

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 182 Summary Report

Date: Wednesday 16 November 2022

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

Host: SPREP

Chair: SPREP

Apologies: Republic of Marshall Islands, Tuvalu, Papua New Guinea and SPC

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 COMP (Bureau of Meteorology and SPREP) project team.
- In addition, it serves as an online training forum for recent SCOPIC 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 **14 December** and is to be chaired by **Solomon Islands**.

Participants:

The Forum was attended by 11 climate officers (6 female) from 8 partner PIC NMSs.

Cook Islands:

Fiji: Arieta Baleisolomone and Jasneel Chandra

Kiribati: Tekaatu Uribano and Miriam Kataunati

Niue: Raquel Tanaki and Robert Togiamana

Papua New Guinea:

Palau: Kiku Mochimaru

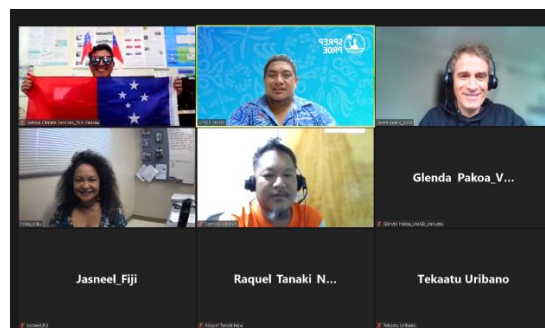
Republic of Marshall Islands: Samson Kanenko

Samoa: Kotoni Faasau

Solomon Islands:

Tonga:

Tuvalu: Leiti Tausi



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Vanuatu: Glenda Pakoa Australia: Grant Beard and Grant Smith SPREP: Tile Tofaeono SPC:	
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OCOF tables were received from 11 participating countries before the meeting.

Observations of August to October 2022:

Observed rainfall for the one and three-month periods ending October 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
Penrhyn, Cook Islands	October		29.8	4	84
Penrhyn, Cook Islands	Aug-Oct		163.2	6	83
Lautoka, Fiji	October		225.0	118	123
Ono-i-Lau, Fiji	October		221.7	72	77
Rotuma, Fiji	Aug-Oct		421.8	5	104
Arorae, Kiribati	Aug-Oct		40.1	1	54
Beru, Kiribati	Aug-Oct		49.3	4	64
Koror, Palau	October		697.5	72	72
Wewak, PNG	October		89.0	2	66
Momote, PNG	October		60.8	2	74
Goroka, PNG	October		23.8	3	58
Kavieng, PNG	October		33.0	4	95
Kavieng, PNG	Aug-Oct		130.2	3	89
Momote, PNG	Aug-Oct		322.6	4	73
Nui, Tuvalu	Aug-Oct		256.1	6	77
Taro, Solomon Islands	October		124.1	2	44
Taro, Solomon Islands	Aug-Oct		634.3	4	43
Ha'apai, Tonga	October		406.0	76	76
Fua'amotu, Tonga	October		194.0	39	43
Nanumea, Tuvalu	October		18.9	4	81
Nui, Tuvalu	October		38.3	4	77
Funafuti, Tuvalu	October		109.9	6	90
Nui, Tuvalu	Aug-Oct		237.9	6	77
Funafuti, Tuvalu	Aug-Oct		299.1	4	90
Lamap, Vanuatu	October		428.0	60	61
Bauerfield, Vanuatu	October		472.4	49	50
Port Vila, Vanuatu	October		354.5	69	70
Pekoa, Vanuatu	October		556.8	50	52
Lamap, Vanuatu	Aug-Oct		646.5	58	61
Bauerfield, Vanuatu	Aug-Oct		743.4	49	50
Port Vila, Vanuatu	Aug-Oct		503.0	66	70
Pekoa, Vanuatu	Aug-Oct		942.5	51	51

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

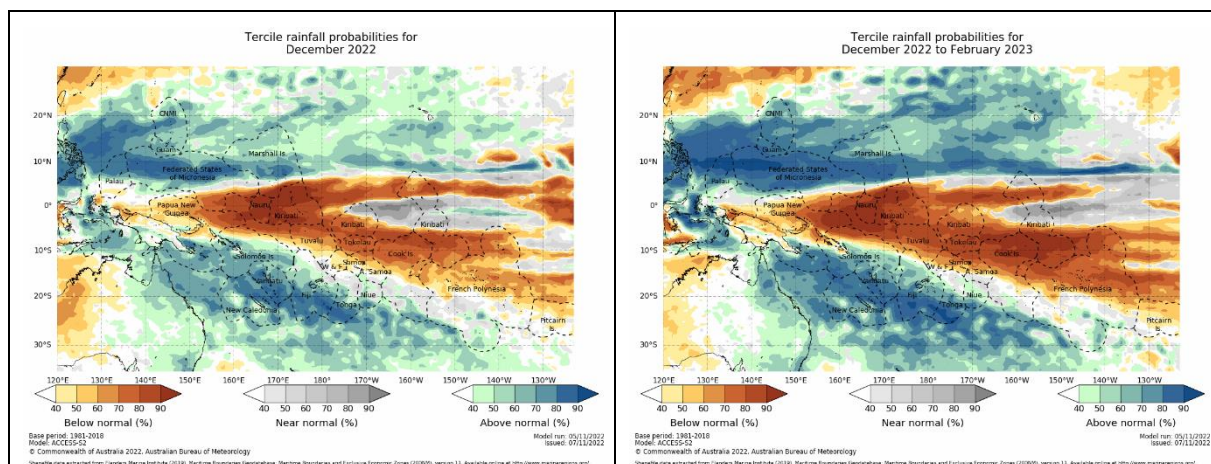
December 2022 to February 2023 Outlooks:

ACCESS-S outlooks:

The ACCESS-S for November to January 2023 shows aspects of a typical La Niña pattern, with a large region where below normal rainfall is very likely stretching east and southeast from FSM and northern PNG in the west, to the Line Islands, French Polynesia and Pitcairn Island in the east. The centre of the dry-signal region is situated further west than normal for a classic La Niña.

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 Indonesia across parts of the PNG mainland, the southern two-thirds of the Solomon Islands, New Caledonia, Vanuatu, Fiji, Tonga, Niue, and the far southern Cook Islands. Above normal is also favoured across most of Palau, FSM and RMI (except the far south of both FSM and RMI).

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).



November 2022 to January 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			

December to February 2022/23	
	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	

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

Other matters Discussed:

- OCOF 183 will be hosted by SPREP via zoom on the 14 December 2022
- Tentative date for OCOF 184 is Thursday 19 January 2023

Observed Rainfall

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

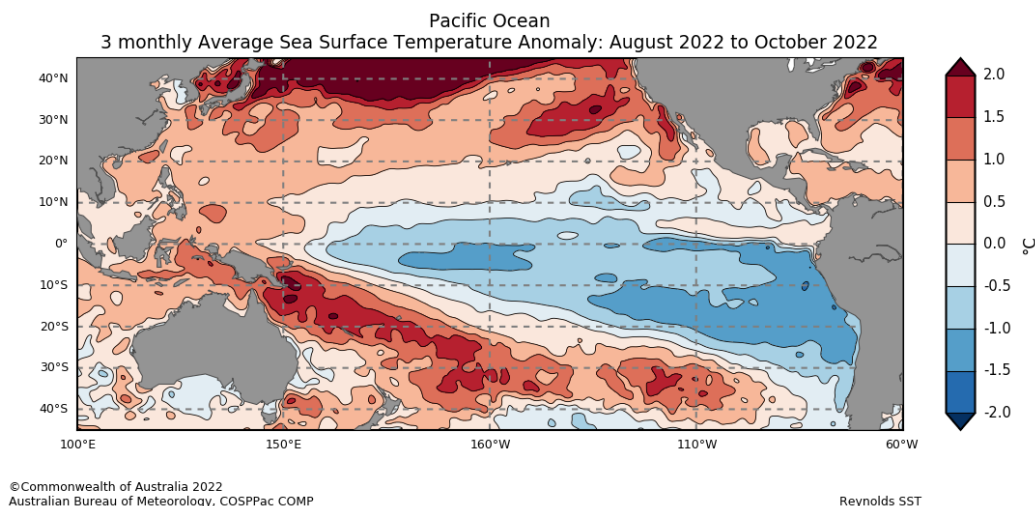
Ocean Conditions

Observations of August to October 2022

Sea surface temperature:

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

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October sea level was above normal for all COSPPac countries. The largest anomalies of +200mm to +300mm were observed in two main regions: the first was aligned West-East from Palau across central FSM, southern to central RMI, and the northern Line Islands of Kiribati, while the second extended southeast from eastern PNG, across the Solomon Islands, Vanuatu, Fiji, Tonga, Niue and the southern Cook Islands. Sea level was generally 100mm to 200mm above normal elsewhere in COSPPac nations, the main exceptions being northern RMI, Tokelau, the central and southern Line Islands, and the northern two-thirds of the Cook Islands where sea level was mostly within 100mm of normal.

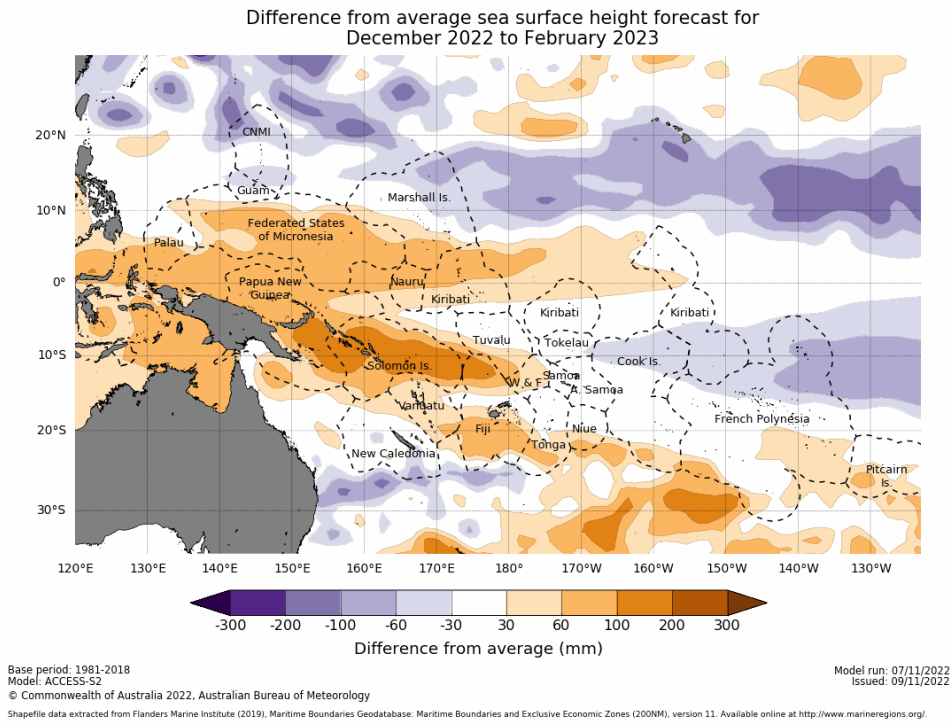
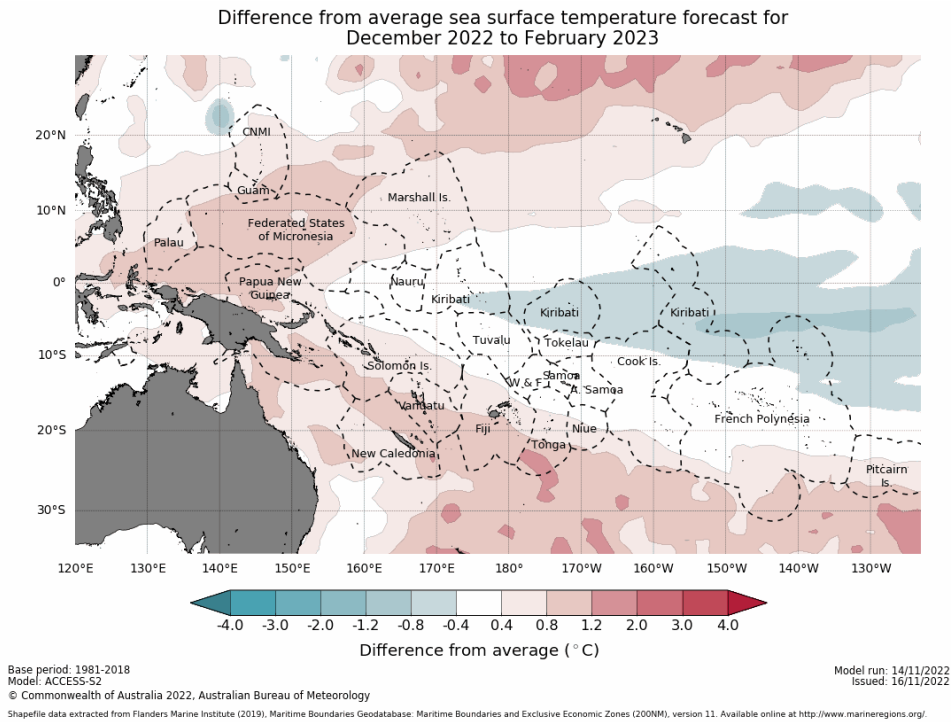
December 2022 to February 2023 Outlooks:

Sea surface temperature outlook: Equatorial zones east of western Kiribati are forecast to be cooler than normal, with anomalies in the range of -0.4 to -1.2 °C. Nauru, most of western Kiribati, Tuvalu, Tokelau, Samoa, American Samoa, much of the Cook Islands, plus the far north of each of Fiji, Tonga, and Niue, are favoured to have near-normal SSTs. Above normal SSTs are predicted in the western Pacific and remainder of the partner countries, with anomalies generally in the $+0.4$ to $+1.2$ °C range.

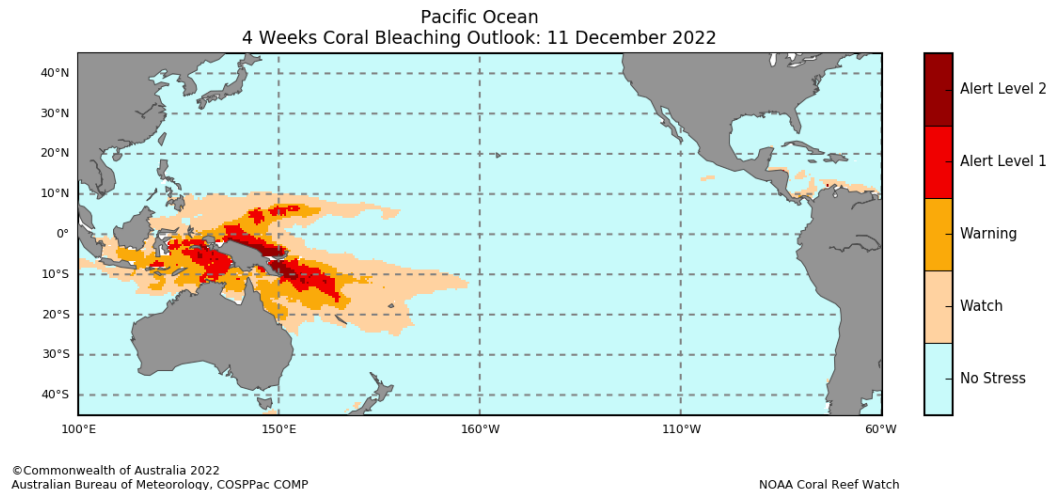
Sea level outlook: Sea level is forecast to be 30-100mm above normal for countries west of the 180° meridian and between 10°N and 10°S, as well as in Vanuatu, Fiji, southern Tonga, southern Niue, and the far south of the Cook Islands. Regions where the sea level is forecast to be 100-200mm above normal include the Solomon Islands, southeast PNG, and the far north of Fiji. Pools of below average sea levels are predicted in northeastern RMI, northern Cook Islands, and Kiribati (central and southern Line Islands), and northern French Polynesia. Note that this outlook does not include trends of sea level rise.

Coral Bleaching Outlook: 4 weeks coral bleaching outlook indicates 'Alert 2' predicted for parts of PNG, 'Alert 1' in PNG surrounding the Alert 2, as well as in central FSM, southwest Solomon Islands, and the far west of Vanuatu. 'Warning' areas surround the Alerts 1 and 2, with 'Watch' status spreading into Palau, parts of RMI, the remainder of each of FSM, PNG, Solomon Islands and Vanuatu, plus Fiji, southern Tuvalu, southern Tokelau, Samoa, and northern American Samoa. 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
CB: coral bleaching
BN: Below Normal
NN: Near Normal
AN: Above Normal
Coral Bleaching: (No Stress, Watch, Warning, Alert1, Alert2)

Country	October 2022		
	SST	SLA	CB
Cook Islands	BN, NN, AN	AN	No Stress
Fiji	AN	AN	Warning
Kiribati	BN	AN	No Stress
Marshall Islands	NN	AN	Watch
Niue	AN	AN	No Stress
Palau	AN	AN	Alert 1 & Warning
Papua New Guinea	AN, NN	AN	Alert 1-2 & Warning
Samoa	NN	AN	No Stress
Solomon Islands	AN	AN	Warning & Watch
Tonga	AN	AN	No Stress
Tuvalu	NN, BN	AN	No Stress
Vanuatu	AN	AN	Watch & No Stress

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

Country	Date October 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – Climate Bulletin	October	MoT (Ministry of Transport)	29	17	12
Cook Islands- EAR Watch	October	C.I Govt. Stakeholders and Public	?	?	?
Cook Islands Monthly Climate Briefing	October	Climate Change	8	2	6
Cook Islands – Data data request	October	MMR (Ministry of Marine Resources)	1		1
Fiji-Climate Summary	11 October	General public	140	106	34
Fiji-EAR Watch	14 October	Humanitarian partners	122	96	26
Fiji-Climate Outlook	31 October	General public	124	93	31
Fiji -Climate Outlook for Monasavu	31 October	Energy Fiji Limited	13	13	-
Fiji-Ocean Outlook	20 October	A number of key ocean related stakeholders	36	29	7
Fiji – Sugarcane climate outlook	31 October	Sugar Industry stakeholders	77	60	17
Fiji - Meteorological data request	01-31 October	A range of stakeholders	32	24	8
Kiribati - Climate bulletin	11 October	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati -Ocean Bulletin	11 October	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati- Media release	11 October	National Media and KMS Staffs	53	23	30
Marshall Island – Climate briefing	21 October	Office of the Chief Secretary and the NDMO	6	3	3

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Niue- Climate Bulletin	7 October	Private Sector, Government Officials and Government staff	60	20	40
Palau- EAR Watch	10 October	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 • Bureau of Customs & Boarder Protection • Koror State Government	28	19	9
PNG – Seasonal climate update	9 October	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.	171	130	41
PNG- National Oceans Workshop	17-21 October	PNGNWS, BoM, SPC, SPREP, CBOs, Provincial Administration Offices, NGOs, DFAT, CEPA, UPNG, Maritime	65	39	26

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		Transport Sector, Dept of Mineral Policy and Geohazards Management, Maritime Safety Authority, Department of Justice-Oceans Division, Media			
Samoa – Climate Outlook	30 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
PNG -Drought Early Warning System	26 October	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.	120	75	45
Samoa – EAR Watch	30 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
PNG- NCOF	27 October	National Disaster Centre, PNG Red Cross, DRM Alliance, World Vision, PNGNWS, Dept of Mineral Policy & Geohazards Mgmt.	12	7	5
Samoa - Ocean Outlook	30 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

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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, 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	October	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 October	Government ministries, NGOs, Media, Private sectors	155	118	37
Tonga – Ocean Bulletin	3 October	Government ministries, NGOs, Media, Private sectors	155	118	37
Tuvalu-Climate Bulletin	October	Met staffs,	22	17	5
		Disaster Members	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
Tuvalu -EAR Watch	October	All civil servants	2		
		All kaupule members			
		Met staffs,	22	17	5
		Disaster Members	2	2	
		TRC	2	1	1
Tuvalu -Monthly Climate briefing	October	TuCAN	2	1	1
		Agriculture	1	1	
		All civil servants	2		2
		All kaupule members			
		Met staffs,	22	17	5
Tuvalu -Ocean Outlook	October	Disaster Members	2	2	
		TRC	2	1	1
		TuCAN	2	1	
		Agriculture	1	1	
		All civil servants	2		2

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		All kaupule members	2		2
Vanuatu - Climate bulletin	October	<i>No engagement</i>			
Total			2,079	1,341	738

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