

## Seasonal Prediction Project (SPP)

### Pacific Islands – Ocean and Climate Outlook Forum No. 171 Summary Report

**Date:** Wednesday 15 December 2021

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

**Host:** SPREP

**Chair:** Solomon Islands

**Apologies:** Cook Islands and Palau

**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 2022** and is to be chaired by **Tonga**.

**Participants:**

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

**Cook Islands:**

**Fiji:** Jasneel Chandra, Shweta Shiwangni and Arieta Baleisolomone

**Kiribati:** Kamaitia Rubeaake

**Niue:** Raquel Tanaki, Maxime Edwards and Robert Togiamana

**Papua New Guinea:**

**Palau:**

**Republic of Marshall Islands:**

**Samoa:** Kotonu Faasau and Faapisa Aiono

**Solomon Islands:** Max Sitai

**Tonga:**

**Tuvalu:**

**Vanuatu:** Glenda Pakoa

**Australia:** Elise Chandler, Grant Smith and Janita Pahalad

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**SPREP:** Philip Malsale and Tile Tofaeono

**SPC:** Zulfikar Begg

OCOF tables were received from 10 participating countries before the meeting.

### Observations of September to November 2021:

Observed rainfall for the one and three-month periods ending November 2021 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
Udu Point, Fiji	November		418.7	65	72
Kiritimati, Kiribati	November		0.6	9	88
Koror Airport, Palau	Sep-Nov		1281.8	69	70
Wewak, PNG	November		387.8	64	65
Port Moresby	November		171.9	113	124
Port Moresby	Sep-Nov		336.4	111	113
Apia, Samoa	Sep-Nov		321.4	12	132
Nafanua, Samoa	Sep-Nov		379.4	3	49
Taro, Solomon Islands	Sep-Nov		1086	38	42
Fua'amotu, Tonga	November		23.6	4	42
Niuafu'ou, Tonga	Sep-Nov		227.7	4	48
Niuaatupu, Tonga	Sep-Nov		153.5	4	72
Pekoa, Vanuatu	Sep-Nov		1221.1	51	51

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

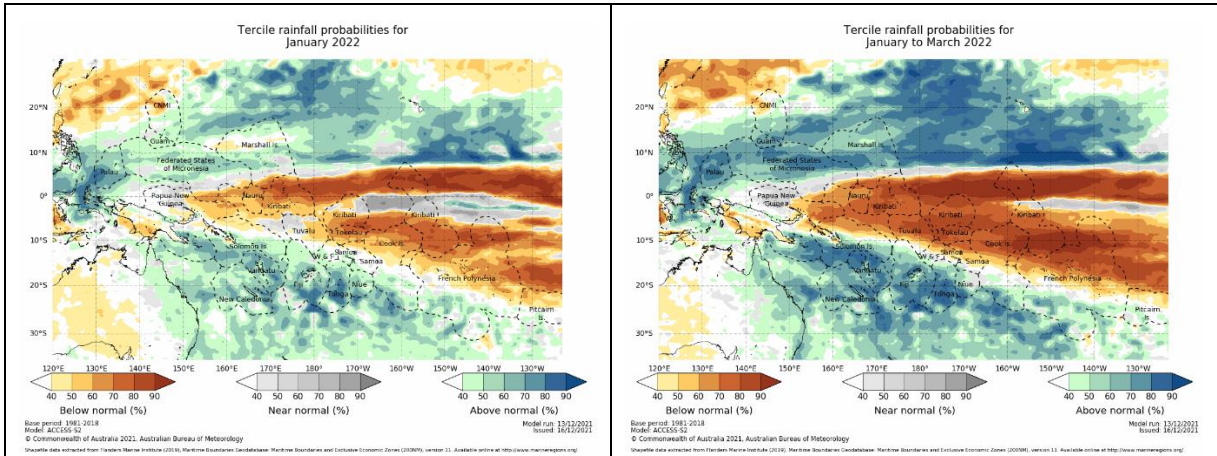
### January to March 2022 Outlooks:

ACCESS-S outlooks:

There is a strong dry signal extending northeast PNG to central French Polynesia, with a second band just north of the equator extending to eastern Kiribati. In contrast there is a strong wet signal covering from Palau to the northern Marshall Islands and a second band from southeast PNG to southern French Polynesia. The pattern is reasonably consistent with a possible La Niña.

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).

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

January - March 2022 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	

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Solomon Is Central	Yellow
Solomon Is East	Light Green
Tonga North	Teal
Tonga Central	Blue-Green
Tonga South	Blue
Tuvalu North	Dark Red
Tuvalu Central	Red-Orange
Tuvalu South	Orange
Vanuatu North	Dark Blue
Vanuatu South	Blue

**Other matters Discussed:**

- OCOF 172 will be hosted by SPREP via zoom on the 19 January 2021
- Nino3.4 SST anomalies are not link to table 1 and 2 on OCOF document. So NMS can work on their OCOF tables even when SST anomalies are not updated. SPREP will send updated predictor files to NMS
- New SCOPIC version is under development
- Coral bleaching Alert and Outlook maps to be specific for countries especially during warning
- NCOF organised by Fiji in December
- SPC reminder countries about kind tides and can help to media to address this in the media
- Country are ask to document impacts of La Nina event

**Observed Rainfall**

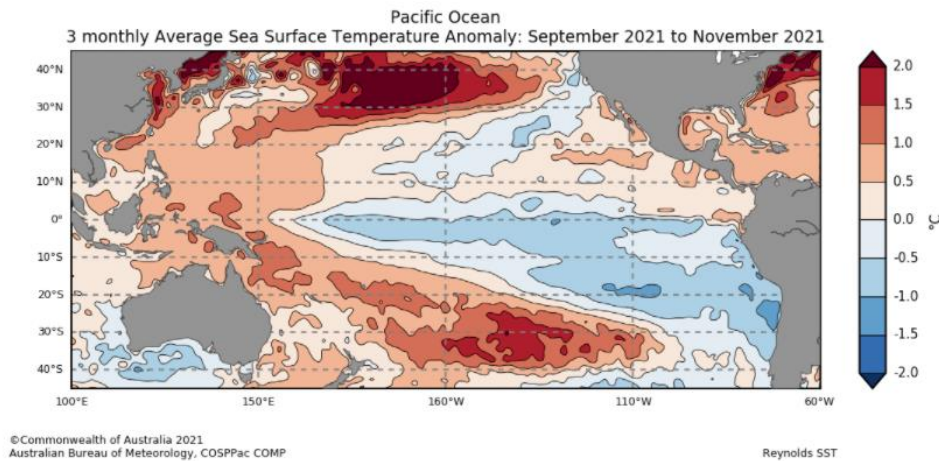
Country	November 2121	September to November 2021
Cook Islands	Normal and above normal	Normal
Fiji	Mostly normal to above normal	Below normal to normal
Kiribati	Below normal and normal	Below normal and normal
RMI		
Niue	Normal	Normal
Palau	Below normal	Above normal
Papua New Guinea	Below normal and above normal	Mostly normal and above normal
Samoa	Below normal to above normal	Below normal and normal
Solomon Islands	Below normal to above normal	Below normal to above normal
Tonga	Moslt below normal	Mostly below normal and normal
Tuvalu		
Vanuatu	Mostly above normal	Mostly above normal

## Ocean Conditions

### Observations of September to November

Sea surface temperature:

3 monthly SST shows cooler conditions prevailed along the central equatorial regions including parts of Kiribati, Nauru, Tuvalu and Cook Islands. Boomerang shape of warmer than normal conditions persisted in the west and remainder of the partner countries.



Sea level remained higher than normal for most of the countries from September to November, with highest anomalies north and south of the equator around 10° latitudes

### January to March 2022 Outlooks:

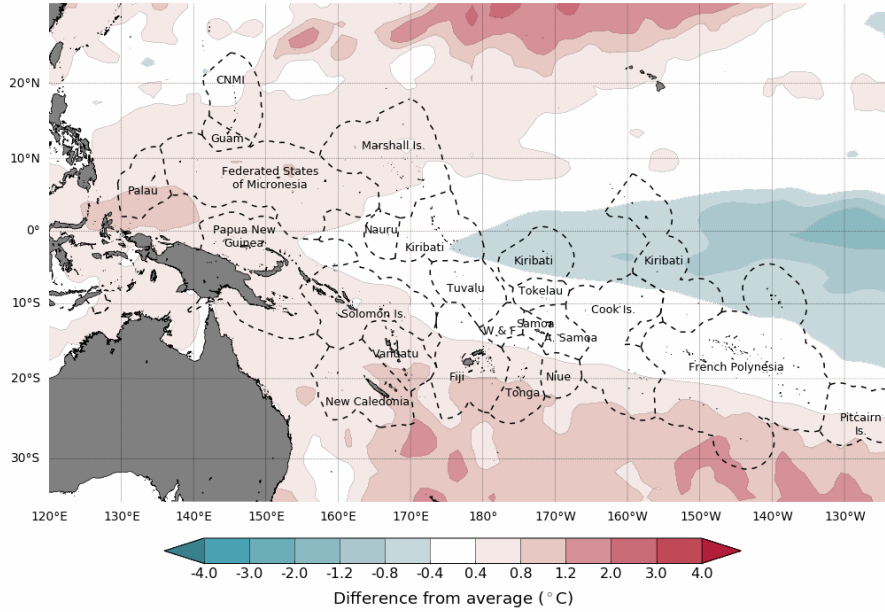
Sea surface temperature outlook: Equatorial zones east of Kiribati (Gilber Islands) is forecasted to have cooler than normal conditions with temperature in the range of  $-0.4$  to  $-3$  °C. Nauru, Tuvalu, parts of Samoa and the Cook Islands are favoured to be neutral. A boomerang shape of warm conditions is predicted in the western and remainder of the partner countries.

Sea level outlook: sea level is forecasted to be higher than normal for countries near or in the Western Warm Pool (Palau, FSM, southern RMI, north Tuvalu, PNG, Solomon Islands, northern Fiji) , ranging from 30 to 200 mm in the western Pacific. Pools of lower sea levels is predicted in southern Fiji and Vanuatu, northern Cook Islands and Kiribati (Line Islands). Note that this outlook does not include trends of sea level rise.

Coral Bleaching Outlook: 4 weeks coral bleaching outlook indicates 'watch and warning for a number of countries and PNG and Solomon Islands is predicted to have 'Alert level 1 and 2'

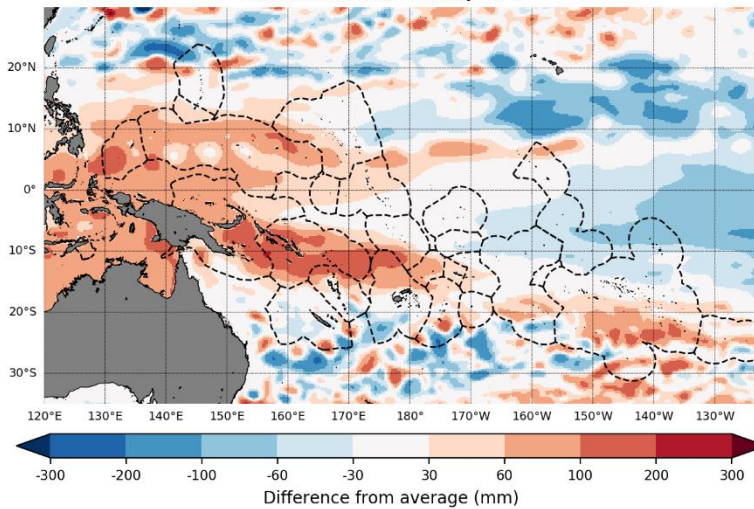
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Difference from average sea surface temperature forecast for January to March 2022



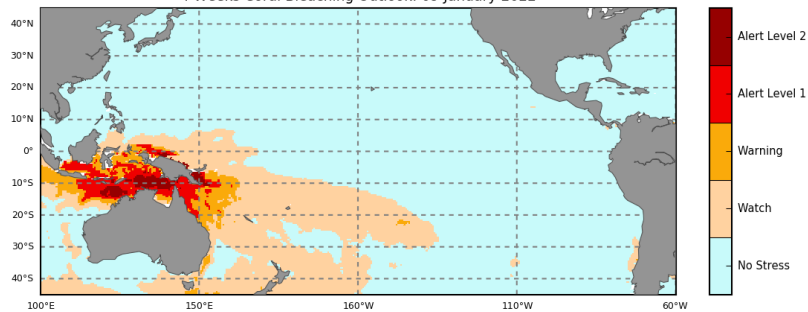
Base period: 1981-2018  
 Model: ACCESS-S2  
 © Commonwealth of Australia 2021, Australian Bureau of Meteorology  
 Model run: 13/12/2021  
 Issued: 15/12/2021  
 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinegovernance.org/>.

Difference from average sea surface height forecast for December 2021 to February 2022



© Commonwealth of Australia 2021  
 Bureau of Meteorology  
 Model: ACCESS-S2  
 Base Period: 1981-2018  
 Model Run: 28/11/2021  
 Issued: 07/12/2021

Pacific Ocean  
 4 Weeks Coral Bleaching Outlook: 09 January 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	November 2021		
	SST	SLA	CB
<b>Cook Islands</b>	AN, NN	AN	Watch & No Stress
<b>Fiji</b>	AN	AN	Watch
<b>Kiribati</b>	BN, AN	AN	Watch & No Stress
<b>Niue</b>	AN	AN	No Stress
<b>Palau</b>	AN	AN	Warning & Alert1
<b>Papua New Guinea</b>	AN	AN	Warning & Alert1-2
<b>Samoa</b>	AN	AN	Watch
<b>Solomon Islands</b>	AN	AN	Watch & Warning
<b>Tonga</b>	AN	AN	Watch
<b>Tuvalu</b>	AN	AN	No Stress
<b>Vanuatu</b>	AN	AN	Watch & No Stress

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

Country	Date November 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – Climate Bulletin	November	Ministry of Transport	29	17	12
Cook Islands - EAR Watch	November	C.I Govt. Stakeholders Public			
Cook Islands – Monthly Climate briefing	November	Climate Change	8	2	6
Fiji-Climate Summary	08 November	General public	140	106	34
Fiji-EAR Watch	09 November	Humanitarian partners	122	96	26
Fiji-Climate Outlook	29 November	General public	124	93	31
Fiji -Climate Outlook for Monasavu	30 November	Energy Fiji Limited	13	13	-
Fiji-Ocean Outlook	20 November	A number of key ocean related stakeholders	36	29	7
Fiji-ENSO Outlook	25 November	General public	142	116	26
Fiji-Meteorological Data Request	01-30 November	A range of stakeholders	28	19	9
Kiribati - Climate bulletin	26-27 November	4 villages in north Tarawa	62	40	22
Kiribati -EAR Watch	26-27 November	4 villages in north Tarawa	62	40	22
Kiribati -Ocean Bulletin	02 November	4 villages in north Tarawa	62	40	22
Kiribati- Products send via email (Media Release, bulletins, EAR Watch, Ocean Outlook)	02 November	Government and Non Government Organisations and general public subscribed to the products	118	45	73
Kiribati- Climate Data Request	1-30 November	Ocean Link In Kiritimati/SPC	2	2	
Marshall Island					



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Niue-Monthly Climate Briefing	4 November	Government Officials and staff,	40	15	35
		Weather group and Stakeholder	35	17	18
Niue –Climate Bulletin	4 November	Government Officials	60	20	40
		General public and private sector	35	15	20
Palau					
PNG – EAR Watch	30 November	Govt: National Disaster Centre, Dept. Of Transport, National Agriculture ResearchInstitute, Dept. Of Agriculture and Livestock, Provincial Disaster Coordinators, Civil Aviation Safety Authority, Climate Change Development Authority, Dept. Of Mineral Policy and Geohazard Managment, PNG DFAT, Centre of Environmental Protection Authority, National Capital District Commission, Dept. of Education. UN Agencies : UNDP, FAO, IOM, Oxfam. NGOs: Childfund, WVI, PNGRC. Private: Pacific Hydo Services, PNG Power, Ok Tedi Mining Ltd, Media. Aus DFAT, DAL Provincial Officers	140	91	49
Samoa- Climate outlook and cyclone briefing	2 November	SPREP	20	10	10
Samoa- Climate outlook and cyclone briefing	10 November	UNDP, Australian High Commision	20	10	10
Samoa- Climate projection	18 November	JICA and SPREP	30	15	15
Samoa – Climate summary	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
Tonga – Rainfall Outlook	19 November	Government ministries, NGOs, Media, Private sectors	155	118	37
Tonga -Ocean Outlook	19 November	Government ministries, NGOs, Media, Private sectors	155	118	37
Tuvalu					
Vanuatu-NCOF	November	BOM, SPREP, Vanuatu Meteorology & Geo-Hazards Department (Staffs), Farmers, World Vision Vanuatu, Vanuatu National Disaster Management Office (NDMO), VMGD-Van-KIRAP Staffs, Agriculture Sector, Fisheries Sector, Water Sector, Tourism Sector	56	46	10
Vanuatu-Climate Update	12 November	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	12 November	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	12 November	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-Community Climate Update	17 November	VMGD-Van-KIRAP Staffs, Action Aid Vanuatu, Vanuatu National Disaster Management Office (NDMO), Vanuatu Red Cross Society, Vanuatu Care International, Save the Children Vanuatu, Vanuatu Meteorology & Geo-Hazards Department (Staffs), General Public (Facebook)	22	16	6
Vanuatu-Noticeboards updates	20 November	Pango (1), Erakor (3), Eratap (3), Teouma (1), Eton (1), Korongo (1), Korangua School (1), Pangpang (1), Epau (1), Ekipe School (1), Epule (1), Onesua College (1), Emua (1), Saama (1), Malatia School (1), Siviri (1), Malafau (1), Tanoliu (1), Mangaliliu (1), Mele School (1), Waisisi (1)	25		
<b>Total</b>			<b>2,578</b>	<b>1609</b>	<b>990</b>

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