

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 183 Summary Report

Date: Wednesday 14 December 2022

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

Host: SPREP

Chair: Solomon Islands

Apologies: Tonga, Papua New Guinea, Cook Islands 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 **19 January 2023** and is to be chaired by **Tonga**.

Participants:

The Forum was attended by 14 climate officers (6 female) from 9 partner PIC NMSs.

Cook Islands:

Fiji: Jasneel Chandra

Kiribati: Tekaatu Uribano and Miriam Kataunati

Niue: Robert Togiamana and Jedaiah

Papua New Guinea:

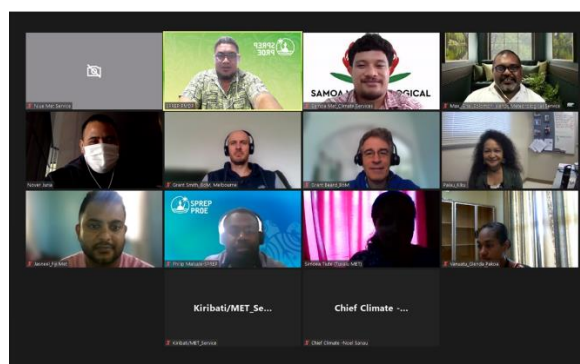
Palau: Kiku Mochimaru

Republic of Marshall Islands: Nover Juria

Samoa: Emmanuel Etimani and Taumensina Fomai

Solomon Islands: Max Satai and Noel Sanau

Tonga:



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Tuvalu: Simoea Tiute and Niko Iona Vanuatu: Glenda Pakoa Australia: Grant Beard and Grant Smith SPREP: Philip Malsale and Tile Tofaeono SPC:	
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OCOF tables were received from 10 participating countries before the meeting.

Observations of September to November 2022:

Observed rainfall for the one and three-month periods ending November 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
Rotuma, Fiji	November	173.5	10	109
Lakeba, Fiji	Sep-Nov	605.3	65	72
Rotuma, Fiji	Sep-Nov	515.8	6	66
Beru, Kiribati	November	0.1	1	54
Beru, Kiribati	Sep-Nov	30.9	5	65
Arorae, Kiribati	Sep-Nov	26.3	1	55
Hanan Airport, Niue	November	47.7	12	117
Momote, PNG	Sep-Nov	327.2	2	74
Nanumea, Tuvalu	November	29.9	5	81
Funafuti, Tuvalu	November	124.7	9	90
Nanumea, Tuvalu	Sep-Nov	148.4	8	81
Funafuti, Tuvalu	Sep-Nov	347.8	3	90
Bauerfield, Vanuatu	November	331.9	46	50
Pekoa, Vanuatu	Sep-Nov	939.5	47	52
Lamap, Vanuatu	Sep-Nov	788.5	59	61
Bauerfield, Vanuatu	Sep-Nov	950.5	49	50

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

January to March 2023 Outlooks:

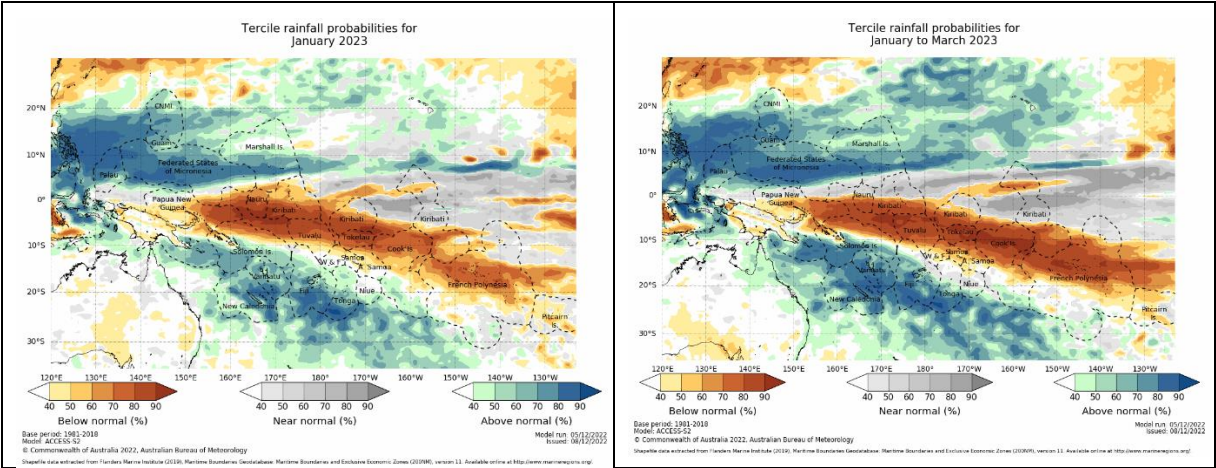
ACCESS-S outlooks:

The ACCESS-S for January to March 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. 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 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).

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).

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December 2022 to February 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			

	Dec-Feb 22/23	Jan-Mar 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		

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

Other matters Discussed:

- OCOF 184 will be hosted by SPREP via zoom on the 19 January 2023

Observed Rainfall

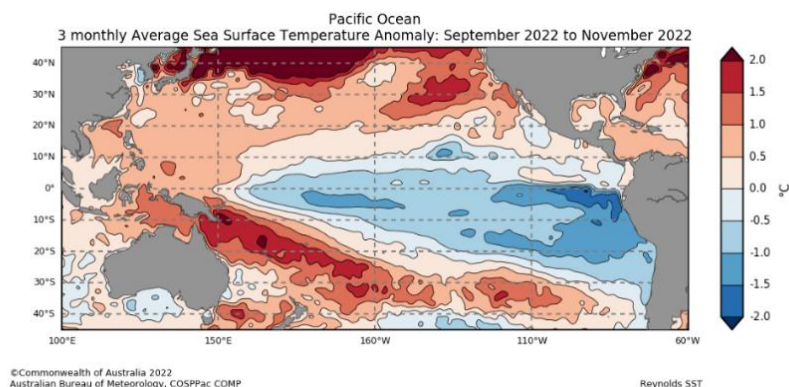
Country	November 2022	September to November 2022
Cook Islands		
Fiji	Below normal and normal	Mostly normal to above normal
Kiribati	Below normal	Below normal to above normal
RMI	Below normal and normal	Normal and above normal
Niue	Below normal	Normal
Palau	Below normal	Above normal
Papua New Guinea	Below normal to above normal	Mostly below normal
Samoa	Normal	Normal
Solomon Islands	Normal to above normal	Below normal to above 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

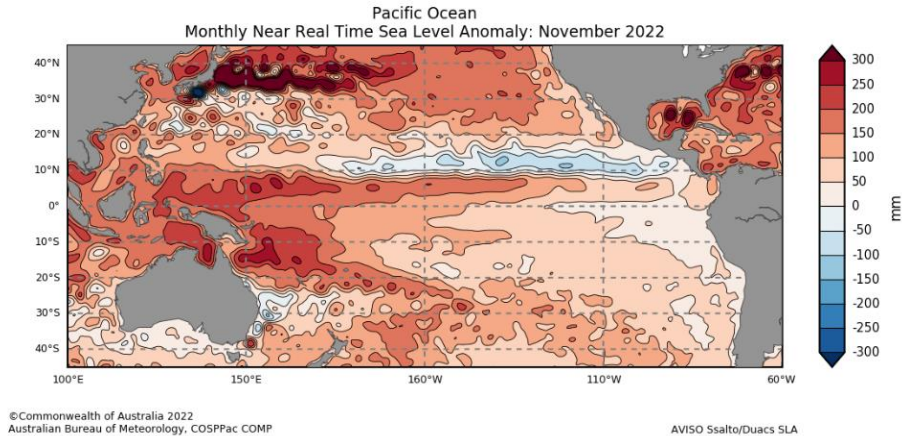
Observations of September to November 2022

Sea surface temperature:

Three-monthly SST shows below normal along the central equatorial regions including Nauru, southern Marshall Islands, northern Tuvalu, Kiribati, northern Tokelau, and northern Cook Islands. SSTs were near-normal (within 0.5°C of average) over Marshall Islands, the far western half of FSM, most of Tuvalu, Samoa, southern Tokelau, American Samoa, and most of 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 located southward from PNG to southern Tonga.



November 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 between the Equator and 10 degrees north, stretching 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 and central Cook Islands where sea level was mostly within 100mm of normal.



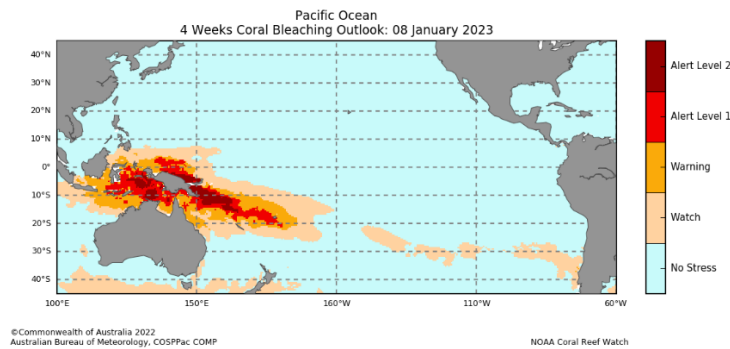
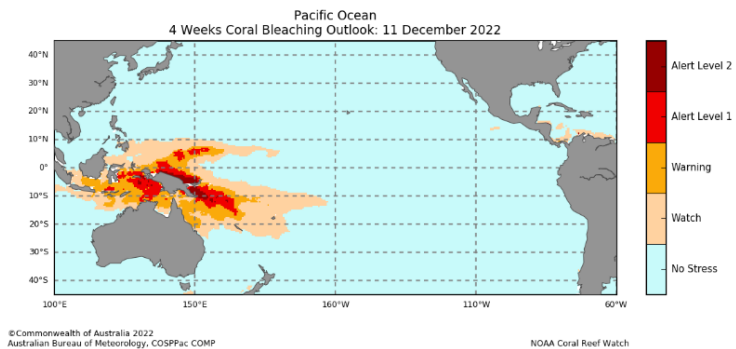
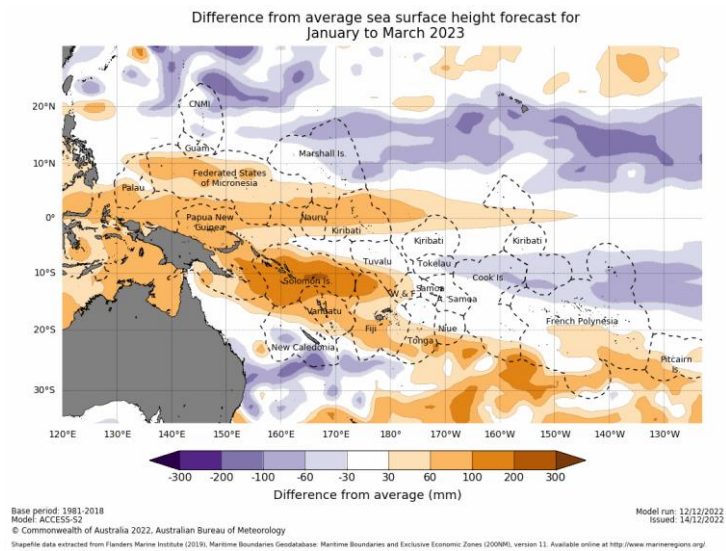
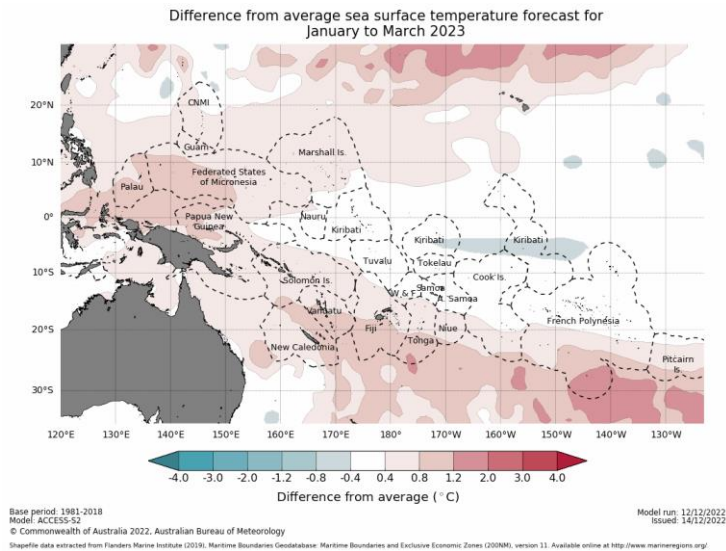
January to March 2023 Outlooks:

Sea surface temperature outlook: Central parts of Phoenix and Line island group of Kiribati are forecast to be cooler than normal, with anomalies in the range of -0.4 to -0.8 °C. Nauru, most of Kiribati, Tuvalu, Tokelau, Samoa, American Samoa, and northern and central Cook Islands 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 within two main regions: the first region aligned West-East located between the equator and 10 degrees north, stretching over Palau, central FSM, PNG, Nauru, southern RMI, Gilbert islands and northern Line island group of Kiribati. The second region extends southeast from PNG to far southern Cook Islands. Regions where the sea level is forecast to be 100-300mm 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 (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, and Solomon Islands, with 'Alert 1' in PNG and Solomon Islands surrounding the Alert 2, as well as in Vanuatu and Fiji. 'Warning' areas surround the Alerts 1 and 2, with 'Watch' status spreading into Palau, FSM, Tonga, Niue, 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	November 2022		
	SST	SLA	CB
Cook Islands	BN, NN	AN	Watch
Fiji	AN	AN	Warning
Kiribati	BN	AN	No Stress
Marshall Islands	NN, AN	AN	Watch
Niue	NN	AN	Watch
Palau	AN	AN	Watch
Papua New Guinea	AN	AN	Alert 1-2
Samoa	NN	AN	Watch
Solomon Islands	AN	AN	Alert 1
Tonga	AN	AN	Warning
Tuvalu	NN	AN	Watch
Vanuatu	AN	AN	Warning

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

Country	Date November 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands		<i>No engagement</i>			
Fiji - Climate Summary	08 November	General public	140	106	34
Fiji - EAR Watch	10 November	Humanitarian partners	122	96	26
Fiji - Climate Outlook	30 November	General public	124	93	31
Fiji - Climate Outlook for Monasavu	30 November	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	18 November	A number of key ocean related stakeholders	36	29	7
Fiji – ENSO Update	18 November	General public	142	116	26
Fiji - Meteorological data request	01-30 November	A range of stakeholders	44	34	10
Kiribati - Climate bulletin	11 November	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati - Ocean Bulletin	11 November	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati - Media release	11 November	National Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	11 November	KMS staff	9	3	6
Marshall Island – Climate briefing	21 November	Office of the Chief Secretary and the NDMO	6	2	4
Niue - Climate Bulletin		<i>No Engagement</i>			
Palau - EAR Watch	9 November	National Emergency Committee (NEC) • Office of the Vice President • Office of the President	28	19	9

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		<ul style="list-style-type: none"> • 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 			
PNG		<i>No Engagement</i>			
Samoa – Climate Outlook	25 November	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 – EAR Watch	25 November	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	25 November	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	November	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	November	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	November	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
Tuvalu-Climate Bulletin	November	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	November	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	November	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	November	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	22 November	SPC	1	1	

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Vanuatu – PICASO and Klik- P Training	7-11 November	VMGD, SPREP	10	6	4
Vanuatu - EAR Watch workshop	17-22 November	VMGD/Van-KIRAP, COSPPac, National University of Vanuatu, World Vision, New Zealand High Commission, Australian High Commission, Vanuatu Society for People with Disability, Fisheries Department	26	13	13
Total			1,397	903	515

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