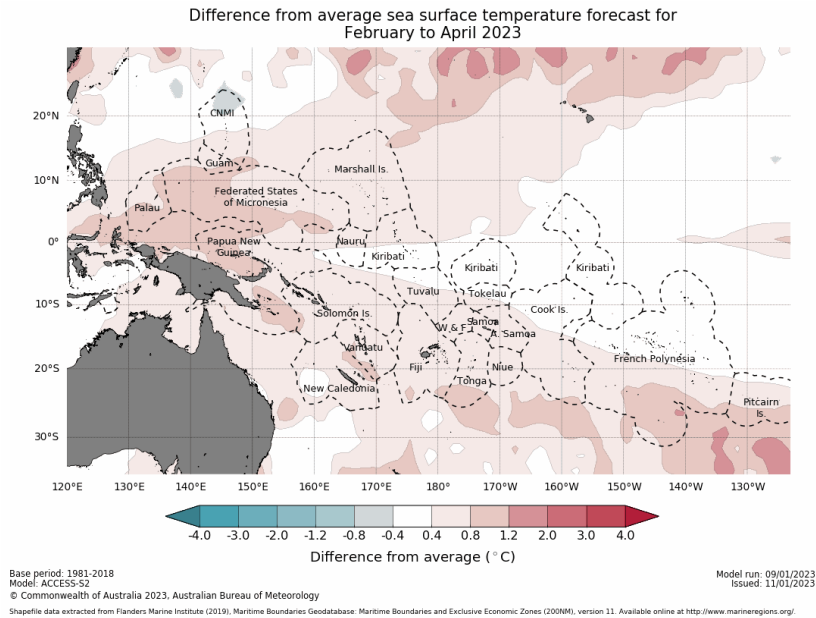
February to April 2023 Outlooks:

Sea surface temperature outlook: SSTs are forecast to be 0.4 to 1.2 °C above normal in a large boomerang shape wrapping around the equator, affecting a majority of countries in the western tropical Pacific. The remainder, where SSTs are forecast to be within 0.4 °C of normal, include Kiribati (except the northern Gilbert Group), northern Tuvalu, northern Tokelau, northern Cook Islands, and northern French Polynesia.

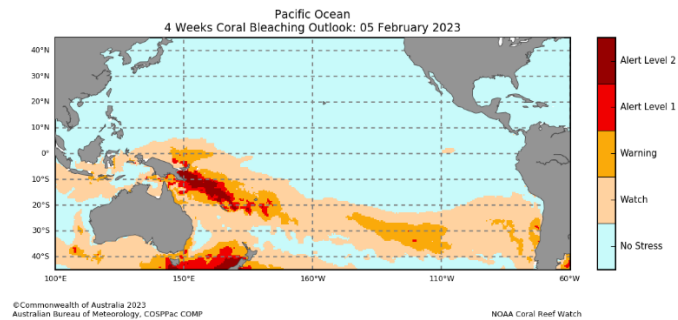
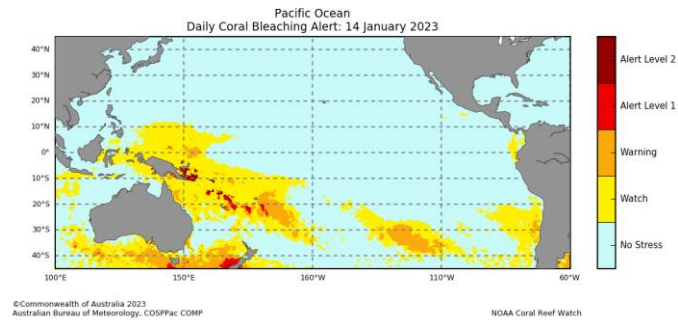
Sea level outlook: Sea level is forecast to be 30-100mm above normal for countries within two main regions: the first region aligned West-East within about 5 degrees of the equator, stretching over Palau, southern FSM, northern PNG, Nauru, far southern RMI, the Gilbert Islands, northern Phoenix Islands and northern Line Islands of Kiribati. The second region extends southeast from PNG to Pitcairn Island. Regions where the sea level is forecast to be 100-300mm above normal include the Solomon Islands, southeast PNG, northern New Caledonia, Vanuatu, the far north of Fiji and a small patch in southern Tonga. Pools of below average sea levels are predicted in northern and eastern RMI, Tokelau, northern Cook Islands, Kiribati (southern Line Islands), and northern French Polynesia. Note that this outlook does not include trends of sea level rise.

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Coral Bleaching Outlook: For the four weeks to 5 February, a broad region of "Alert Levels 1 and 2" extends southeast from PNG across the Solomon Islands, Vanuatu, and Fiji to western Tonga. 'Warning' areas, which surround the Alerts 1 and 2, reach northwards across PNG to southern FSM, cover all of Vanuatu, and most of Solomon Islands, Fiji, and Tonga. 'Watch' status affects central FSM, Nauru, the southern Gilbert Islands, southern and western Tuvalu, southern Tokelau, Samoa, American Samoa, and the southern Cook Islands. 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

Country	December 2022	
	SST	SLA
Fiji	AN	AN
Kiribati	BN	AN
Marshall Islands	NN, AN	AN, NN
Niue	AN	AN
Palau	AN	AN
Papua New Guinea	AN, NN	AN
Samoa	NN, AN	AN
Solomon Islands	AN	AN
Tonga	AN	AN
Tuvalu	NN	AN

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

Country	Date December 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands		<i>No engagement</i>			
Fiji - Climate Summary	08 December	General public	140	106	34
Fiji - EAR Watch	12 December	Humanitarian partners	122	96	26
Fiji - Climate Outlook	30 December	General public	124	93	31
Fiji - Climate Outlook for Monasavu	30 December	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	07 December	A number of key ocean related stakeholders	36	29	7
Fiji – Preparedness workshop	18 December	National Disaster Management Office (NDMO) staff	18	13	5
Fiji - Meteorological data request	01-31 December	A range of stakeholders	24	22	12
Fiji - Fifth National Climate Outlook Forum	08-09 December 2022	A range of stakeholders from disaster sensitive sectors (Ministry of Health, Land & Mineral Resources, Youth & Sports, Education, Heritage & Arts, Waterways, Local Government, Commerce, Trade, Tourism & Transport, FemLINK Pacific, ADRA, Pacific Disability Forum, Fiji Roads Authority, Red Cross, Fiji Association of the Deaf, Energy Fiji Limited, Pacific Community, Fiji Sun, Fiji Broadcasting Corporation, Sugar Research Institute of Fiji)	56	33	23
Kiribati - Climate bulletin	09 December	Government and Non-Government Organisations and public subscribed to the products.	161	45	73
Kiribati - Ocean Bulletin	09 December	Government and Non-Government Organisations and public subscribed to the products.	161	45	73
Kiribati - Media release	09 December	National Media and KMS Staffs	53	23	30

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Kiribati – EAR Watch	09 December	Island Council Mayors and clerks, KMS staff	52	30	22
Kiribati- National EAR Watch stakeholders and ACCESS-S workshop	30 November – 2 nd December	NDMO, MISE, MHMS, MELAD, KRCS, Child Fund and MWYSSA	24	7	17
Kiribati - NCOF	7 December	Island Mayors & Clerks, MISE, AUS DEFAT, COSSPac Team, KMS Staff	52	27	25
Kiribati - Océan Science and Services Workshop	28-30 December	MICT, YCL, MISE, KRC, RAK, Kiribati Fishing Club, MELAD, KPA, KWIMA, KSL, MFMRD, KMS Staff	24	14	10
Marshall Island – Climate briefing	20 December	Office of the Chief Secretary and the NDMO	5	3	2
Niue - Climate Bulletin	22 December	<ul style="list-style-type: none"> • Private Sector • Government Officials • Government staff • Stakeholders 	50	20	30
Palau - EAR Watch	12 December	National Emergency Committee (NEC) <ul style="list-style-type: none"> • 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 • Bureau of Customs & Boarder Protection • Koror State Government 	28	19	9

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PNG – Climate bulletin	6 December	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.	153	108	45
PNG – Drought Update	16 December	WMO, BOM, UNDP, PNGNWS	12	8	4
PNG- Climate data Request	1-31 December	R.Napitalai Ltd, Hatwok Man Consultancy Services, WaterPNG, Ecolab PNG	11	10	1
Samoa – EAR Watch	19 December	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	19 December	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	December	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, MECDEM, 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	December	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	December	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	December	<i>No Engagement</i>			
Tuvalu-Climate Bulletin	December	Met staffs, Disaster Members TRC TuCAN Agriculture All civil servants All kaupule members	22 2 2 1 2	17 2 1 1	5 1 2
Tuvalu - EAR Watch	December	Met staffs, Disaster Members TRC TuCAN Agriculture All civil servants All kaupule members	22 2 2 1 2	17 2 1 1	5 1 2
Tuvalu - Monthly Climate briefing	December	Met staffs, Disaster Members TRC TuCAN Agriculture All civil servants All kaupule members	22 2 2 1 2	17 2 1 1	5 1 2
Tuvalu -Ocean Outlook	December	Met staffs, Disaster Members TRC TuCAN Agriculture All civil servants All kaupule members	22 2 2 1 2	17 2 1 1	5 1 2
Tuvalu - Climate data request	01-31 December	APCC's (Peta) Tuvalu Climate Change	2	1	1
Vanuatu	December	<i>No Engagement</i>			
Total			1,684	997	619

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