

Climate and Oceans Monitoring and Prediction (COMP)

Pacific Islands - Online Climate Outlook Forum No. 103 Summary Report

Date: Tuesday 12 April 2016

Time: Australian Eastern Daylight Time 11:00AM (01:00 UTC)

Chair: Bureau of Meteorology

Main purpose for the OCOF:

- To provide a regular forum for the 11 participating PIC NMSs to discuss the current ENSO status, recent one and three-month rainfall, drought (if present) and their seasonal climate outlooks with other countries and the COMP 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 and the Bureau team.
2. Brief 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), and their three-month outlooks. 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. Next meeting (Tuesday 10 May - TBC) and Chair (Tonga).

Participants:

The Forum was attended by 19 climate officers from eight partner PIC NMSs.

Cook Islands: Bates Manea

Fiji: Bipen Prakash, Arieta Baleisolomone, Yogesh Maharaj, Swastika Devi

Kiribati: Mauna Eria, Kamaitia Rubetaake

Niue: Rossy Mitiepo, Mellisa Douglas, Clemencia Sioneholo, Hingano Laufoli

Papua New Guinea:

Republic of Marshall Islands: Nover Juria

Samoa: Junior Lepale

Solomon Islands: Lloyd Tahani, Max Norman, Noel Sanau

Tonga:

Tuvalu:

Vanuatu: Shanna Joseph, Daphne Nalawas, Melinda Natapei

The Bureau team: Adna Kazazic and Elise Chandler

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

* Seasonal Climate Outlooks in the Pacific Island Countries: climate prediction software developed under the PI-CPP.

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

Observations and Verification of January to March 2016 outlooks:

Observed rainfall for the one and three-month periods ending March 2016 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	Year of record
Rarotonga, Cook Islands	Mar	138	7	118
Rarotonga, Cook Islands	Jan-Mar	262	1	117
Penang Mill, Fiji	Mar	123	9	107
Laucala Bay, Fiji	Mar	110	2	75
Nausori Airport, Fiji	Mar	111	1	60
Tokotoko, Fiji	Mar	152	4	72
Lakeba, Fiji	Mar	51	1	66
Vunisea, Fiji	Mar	179	3	69
Nabouwalu, Fiji	Mar	118	4	99
Laucala Bay, Fiji	Jan-Mar	609	5	75
Tokotoko, Fiji	Jan-Mar	573	2	72
Lakeba, Fiji	Jan-Mar	393	3	66
Rotuma, Fiji	Jan-Mar	627	5	103
Kanton, Kiribati	Mar	354	57	59
Kiritimati, Kiribati	Mar	327	85	91
Tarawa, Kiribati	Mar	652	66	67
Kanton, Kiribati	Jan-Mar	1153	52	54
Kiritimati, Kiribati	Jan-Mar	1538	87	88
Tarawa, Kiribati	Jan-Mar	1881	67	67
Majuro, RMI	Mar	34	6	62
Majuro, RMI	Jan-Mar	143	3	62
Kwajalein, RMI	Jan-Mar	90	7	72
Henderson, Solomon Is	Mar	499	40	42
Henderson, Solomon Is	Jan-Mar	1317	40	42
Kirakira, Solomon Is	Jan-Mar	536	2	48
Taro, Solomon Is	Jan-Mar	420	1	39
Niuaotuputapu, Tonga	Jan-Mar	308	2	70
Nanumea, Tuvalu	Jan-Mar	1508	73	76
Funafuti, Tuvalu	Jan-Mar	720	7	84
Port Vila, Vanuatu	Mar	120	5	64
Sola, Vanuatu	Jan-Mar	570	1	44
Pekoa, Vanuatu	Jan-Mar	421	3	46
Lemap, Vanuatu	Jan-Mar	211	1	55
Bauerfield, Vanuatu	Jan-Mar	397	1	44
Port Vila, Vanuatu	Jan-Mar	197	1	64

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

Aneityum, Vanuatu	Jan-Mar	500	6	65
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[Note: The above data may not have undergone quality control]

Validation of forecasts with observed rainfall for the December to February (OCOF #99) period showed 36 consistent, 15 near-consistent and 4 inconsistent outlooks (55 stations across 10 countries).

A summary of results (C-consistent, NC-Near Consistent, I-Inconsistent, NA-not available) for each country for the January to March 2016 outlook is as follows:

Cook Islands (2C); Fiji (10C, 2NC, 1I); Kiribati (3C, 1NC); Niue (1NC); PNG (NA); RMI (2C); Samoa (3C, 1NC); Solomon Islands (3C, 3NC, 1I); Tonga (3C,3NC); Tuvalu (1C,2I) and Vanuatu (6C,1NC).

Overall: 35C, 15NC, 4I.

April to June 2016 Outlooks:

Of the ten countries contributing reports to OCOF #102, the following predictors and periods were selected: Three-month average NINO3.4 (January-March) – four countries, Two-month average NINO3.4 (February-March) – five countries and one-month average NINO3.4 (March) – one country. NINO3.4 two-month average is recommended as this predictor/period is associated with the highest three-month outlook skill on a regional scale.

Sixty-eight percent of the 60 stations outlooks had the highest probabilities in tercile 1, 7% in tercile 2 and 20% in tercile 3. The remaining 5% had either near equal probabilities in two terciles, near equal probabilities in three terciles or a mixed outlook.

POAMA outlooks: Sixty-eight percent of the 40 station outlooks favoured tercile 1, 7% tercile 2 and 25% tercile 3.

ENSO summary for the March 2016 OCOF

ENSO Status

The decline of the 2015–16 El Niño continues in the tropical Pacific. Temperatures below the ocean surface have cooled steadily, with only the top 50 meters more than +1 °C warmer than normal. It is likely this is the coolest this top layer of ocean has been since January 2015.

ENSO Outlook

The 2015-16 El Niño has been steadily declining since its peak in November/December. Climate models suggest the El Niño will continue to weaken during the southern autumn (March-May) and winter months (June-August). By the end of winter, model outlooks are evenly split between ENSO neutral and La Niña.

For more information please see:

COSPPac monthly climate bulletin at <http://www.bom.gov.au/cosppac/comp/bulletin/index.shtml>

Bureau of Meteorology ENSO wrapup at <http://www.bom.gov.au/climate/enso/>

Other Discussion

No other discussion during the teleconference

Observed Rainfall and Validation

Country	March 2016	January to March 2016	Verification[†] for January to March 2016 outlooks
Cook Islands	Below normal to normal	Below normal to above normal	Consistent
Fiji	Below normal (normal at Lautoka and Nadi)	Below normal (normal at Lautoka and Nadi)	Consistent to near consistent (inconsistent at Tokotoko)
Kiribati	Above normal (below normal at Butaritari)	Above normal (normal at Butaritari)	Consistent (near consistent at Butaritari)
Niue	Normal	Normal	Near consistent
Papua New Guinea			
RMI	Below normal	Below normal	Consistent
Samoa	Normal (below normal at Apia and above normal at Faleolo)	Below normal	Consistent (near consistent at Afiamalu)
Solomon Islands	Below normal to above normal	Below normal (normal at Auki and above normal at Henderson)	Consistent to near consistent (inconsistent at Henderson)
Tonga	Below normal to normal	Below normal to normal	Consistent to near consistent
Tuvalu	Below normal to above normal	Below normal (above normal at Nanumea)	Inconsistent (consistent at Nanumea)
Vanuatu	Below normal to above normal	Below normal (normal at Whitegrass)	Consistent (near consistent at Aneityum)

[†] Forecast is consistent when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is near-consistent when observed and predicted (tercile with the highest probability) differ by only one category (i.e. terciles 1 and 2 or terciles 2 and 3).

Forecast is inconsistent when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).