

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 178 Summary Report

Date: Wednesday 20 July 2022

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

Host: SPREP

Chair: Papua New Guinea

Apologies:

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 and ACCESS-S 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 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 **18 August** and is to be chaired by **Palau**.

Participants:

The Forum was attended by 22 climate officers (11 female) from 11 partner PIC NMSs.

Cook Islands: Bates Manea

Fiji: Shweta Shiwangni and Jasneel Chnadra

Kiribati: Mwata Keariki and Kamaiti Rubetaake

Niue: Raquel Tanaki

Papua New Guinea: Kasis Inape, Kila Kila, Gabriel Tuno, Nathan Kima, Solace Roy

Palau: Kiku Mochimaru

Republic of Marshall Islands: Samson Kanenko

Samoa: Taumeasina Fomai, Kotoni Faasau, Mattaniah Salesa and Junior Lepale

Solomon Islands: Max Sitai

Tonga: Mele

Tuvalu: Simoea Tiute, Leiti Tausi and Niko Iona

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Vanuatu:

Australia: Grant Beard, Grant Smith, Elise Chandler, and Simon McGree

SPREP: Philip Malsale, Tile Tofaeono and Nanette Woonton

SPC: Judith Giblin

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

Observations of April to June 2022:

Observed rainfall for the one and three-month periods ending June 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
Vunisea, Fiji	June		27.0	6	86
Ono-I-Lau, Fiji	June		10	2	75
Rotuma, Fiji	Apr-Jun		551.9	10	108
Butaritari, Kiribati	June		115.1	7	85
Tarawa, Kiribati	June		33.0	6	75
Arorae, Kiribati	Apr-Jun		66.2	1	54
Butaritari, Kiribati	Apr-Jun		355.2	5	85
Tarawa, Kiribati	Apr-Jun		72.9	3	75
Koror Airport, Palau	Apr-Jun		1523.3	70	71
Momote, PNG	Apr-Jun		515.6	6	72
Munda, Solomon Islands	Apr-Jun		562.0	5	61
Niutoputapu, Tonga	Apr-Jun		251.5	5	69
Nanumea, Tuvalu	June		57.9	4	82
Niu, Tuvalu	June		55.3	4	72
Funafuti, Tuvalu	June		93.5	3	90
Niulakita, Tuvalu	June		141.8	5	70
Nanumea, Tuvalu	Apr-Jun		175.9	2	82
Port Vila, Vanuatu	June		286.5	64	69
Whitegrass, Vanuatu	Apr-Jun		600.7	48	51
Aneityum, Vanuatu	Apr-Jun		1045.4	68	70

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

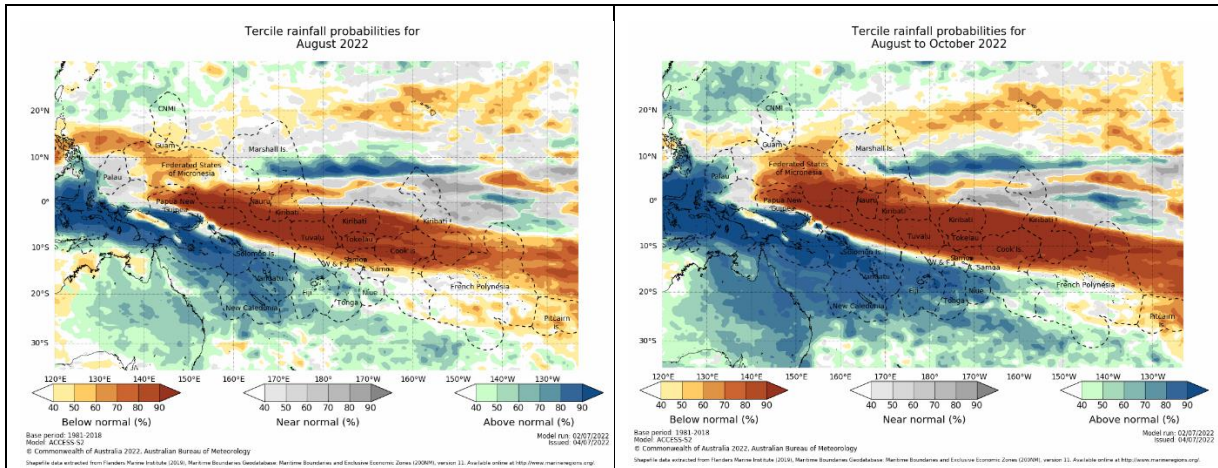
August to October 2022 Outlooks:

ACCESS-S outlooks:

The ACCESS-S for August to October shows a typical La Niña pattern, with a large region where below normal rainfall is very likely stretching from FSM and northern PNG in the west, to 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

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Palau across most of PNG, southern Solomon Islands, New Caledonia, Vanuatu, Tonga, Niue, and the southern half of the Cook Islands. Above normal is also strongly favoured for the central RMI.



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

The ACCESS-S, Copernicus (C3S) and CLIKP models are compared in the following table. Blank (white) cells 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).

July to September 2022			
	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			

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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 179 will be hosted by SPREP via zoom on the 18th August 2022
- Countries (Samoa, American Samoa, Cook Islands, French Polynesia and Hawaii) experienced coastal inundation due to spring tide
- SCOPIC outlook remove from climate bulletin and from OCOF summary

Observed Rainfall

Country	June 2022	April to June 2022
Cook Islands	Normal to above normal rainfall	Normal to above normal rainfall
Fiji	Mostly below normal and normal	Below normal and normal
Kiribati	Mostly below normal	Below normal
RMI	Below normal and normal	Normal and above normal
Niue	Above normal	Normal
Palau	Normal	Above normal
Papua New Guinea	Below normal and normal	Below normal to above normal
Samoa	Below normal and normal	Below normal
Solomon Islands	Below normal to above normal	Below normal to above normal
Tonga	Below normal and normal	Below normal and normal
Tuvalu	Below normal	Below normal

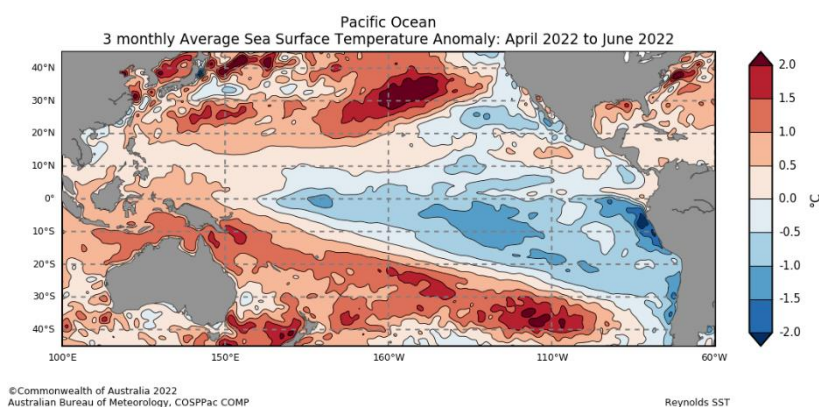
Vanuatu	Normal and above normal	Mostly above normal
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Ocean Conditions

Observations of April to June 2022

Sea surface temperature:

3 monthly SST shows cooler conditions along the central equatorial regions including Nauru, southern Marshall Islands, northern Tuvalu, Kiribati and northern Cook Islands. Near normal conditions observed along 10 degrees North latitude and over northern Marshall Islands, FSM, southern Tuvalu, and central Cook Islands. Warmer than normal conditions persisted in the remainder partner countries with significant SST anomalies southward from Palau to southern Cook Islands.



Sea level remained higher than normal for most of the countries from April to June, with significant sea level anomalies located southeast Palau and within the Solomon Sea between PNG and Solomon Islands.

August to October 2022 Outlooks:

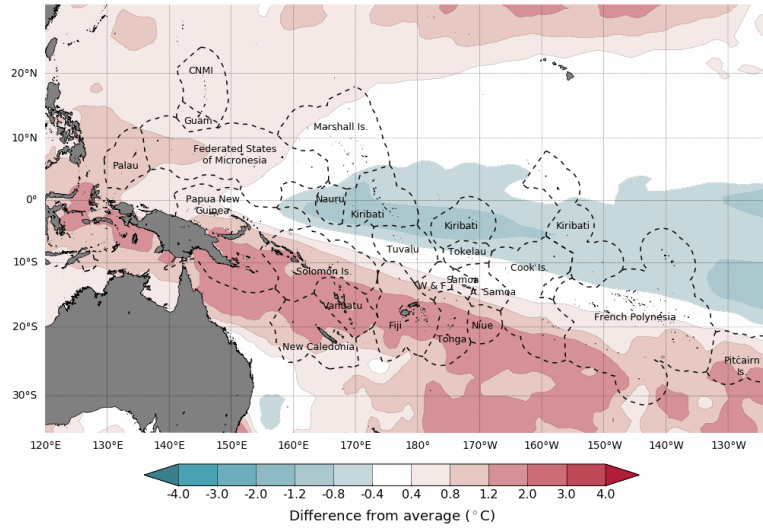
Sea surface temperature outlook: Equatorial zones east of Nauru is forecasted to have cooler than normal conditions with temperature range of -0.4 to -0.8 °C. Marshall Islands, central Tuvalu, central Cook Islands are favoured to be neutral. A boomerang shape of warm conditions is predicted in the western and remainder of the partner countries. Significant temperatures of 1.2 to 2.0 °C are located southeastward from PNG.

Sea level outlook: Sea level is forecasted to be higher than normal for countries near or in the Western Warm Pool (southern Palau, southern FSM, southern RMI, PNG, Solomon Islands, Vanuatu, Fiji, and Tuvalu), ranging from 30 to 300 mm in the western Pacific, with significant sea level anomalies of 100-300mm in the Bismarck Sea, Solomon Sea and east of Solomon Islands. Pools of below average sea levels is predicted in central and northern RMI, northern Cook Islands and Kiribati (southern Line Islands). Note that this outlook does not include trends of sea level rise.

Coral Bleaching Outlook: 4 weeks coral bleaching outlook indicates 'Alert 1' predicted for parts of PNG, with 'Warning' for Palau and western FSM. 'Watch' status for remainder of FSM, and Solomon Islands. The remaining countries are predicted to experience no thermal stress.

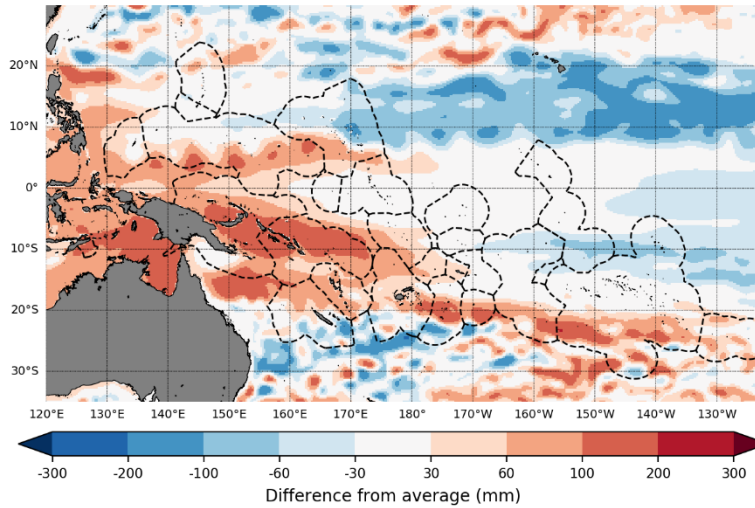
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Difference from average sea surface temperature forecast for August to October 2022



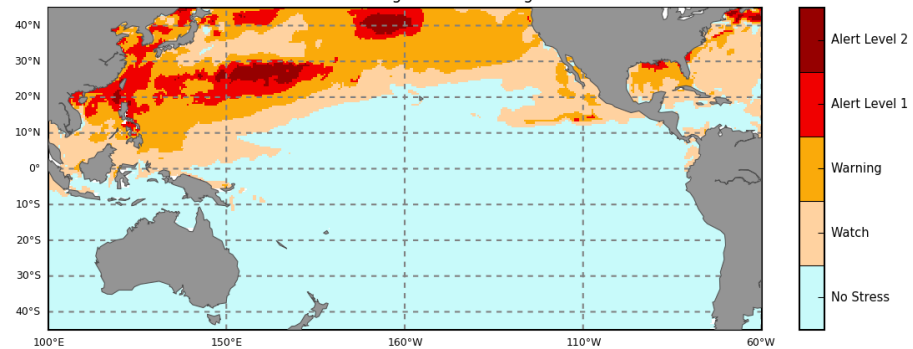
Base period: 1981-2018
 Model: ACCESS-S2
 © Commonwealth of Australia 2022. Australian Bureau of Meteorology
 Model run: 18/07/2022
 Issued: 20/07/2022
 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.maritimerregions.org/>.

Difference from average sea surface height forecast for August 2022 to October 2022



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 Bureau of Meteorology
 Model: ACCESS-S2
 Base Period: 1981-2018
 Model Run: 28/06/2022
 Issued: 12/07/2022

Pacific Ocean
 4 Weeks Coral Bleaching Outlook: 14 August 2022



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 Australian Bureau of Meteorology, COSPPac COMP
 NOAA Coral Reef Watch

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

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

Country	Date June 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – Climate Bulletin	June	Ministry of Transport	29	17	12
Cook Islands - EAR Watch	June	C.I Govt. Stakeholders Public			
Cook Islands – Monthly Climate briefing	June	Climate Change	8	2	6
Cook Islands- Climate data request	June	MMR (Ministry of Marine Resources)	1		1
Fiji-Climate Summary	07 June	General public	140	106	34
Fiji-EAR Watch	14 June	Humanitarian partners	122	96	26
Fiji-Climate Outlook	30 June	General public	124	93	31
Fiji -Climate Outlook for Monasavu	30 June	Energy Fiji Limited	13	13	-
Fiji-Meteorological Data Request	01-30 June	A range of stakeholders	36	31	5
Kiribati - Climate bulletin	08 June	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati -Ocean Bulletin	08 June	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati- Media release	08 June	National Media and KMS Staffs	53	23	30
Marshall Island – Climate briefing	22 June	RMI National Disaster Management Office (NDMO)	6	4	2
Niue- Climate Bulletin	30 June	Private Sector, Government Officials, Government staff and stakeholder	65	30	35
Palau- EAR Watch	14 June	National Emergency Committee (NEC) • Office of the Vice President • Office of the President • NEMO Coordinator • National Weather Service • Bureau of Budget and Planning	28	19	9

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		<ul style="list-style-type: none"> • 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- Climate bulletin	18 June	Govt: National Disaster Centre, Dept. of Agriculture and Livestock, ClimateChange Development Authority, National Agriculture Research Institute, Dept. of Transport, Dept. of Mineral Policy and Geohazard Management, Dept. of Works, PNGFire, 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. 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, PNG Ports, Media and Universities.	108	79	29
PNG – Drought Early Warning Update	15 June	Bom, UNDP, PNGNWS	11	7	4
Samoa – EAR Watch	17 June	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	65	27	38

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		Technology, Disaster Managers, Marines			
Samoa - Ocean Outlook	17 June	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	June	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	June	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	June	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	03 June	Government ministries, NGOs, Media, Private sectors	155	118	37
Tonga – Ocean Bulletin	03 June	Government ministries, NGOs, Media, Private sectors	155	118	37
Tuvalu-Climate Bulletin	June	Met staffs, Disaster Members All civil servants All kaupule members	22 7	17 4	5 3
Tuvalu -EAR Watch	June	Met staffs, Disaster Members All civil servants All kaupule members	22 7	17 4	5 3
Tuvalu -Monthly Climate briefing	June	Met staffs, Disaster Members All civil servants All kaupule members	22 7	17 4	5 3

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Tuvalu -Ocean Outlook	June	Met staffs, Disaster Members All civil servants All kaupule members	22 7	17 4	5 3
Tuvalu-Climate data request	June	Taiwan Mission	1	1	
Vanuatu- climate sectoral bulletin	15 June	VMGD-Van-KIRAP Staffs, Oxfam Vanuatu, Action Aid Vanuatu, University of the South Pacific (USP), Vanuatu Statistics Office, SPREP, Vanuatu National Disaster Management Office (NDMO), Media-Vanuatu, Vanuatu Red Cross Society, Matevulu College, Onesua Presbyterian College, Aore Adventist College, Tafea College, CSU, Vanuatu Care International, Save the Children Vanuatu, UNDP, Shefa Education, Live & Learn, UN-Women, Vanuatu Christian Council (VCC), GCF Private Consultants, Vanuatu Society of People Living with Disability, Unelco Vanuatu, World Health Organization, Vanuatu Meteorology & Geo-Hazards Department (Staffs), General Public (Website and VMGD Call-Center)	206	104	102
Vanuatu-Monthly Climate briefing	15 June	Community Climate Centres (Sola, Sanma, Penama), VMGD Staffs, Van-KIRAP Staffs, Malampa Live & Learn Staffs, CSU Staffs, USP Staffs (Fiji) and NDMO Sanma and Sola Office			
Vanuatu – Ocean Outlook	16 June	VMGD-Van-KIRAP Staffs, Oxfam Vanuatu, Action Aid Vanuatu, University of the South Pacific (USP), Vanuatu Statistics Office, SPREP, Vanuatu National Disaster Management Office (NDMO), Media-Vanuatu, Vanuatu Red Cross Society, Matevulu College, Onesua Presbyterian College, Aore Adventist College, Tafea College, CSU, Vanuatu Care International, Save the Children Vanuatu, UNDP, Shefa Education, Live & Learn, UN-Women, Vanuatu Christian Council (VCC), GCF Private Consultants, Vanuatu Society of People Living with Disability, Unelco Vanuatu, World Health Organization, Vanuatu Meteorology & Geo-Hazards Department (Staffs), General Public (Website and VMGD Call-Center).	206	104	102
Total			2,074	1,287	1,678

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