

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 186 Summary Report

Date: Wednesday 15 March 2023

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

Host: SPREP

Chair: Tuvalu

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 SPP (Bureau of Meteorology and SPREP) project team.
- In addition, it serves as an online training forum for recent ACCESS 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, CliKp 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 **14 April 2023** and is to be chaired by **Vanuatu**.

Participants:

The Forum was attended by 24 climate officers (12 female) from 9 partner PIC NMSs.

Cook Islands:

Fiji: Jasneel Chandra

Kiribati: Mwata Keariki and Kamaitia Rubetaake

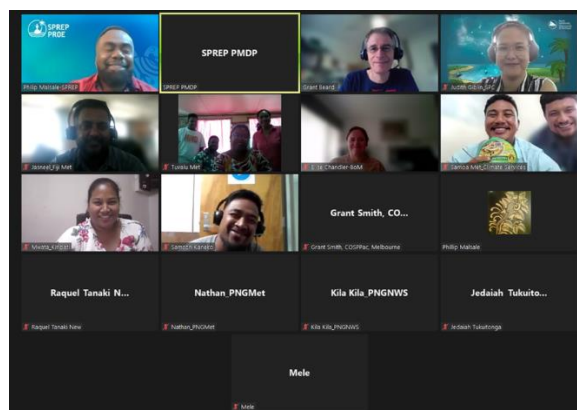
Niue: Rossy Mitiepo, Raquel Tanaki, Julynn Motusa, Helen Tukutama, Floyd Viliamu, Jedaiah Tukuitonga

Papua New Guinea: Kila Kila, Nathan Kima and Solace

Palau:

Republic of Marshall Islands: Samson Kaneko and Julius Edward

Samoa: Koton Faasau, Taumensina Fomai, Emmanuel Etimani and Mathania Salesa



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Solomon Islands: Max Sitai Tonga: Mele Lakai and Gary V Tuvalu: Leiti Fasiai, Simoea Tiute and Aaron Puafitu Vanuatu: Australia: Grant Beard and Elise Chandler SPREP: Philip Malsale and Tile Tofaeono SPC: Judith Giblin	
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OCOF tables were received from 10 participating countries before the meeting.

Observations of December 2022 to February 2023:

Observed rainfall for the one and three-month periods ending February 2023 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
Nadi Airport, Fiji	February	688.6	118	123
Lautoka Mill, Fiji	February	643.7	79	81
Suva, Fiji	February	425.3	74	82
Penang Mill, Fiji	Dec-Feb	1580.3	100	110
Lautoka, Fiji	Dec-Feb	1471.0	115	123
Nadi Airport, Fiji	Dec-Feb	1746.1	78	80
Ono-i-lau	Dec-Feb	1007.3	71	72
Rotuma, Fiji	Dec-Feb	580.5	5	107
Arorae, Kiribati	Dec-Feb	18.7	1	54
Hanan Airport, Niue	February	522.2	109	118
Wewak, PNG	February	255.0	65	67
Momote, PNG	February	430.0	70	72
Auki, Solomon Islands	February	167.0	5	62
Nuku'alofa, Tonga	Dec-Feb	1090.0	77	79
Nanumea, Tuvalu	February	52.0	7	83
Niulakita, Tuvalu	February	91.3	4	71
Niulakita, Tuvalu	Dec-Feb	558.5	9	68

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

April to June 2023 Outlooks:

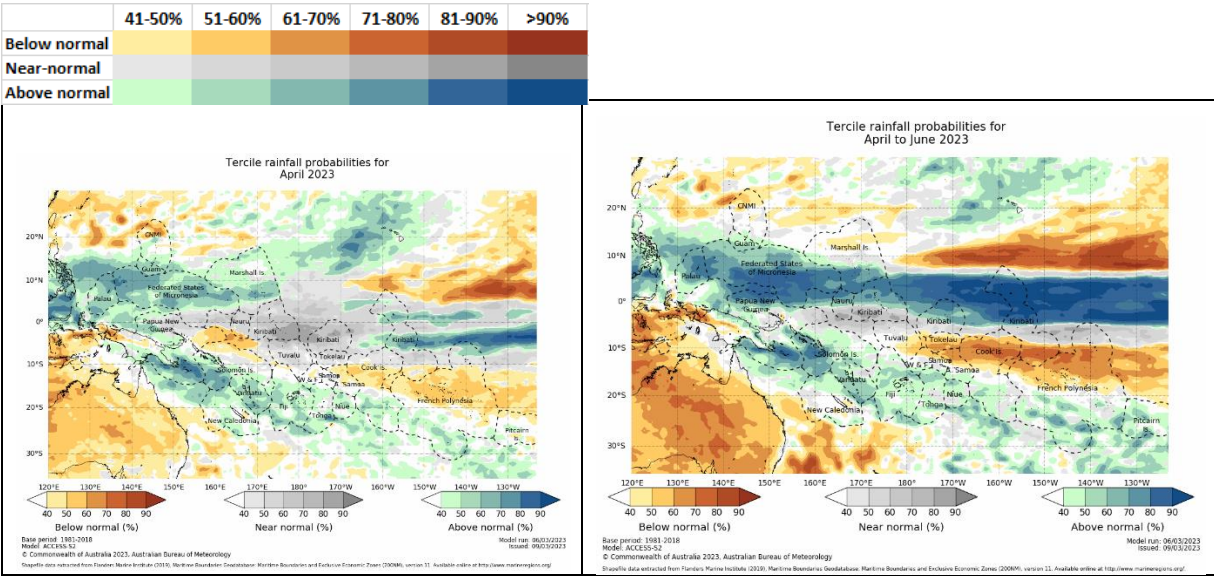
ACCESS-S outlooks:

The ACCESS-S outlook for April to June 2023 shows a region where below normal rainfall is very likely stretching east from Tuvalu to northern French Polynesia in the east. Parts of the PNG mainland and PNG Islands are also likely to receive below normal rainfall.

Further north, the ACCESS model shows the opposite signal, that is, above average rainfall being likely or very likely in a band stretching east-southeast from Palau across to northern Line Islands. In the southern hemisphere, above normal is favoured from southeast PNG, across the Solomon Islands, Vanuatu, Fiji, Tonga, Niue, the southern Cook Islands, and southern French Polynesia.

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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).



	Mar-May 2023	Apr-Jun 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		

March to May 2023		
ACCESS- 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		

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Other matters Discussed:

- OCOF 187 will be hosted by SPREP via zoom on the 14 April 2023
- April PICO 12 2023 tentative date: 20 April 2023
- NMS to document impacts of La Niña

Link to OCOF 186 recording - https://sprep.zoom.us/rec/share/ttvSrLlgqCn_EGos-gph5or5V1l_sZe2wvYMyo5IOzfFLwDFQNLUEtLwSx0IAyDp.uiX-ofE15CGNxbHd

Passcode: ThCy4uz+

Observed Rainfall

Country	February 2023	December 2022 to February 2023
Cook Islands		
Fiji	Mainly above normal to normal	Mostly normal and above normal
Kiribati	Mostly below normal and normal	Mostly below normal
RMI	Below normal and above normal	Normal and above normal
Niue	Above normal	Above normal
Palau	Normal	Normal
Papua New Guinea	Normal and above normal	Mostly normal and above normal
Samoa	Normal	Normal
Solomon Islands	Mostly normal and above normal	Normal and above normal
Tonga	Mostly above normal	Below normal and above normal
Tuvalu	Mostly below normal	Mostly below normal
Vanuatu		

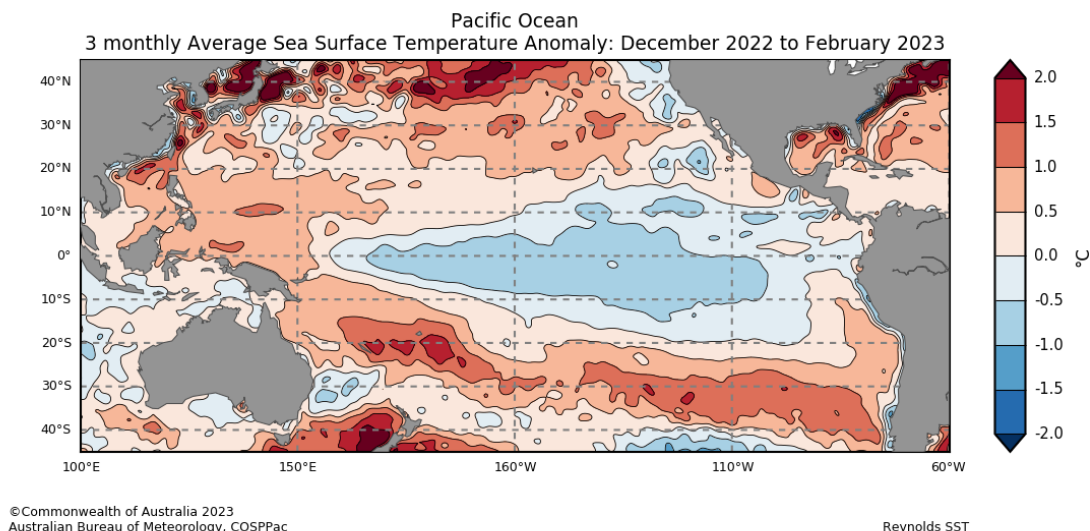
Ocean Conditions

Observations of December 2022 to February 2023

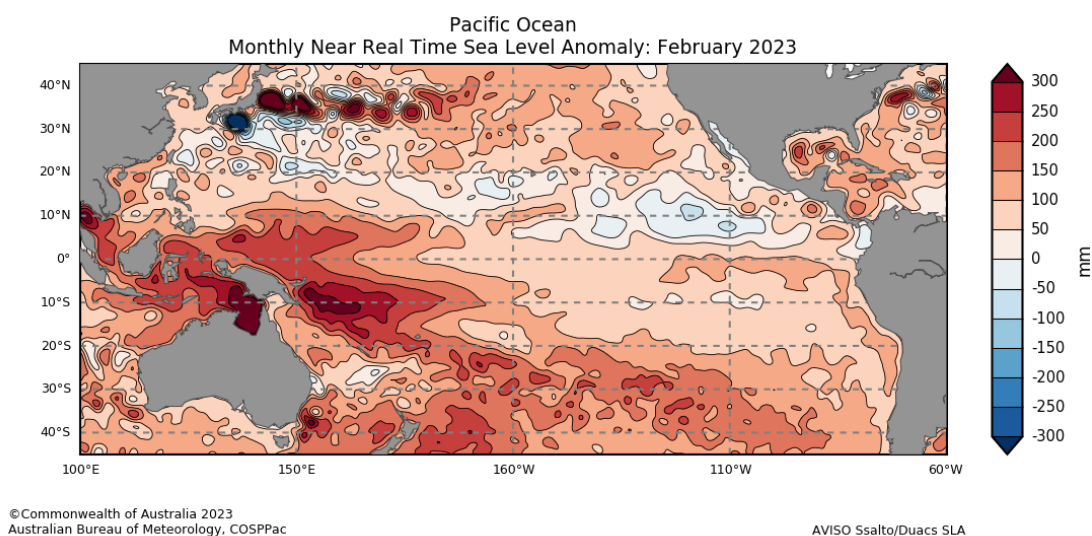
Sea surface temperature:

Three-monthly SST anomalies show 0.5°C to 1.0°C below normal along the near-equatorial regions including Nauru, far north-eastern Tuvalu, Kiribati, and the far northern Cook Islands. SSTs were near-normal (within 0.5°C of average) over most of the Marshall Islands, eastern FSM, far eastern PNG, Tuvalu, Tokelau, Samoa, American Samoa, eastern Niue, and majority of the Cook Islands. Above normal temperatures persisted in the remaining partner countries stretching from Palau to southern Niue, with SST anomalies above +1.5°C stretching south-eastward from Vanuatu to Tonga.

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February sea level was above normal over most of COSPPac countries, with exception to northern RMI, far northern Line group, Kiribati, and central Cook Islands where sea level was close to normal. Anomalies above +250 mm were observed in southeastern PNG, the Solomon Islands, western Tuvalu, Vanuatu, northern New Caledonia, and in patches of Fiji, and southeastern Tonga. In addition, a few small parts of FSM also had anomalies over +250 mm. Sea level was generally 100 mm to 250 mm above average elsewhere.



April to June 2023 Outlooks:

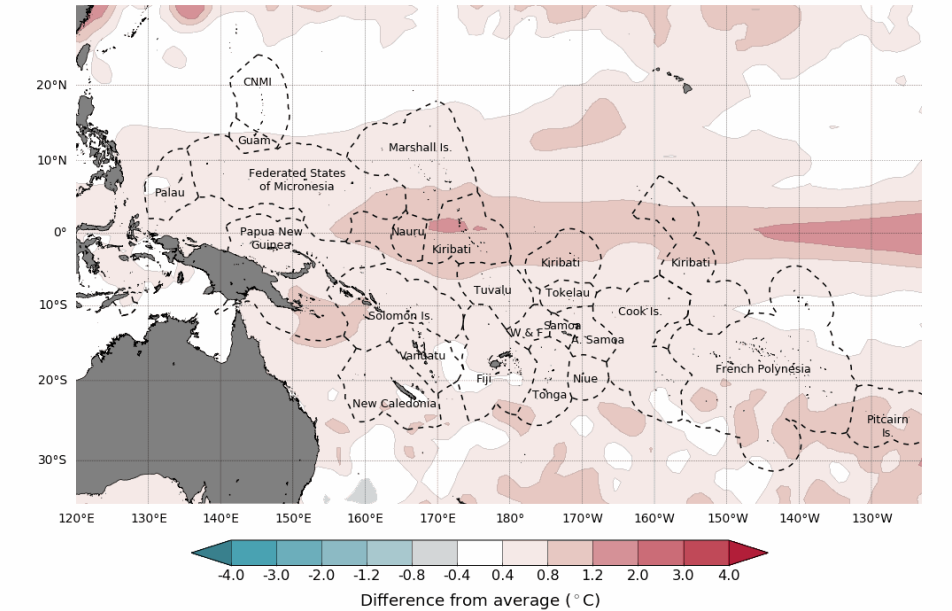
Sea surface temperature outlook: SSTs are forecast to be 0.4 to 1.2 °C affecting majority of countries in the western tropical Pacific. SSTs within 0.8 to 1.2 °C are forecasted for far eastern FSM, southern RMI, Nauru, south-eastern PNG, western Solomon Islands, and Kiribati (Gilbert, northern Phoenix, and northern Line Islands).

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 along the equator, stretching over northern PNG, Nauru, and Kiribati (Gilbert Islands, northern Phoenix Islands and northern Line Islands). The second region extends southeastward from southern PNG to Pitcairn Island, with patches of near normal sea levels over Fiji, Tonga, Niue, and majority of Cook Islands. Pools of below average sea levels –30mm to –100mm are predicted in northern and central RMI, FSM, Palau, Tuvalu, Tokelau, northern Cook Islands, Kiribati (southern Line Islands), and northern French Polynesia. Note that this outlook does not include trends of sea level rise.

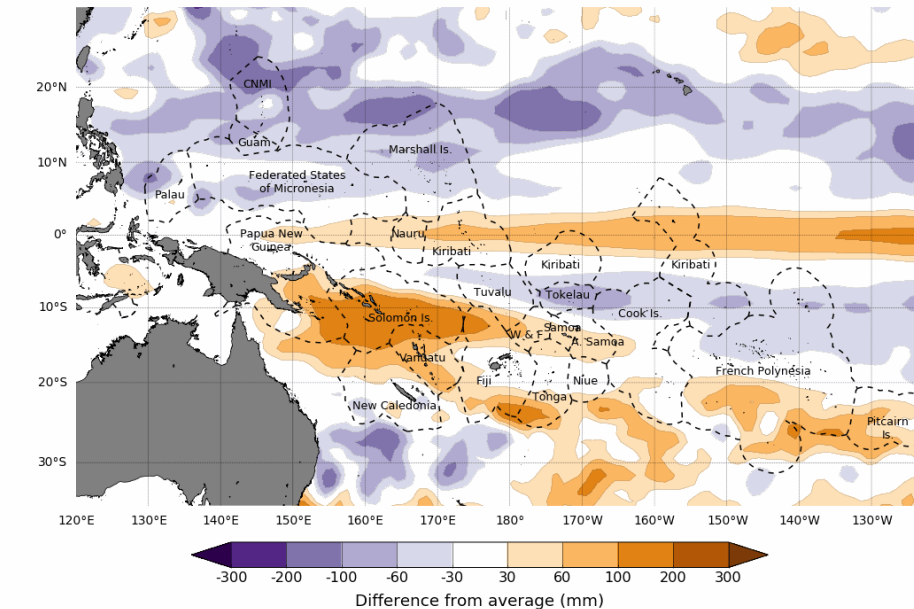
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Coral Bleaching Outlook: For the four weeks to 26 March, a broad region of "Alert Levels 1 and 2" located in southeast PNG, Vanuatu, Fiji, Tonga, and southern Cook Islands. 'Warning' areas, which surround the Alerts 1 and 2, in southeast PNG, southern Solomon Islands, northern Vanuatu, Fiji, Tonga, Samoa, Niue, and central Cook Islands. 'Watch' status affects far southern FSM, Tuvalu, southern Line Islands of Kiribati, and northern Cook Islands. The remaining countries are predicted to experience "no thermal stress".

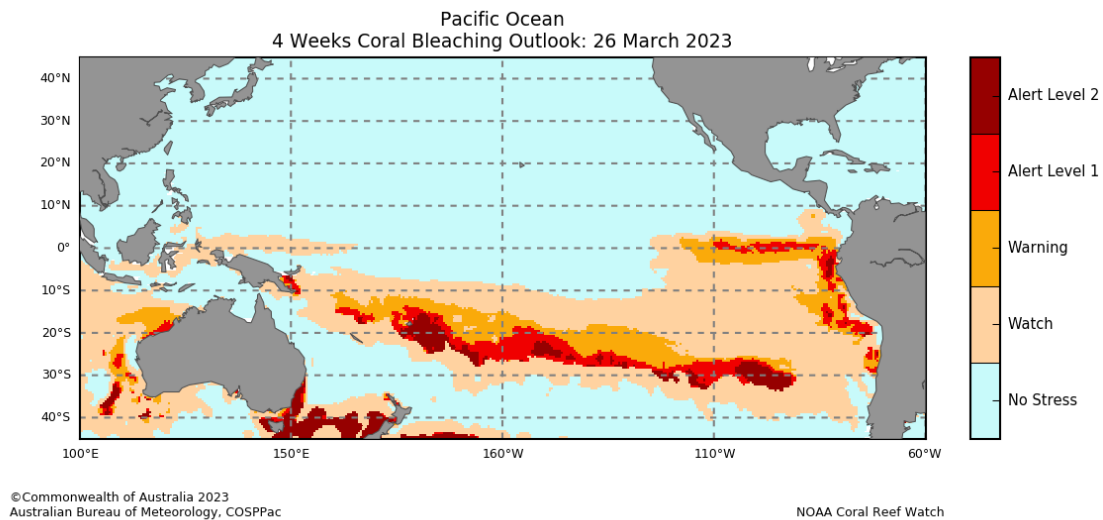
Difference from average sea surface temperature forecast for
April to June 2023



Difference from average sea surface height forecast for
April to June 2023



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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	February 2023		
	SST	SLA	CB
Cook Islands	NN	AN	Warning
Fiji	AN	AN	Alert2
Kiribati	BN	AN	No Stress
Marshall Islands	NN, AN	AN	No Stress
Niue	NN	AN	Warning
Palau	AN	AN	Watch
Papua New Guinea	AN	AN	Alert2
Samoa	NN, AN	AN	Warning
Solomon Islands	AN	AN	Alert1
Tonga	AN	AN	Alert2
Tuvalu	NN	AN	Watch
Vanuatu	AN	AN	Alert2

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

Country	Date February 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – EAR Watch	February	<i>No engagement</i>			
Fiji - Climate Summary	07 February	General public	140	106	34
Fiji - EAR Watch	10 February	Humanitarian partners	122	96	26
Fiji - Climate Outlook	27 February	General public	124	93	31
Fiji - Climate Outlook for Monasavu	27 February	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	20 February	A number of key ocean related stakeholders	36	29	7
Fiji - Meteorological data request	01-28 February	A range of stakeholders	44	33	11
Kiribati - Climate bulletin	08 February	Government and Non-Government Organisations and public subscribed to the products.	161	45	73
Kiribati - Ocean Bulletin	08 February	Government and Non-Government Organisations and public subscribed to the products.	161	45	73
Kiribati - Media release	08 February	National Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	14 February	Island Council Mayors and clerks, KMS staff	52	30	22
Marshall Island – Climate briefing	17 February	Office of the Chief Secretary and the NDMO	7	3	4
Niue – Monthly Climate bulletin	21 February	<ul style="list-style-type: none"> • Private Sector • Government Officials • Government staff • Stakeholders 	45	20	25
Palau - EAR Watch	10 February	National Emergency Committee (NEC) <ul style="list-style-type: none"> • Office of the Vice President • Office of the President • NEMO Coordinator • National Weather Service 	28	19	9

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		<ul style="list-style-type: none"> • 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 – Seasonal Climate Outlook	17 February	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 – Ocean Outlook	17 February	NMSA, National Fisheries, UPNG, Central Province Fisheries Division, NGOs, Dept of Transport, FAO, Media	58	41	17
PNG – Drought Update	20 February	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	120	75	45

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		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.			
Samoa – EAR Watch	25 February	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	16 February	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	February	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	February	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	February	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

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Tonga -Ocean Outlook	3 February	Government ministries, NGOs, Media, Private sector	155	118	37
Tonga -Climate Outlook	3 February	Government ministries, NGOs, Media, Private sector	155	118	37
Tuvalu-Climate Bulletin	February	Met staffs,	22	17	5
		Disaster Members	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
Tuvalu - EAR Watch	February	All civil servants	2		
		All kaupule members			
		Met staffs,	22	17	5
		Disaster Members	2	2	
		TRC	2	1	1
Tuvalu - Monthly Climate briefing	February	TuCAN	2	1	1
		Agriculture	1	1	
		All civil servants	2		2
		All kaupule members			
		Met staffs,	22	17	5
Tuvalu -Ocean Outlook	February	Disaster Members	2	2	
		TRC	2	1	1
		TuCAN	1	1	
		Agriculture	2		2
		All civil servants	2		
Tuvalu - Climate data request	01-28 February	All kaupule members			
		Students	2		2
Vanuatu	February	<i>No engagement</i>			
Total			2,018	1,269	663

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