

Seasonal Prediction Project (SPP)

Pacific Islands – Ocean and Climate Outlook Forum No. 187 Summary Report

Date: Friday 16 April 2023

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

Host: SPREP

Chair: Vanuatu

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 **18 May 2023** and is to be chaired by **Fiji**.

Participants:

The Forum was attended by 23 climate officers (9 female) from 9 partner PIC NMSs.

Cook Islands:

Fiji: Jasneel Chandra, Arieta Baleisolomone and Shweta Shiwangni

FSM: Wallace Jacobs and Sammy Rettin

Kiribati: Mwata Keariki, Kamaitia Rubetaake and Mririam Kataunati

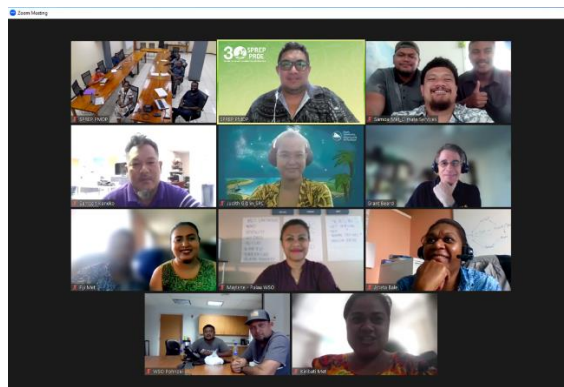
Niue:

Papua New Guinea: Nanao Bouauka

Palau: Kiku Mochimaru and Maylene

Republic of Marshall Islands: Samson Kaneko

Samoa: Kotoni Faasau, Emmanuel Etimani and Mathaniah Salesa



Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Solomon Islands: Max Sitai Tonga: Tuvalu: Vanuatu: Jerry Timothy, Glenda Pakoa, John Ruben, John Mangau, Stephen Tom, Kalsuak Godden, Leo Tamata Australia: Grant Beard SPREP: Philip Malsale and Tile Tofaeono SPC: Judith Giblin	
---	--

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

Observations of January to March 2023:

Observed rainfall for the one and three-month periods ending March 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
Laucala Bay, Fiji	March	157.2	8	82
Nausori airport, Fiji	March	140.4	3	67
Nadi Airport, Fiji	Jan -Mar	1715.8	76	80
Rotuma, Fiji	Jan -Mar	694.7	6	110
Beru, Kiribati	March	1.4	6	67
Arorae, Kiribati	Jan - Mar	42.2	7	46
Nadzab, PNG	March	25.6	2	47
Vanimo, PNG	March	145.4	7	70
Momote, PNG	March	136.2	5	72
Nadzab, PNG	Jan -Mar	305.0	4	46
Munda, Solomon Islands	March	590.6	56	62
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]

May to July 2023 Outlooks:

ACCESS-S outlooks:

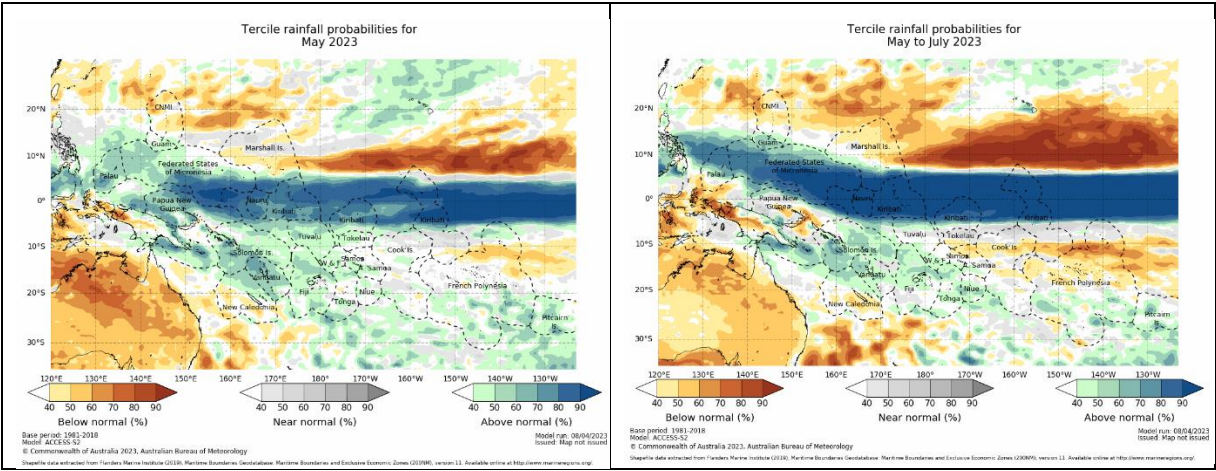
The ACCESS-S outlook for May to July 2023 shows a region where below normal rainfall is likely or very likely stretching east from Samoa to northern French Polynesia in the east, and from CNMI to central Marshall Islands in the north Pacific. Parts of the PNG highlands region and PNG Islands are also likely to receive below normal rainfall.

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 likely from southeast PNG, across the Solomon Islands, Vanuatu, the northern half of Fiji, Tonga, Niue, southern French Polynesia and Pitcairn Island.

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

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).

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



April to June 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			

ACCESS-S		Apr-Jun 2023	May-Jul 2023
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			

Other matters Discussed:

- OCOF 188 will be hosted by SPREP via zoom on the 18 May 2023
- Encourage all to register for April PICO 12, 2023
- Vanuatu seasonal forecast training
- Welcome Federated States of Micronesia to OCOF

Observed Rainfall

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

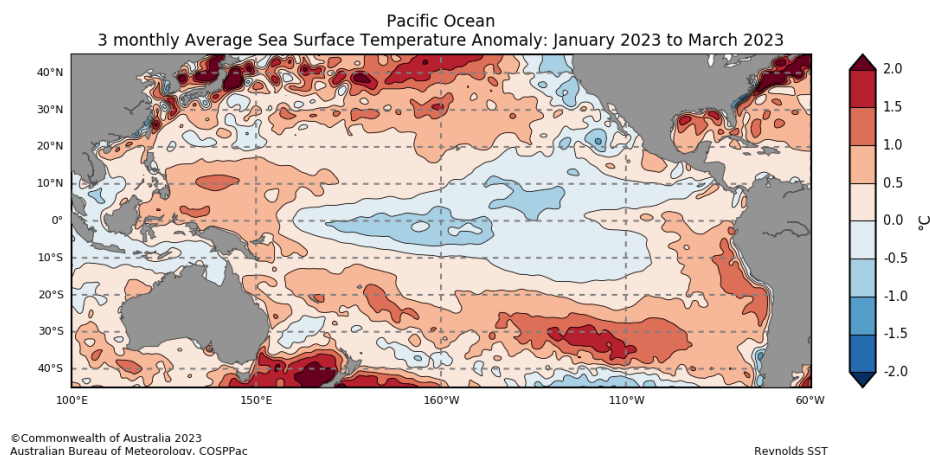
Ocean Conditions

Observations of January 2022 to March 2023

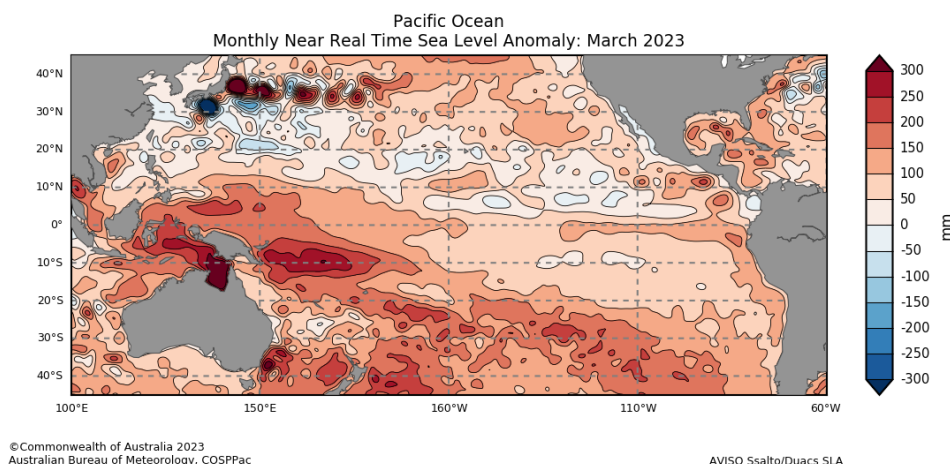
Sea surface temperature:

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

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)



March sea level was above normal over most of COSPPac countries, with exception to northern Palau, 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 eastern Palau, eastern PNG, the Solomon Islands, and in patches of Fiji, and southeastern Tonga. Sea level was generally 100 mm to 250 mm above average elsewhere.



May to July 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 southeastern PNG, western Solomon, southern Vanuatu, northern New Caledonia, southern Fiji, southern Tonga, western Niue, Tuvalu and Kiribati. SSTs within 1.2 to 2.0 °C above normal are forecasted for southeastern PNG, far southern Fiji, and Kiribati (central Gilbert, northern Phoenix and northern Line Islands).

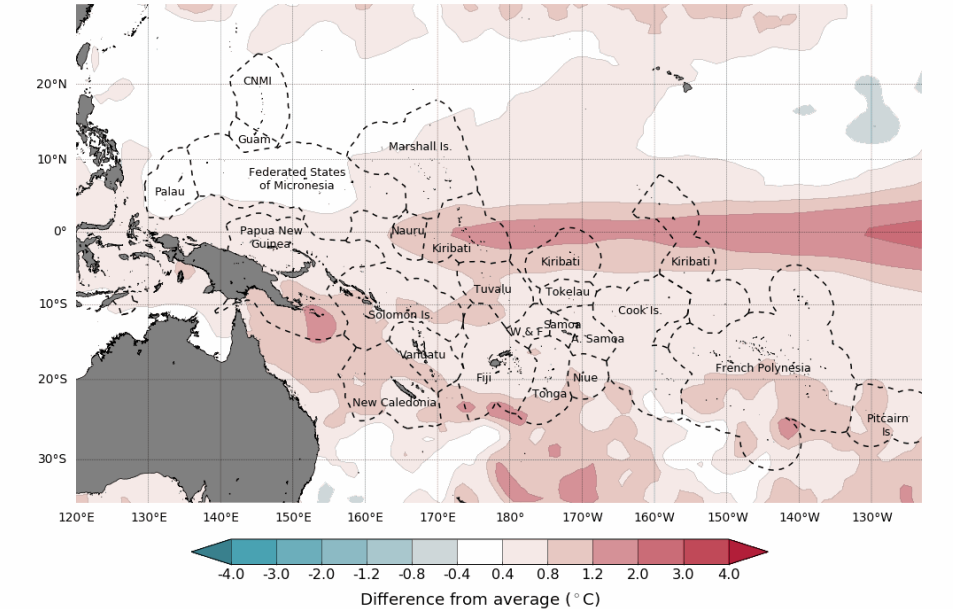
Sea level outlook: Sea level is forecast to be 30-100mm above normal for countries within two main regions: the first region aligned West-East along the equator, stretching from Nauru to Kiribati (central Gilbert Islands, northern Phoenix Islands and northern Line Islands). The second region extends southeastward from southeastern PNG to Pitcairn Island, with patches of near normal sea levels over Fiji, Tonga, western Niue, and majority of Cook Islands. Sea level anomalies from 100-200mm above normal are forecasted for far southeastern PNG, Solomon, and far southern Fiji. Pools of below average sea levels –30mm to –100mm are predicted for most of RMI, central FSM, eastern Palau, Tuvalu, Tokelau, northern Cook Islands, Kiribati (southern Phoenix and southern Line Islands), northern Cook Islands, and northern French Polynesia. Note that this outlook does not include trends of sea level rise.

Coral Bleaching Outlook: For the four weeks outlook to 14 May, "Alert Levels 1 and 2" located in PNG, southern Solomon, northern Vanuatu, and far southern Palau. Broad region of 'Warning' areas stretching

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

across two regions. The first region aligned West-East along the equator, stretching from Palau to northern Line Group, Kiribati. The second region of 'Warning' stretching southeastward from PNG to northern Fiji. 'Watch' status affects FSM, RMI, Vanuatu, Samoa, central Cook Islands. The remaining countries are predicted to experience "no thermal stress".

Difference from average sea surface temperature forecast for
May to July 2023

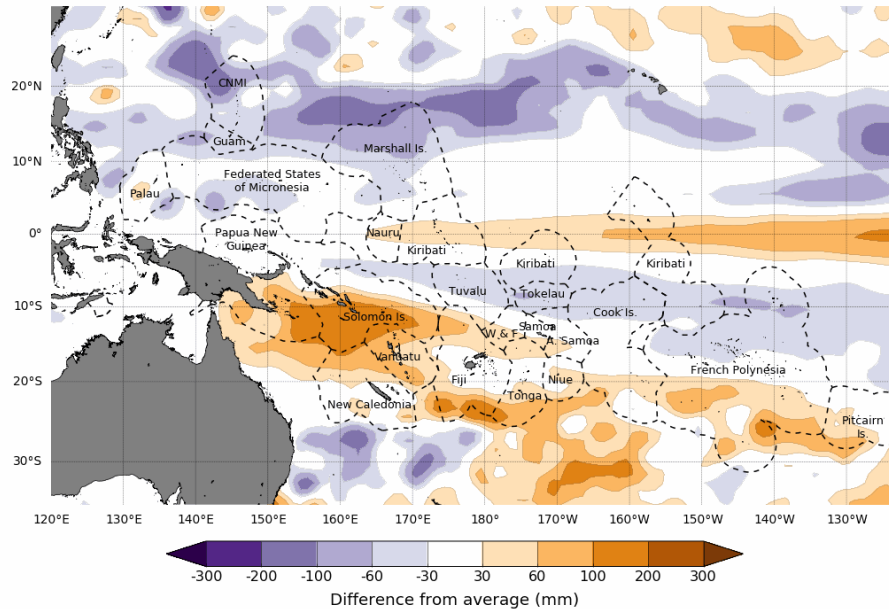


Base period: 1981-2018
Model: ACCESS-S2
© Commonwealth of Australia 2023, Australian Bureau of Meteorology

Model run: 17/04/2023
Issued: 19/04/2023

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
May to July 2023

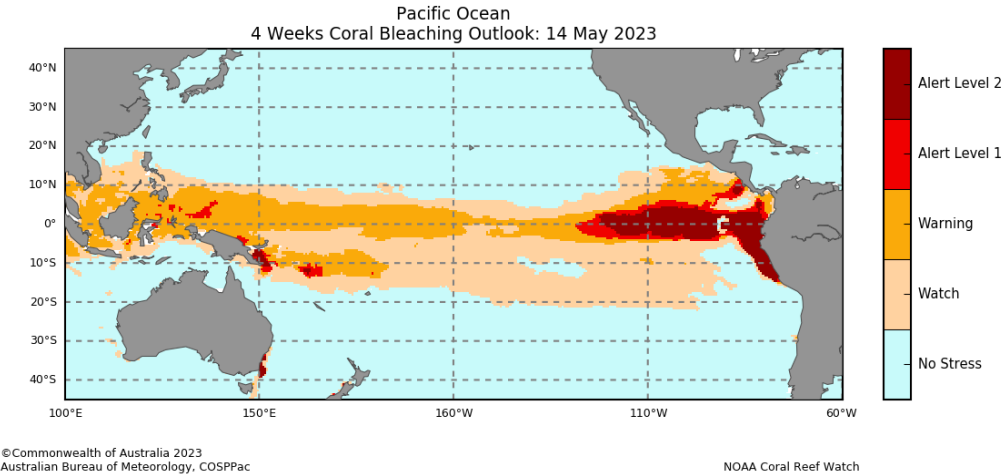


Base period: 1981-2018
Model: ACCESS-S2
© Commonwealth of Australia 2023, Australian Bureau of Meteorology

Model run: 17/04/2023
Issued: 19/04/2023

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/>.

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)



Observed Conditions

SST: sea surface temperature anomaly
SLA: sea level anomaly
CB: coral bleaching
BN: Below Normal
NN: Near Normal
AN: Above Normal

Country	March 2022	
	SST	SLA
Cook Islands	AN	AN
Fiji	AN	AN
Kiribati	NN	AN
Marshall Islands	AN	AN
Niue	NN	AN
Palau	AN	AN
Papua New Guinea	AN	AN
Samoa	NN	AN
Solomon Islands	AN	AN
Tonga	AN	AN
Tuvalu	NN	AN
Vanuatu	AN	AN

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

Country	Date March 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands – EAR Watch	March	<i>No engagement</i>			
Fiji - Climate Summary	07 March	General public	140	106	34
Fiji - EAR Watch	10 March	Humanitarian partners	122	96	26
Fiji - Climate Outlook	31 March	General public	124	93	31
Fiji - Climate Outlook for Monasavu	31 March	Energy Fiji Limited	13	13	-
Fiji - Ocean Outlook	20 March	A number of key ocean related stakeholders	36	29	7
Fiji -ENSO update	27 March	General public	142	116	26
Fiji – Sugarcane rainfall outlook	29 March	Sugarcane Industry stakeholders	77	60	17
Fiji - Meteorological data request	01-31 March	A range of stakeholders	43	34	9
Kiribati - Climate bulletin	15 March	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati - Ocean Bulletin	15 March	Government and Non-Government Organisations and public subscribed to the products.	118	45	73
Kiribati - Media release	15 March	National Media and KMS Staffs	53	23	30
Kiribati – EAR Watch	15 March	Island Council Mayors and clerks, KMS staff	62	35	27
Marshall Island – Climate briefing	17 March	Office of the Chief Secretary and the National Disaster Management Office	6	3	3
Niue – Monthly Climate bulletin	22 March	• Niue Women Council	30	3	27

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Palau - EAR Watch	21 March	National Emergency Committee (NEC) • 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
Palau- Emergency Siren Training Testings	15-21 March	Same stakeholders as above	28	19	9
Palau – Early Warning System (EWS) Workshop	22-24 March	Same stakeholders as above	28	19	9
PNG – Seasonal Climate Outlook	18 March	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.	154	110	44

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

PNG – OK Tedi briefing	17 February	OTML	11	8	3
PNG – Drought Update	16 March	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.	120	75	45
PNG – Climate data request	1-31 March	Water PNG	3	3	1
Samoa	March	<i>No Engagement</i>			
Solomon Islands – Climate bulletin	March	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	March	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	March	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 -Ocean Outlook	3 March	Government ministries, NGOs, Media, Private sector	155	118	37

Australian Aid Project: Climate and Oceans Support Program in the Pacific (COSPPac)

Tonga -Climate Outlook	3 March	Government ministries, NGOs, Media, Private sector	155	118	37
Tuvalu	March	<i>No engagement</i>			
Vanuatu	March	<i>No engagement</i>			
Total			1,891	1,284	613

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