

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 180 Summary Report

Date: Thursday 13 September 2022

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

Host: SPREP

Chair: Samoa

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 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 **13 October** and is to be chaired by **RMI**.

Participants:

The Forum was attended by 18 climate officers (11 female) from 9 partner PIC NMSs.

Cook Islands:

Fiji: Jasneel Chandra, Arieta Baleisolomone and Shweta Shiwangni

Kiribati: Mwata Keariki and Takaatu Uribano

Niue: Raquel Tanaki and Julyn Motusa

Papua New Guinea: Nanao Bouauka

Palau: Kiku Mochimaru

Republic of Marshall Islands:

Samoa: Kotoni Faasau, Emmanuel Etimani and Junior Lepale

Solomon Islands:

Tonga: Mele

Tuvalu: Simoea Tiute, Leiti Tausi, and Niko Iona

Vanuatu: Glenda Pakoa

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Australia: Grant Beard

SPREP: Philip Malsale and Tile Tofaeono

SPC: Judith Giblin

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

Observations of June to August 2022:

Observed rainfall for the one and three-month periods ending August 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	August		18.0	2	85
Rarotonga, Cook Islands	August		268.4	117	124
Rotuma, Fiji	August		79.5	7	107
Udu Point, Fiji	June-August		476.4	67	72
Arorae, Kiribati	August		15.2	3	55
Arorae, Kiribati	June-August		69.4	1	55
Vanimo, PNG	August		81.0	6	67
Kavieng PNG	August		76.6	7	91
Momote, PNG	June-August		431.4	1	72
Kavieng, PNG	June-August		314.2	4	91
Honiara, Solomon Islands	August		169.3	62	67
Taro, Solomon Islands	June-August		651.4	4	44
Munda, Solomon Islands	June-August		381.0	3	61
Nuku'alofa, Tonga	August		24.5	5	78
Ha'apai, Tonga	June-August		71.5	8	76
Fua'amotu, Tonga	June-August		146.3	3	43
Nuku'alofa, Tonga	June-August		81.5	3	78
Nui, Tuvalu, Tuvalu	August		31.8	1	77
Funafuti, Tuvalu	August		76.0	3	90
Nanumea, Tuvalu	June-August		245.9	7	81
Nui, Tuvalu, Tuvalu	June-August		143.6	1	77
Funafuti, Tuvalu	June-August		256.9	2	90
Pekoa, Vanuatu	August		259.4	49	50
Bauerfield, Vanuatu	June-August		617.2	48	50
Port Vila, Vanuatu	June-August		626.0	66	69

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

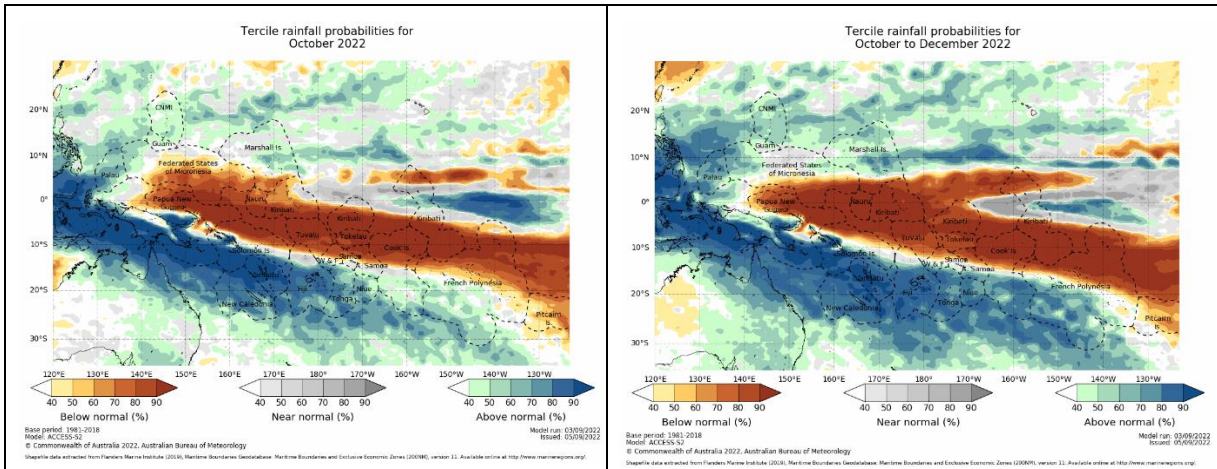
October to December 2022 Outlooks:

ACCESS-S outlooks:

The ACCESS-S for October to December shows a large region where below normal rainfall is very likely stretching from FSM and northern PNG in the west, to northern 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 Palau across most of PNG, the main islands of the Solomon Islands, New Caledonia, Vanuatu, Fiji, Tonga, Niue, the southern half of the Cook Islands, and southern French Polynesia. Above normal is also favoured for central RMI.

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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).



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

	Sep-Nov 22	Oct-Dec 22
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		

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Other matters Discussed:

- OCOF 181 will be hosted by SPREP via zoom on the 13 October 2022
- PICOF 11 schedule for the 25th October 2022
- Help Tuvalu run through the method of generating values for OCOF tables 1 & 2

Observed Rainfall

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

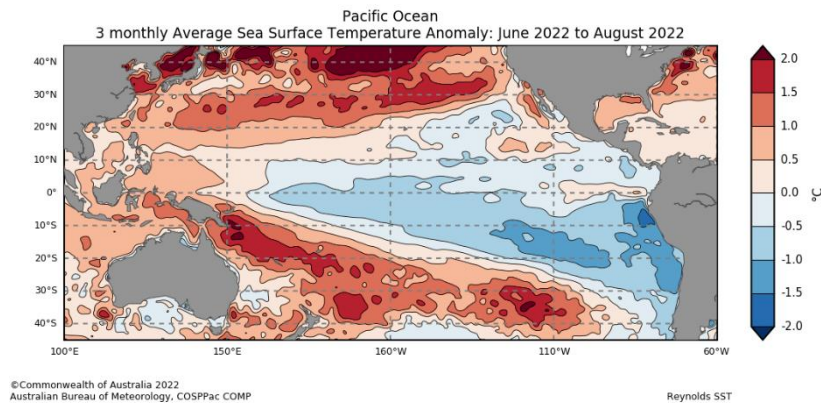
Ocean Conditions

Observations of June to August 2022

Sea surface temperature:

Three 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, northern Samoa and central Cook Islands. Warmer than normal conditions persisted in the remainder partner countries stretching from Palau to southern Cook Islands, with significant SST anomalies above 1.5°C located southward from PNG to southern Tonga.

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Sea level remained higher than normal for most of the countries from June to August, with significant sea level anomalies above 200mm located from the Solomon Sea to eastern Fiji, with patches over southern Tonga, Niue and southern Cook Islands

October to December 2022 Outlooks:

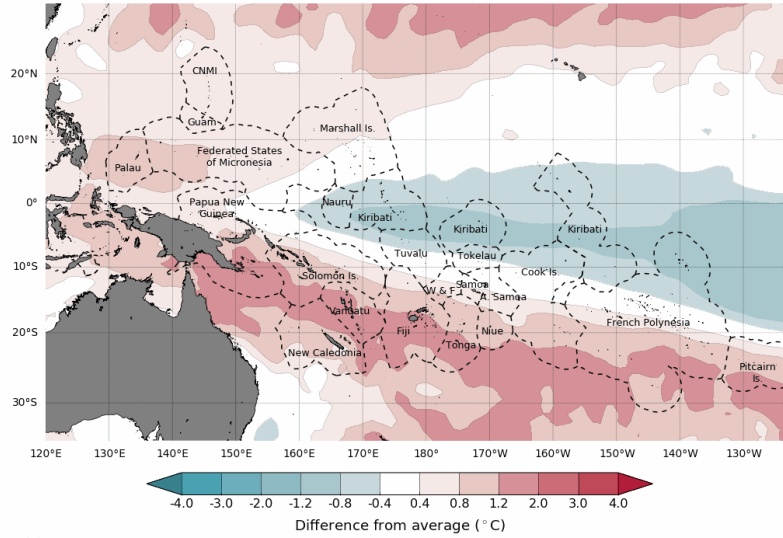
Sea surface temperature outlook: Equatorial zones east of Nauru is forecasted to have cooler than normal conditions with temperature range of -0.4 to -1.2 °C. Marshall Islands, central and southern Tuvalu, central Cook Islands are favoured to be neutral. Warm conditions are predicted in the western and remainder of the partner countries. Significant temperatures of 1.2 to 3.0 °C stretch southeastward from PNG to southern Cook Islands.

Sea level outlook: Sea level is forecasted to be higher than normal for countries near or in the Western Warm Pool (Palau, FSM, southwestern RMI, PNG, Solomon Islands, Vanuatu, southern Fiji, and southern Tonga), ranging from 30 to 200 mm in the western Pacific, with significant sea level anomalies of 100-200mm in the Bismarck Sea, Solomon Sea, Solomon Islands and southern parts of Palau, FSM, Fiji and Tonga. Pools of below average sea levels is predicted in northeastern RMI, central and northern Cook Islands and Kiribati (central and 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 2' predicted for parts of PNG, 'Alert 1' for Palau and western FSM, with 'Warning' for central FSM, northern RMI. 'Watch' status for remainder of FSM, RMI, PNG and northern Solomon Islands. The remaining countries are predicted to experience no thermal stress.

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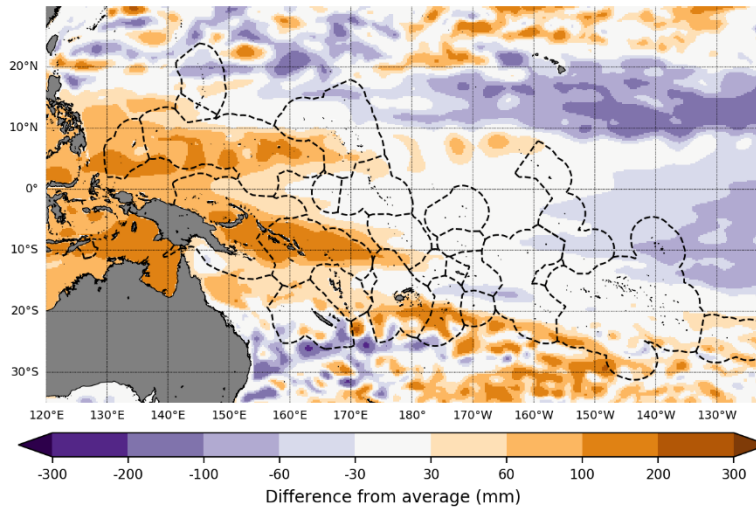
Difference from average sea surface temperature forecast for October to December 2022



Base period: 1981-2018
 Model: ACCESS-S2
 © Commonwealth of Australia 2022, Australian Bureau of Meteorology
 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/>

Model run: 12/09/2022
 Issued: 14/09/2022

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

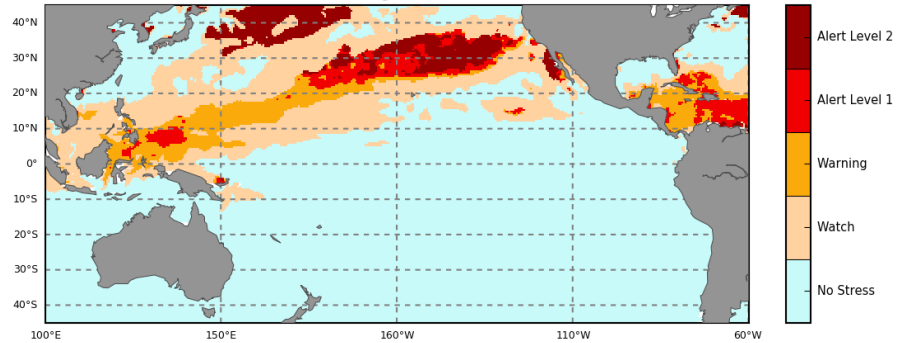


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 Bureau of Meteorology

Model: ACCESS-S2
 Base Period: 1981-2018

Model Run: 28/08/2022
 Issued: 06/09/2022

Pacific Ocean
 4 Weeks Coral Bleaching Outlook: 09 October 2022



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

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

Country	Date August 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – Climate Bulletin	August	Ministry of Transport	29	17	12
Cook Islands - EAR Watch	August	C.I Govt. Stakeholders Public			
Cook Islands – Monthly Climate briefing	August	Climate Change	8	2	6
Cook Islands- Climate data request	August	MMR (Ministry of Marine Resources)	1		1
Fiji-Climate Summary	August	General public	140	106	34
Fiji-EAR Watch	August	Humanitarian partners	122	96	26
Fiji-Climate Outlook	August	General public	124	93	31
Fiji -Climate Outlook for Monasavu	August	Energy Fiji Limited	13	13	-
Fiji-Ocean Outlook	August	A number of key ocean related stakeholders	36	29	7
Fiji- EAR Watch Workshop	15-16 August	Ministry of Agriculture, National Disaster Management Office, Ministry of Health, Ministry of Lands & Mineral Resources, Ministry of Waterways & Environment, FemLink Pacific, Fiji Red Cross, Fiji Sugar Corporation (FSC), Sugar Research Institute of Fiji (SRIF), Water Authority of Fiji, Pacific Disability Forum, Adventist Development & Relief Agency of Fiji (ANDRA), FemLink Womens Weather Watch	44	26	18
Fiji - Better use of climate information at a community level SRIF, FSC and sugarcane farmer engagement workshop	17-23 August	Fiji Sugar Corporation Field Officers, Sugar Research Institute of Fiji Technical and Scientific Officers, farmers from Nadi, Ba, Tavua, Labasa and Seaqqa	208	187	21

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Kiribati - Climate bulletin	August	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati -Ocean Bulletin	August	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati-Media release	August	National Media and KMS Staffs	53	23	30
Marshall Island – Climate briefing	August	Office of the Chief Secretary and the NDMO	7	4	3
Niue- Climate Bulletin	August	Private Sector, Government Officials and Government staff	70	30	40
Palau- EAR Watch	August	<p>National Emergency Committee (NEC)</p> <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
PNG- Climate bulletin	August	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, PNGFire, National Maritime Safety Authority, Civil Aviation Safety Authority, PNG Forest Authority, National Capital District Commission, PNG Customs Authority, National Dept. Of	172	132	40

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		Health, Dept. of Education, Centre for Environmental Protection Authority. UN agencies: UNDP, IOM, UNOCH. Private: PNG Air Services Limited, ExxonMobil, Ok Tedi MiningLtd, PNG Power Ltd, Global Construction Ltd, Datec, InterOil, Air Niugini, Bank South Pacific, PNG Ports, Media and Universities.			
PNG	August	<i>No engagement</i>			
Samoa – Climate bulletin	August	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	August	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	August	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	August	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	August	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

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Solomon Islands - Ocean Bulletin	August	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	August	Government ministries, NGOs, Media, Private sectors	155	118	37
Tonga – Ocean Bulletin	August	Government ministries, NGOs, Media, Private sectors	155	118	37
Tuvalu-Climate Bulletin	August	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	August	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	August	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	August	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
Vanuatu - Climate bulletin	August	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

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Vanuatu -EAR Watch	August	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 – Ocean Outlook	August	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	August	Farmers, Fishermen, Department of Local Authorities, Forestry: - Mataso Island - Makira Island - Emae Island - Tongariki Island - Buninga Island - Tongoa Island	482	196	286
Vanuatu – Climate data request	01-31 August	Students and VMGD Officers	3	2	1
Total			3,140	1,872	1,116

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