

Climate and Oceans Monitoring and Prediction (COMP)

Pacific Islands - Online Climate Outlook Forum No. 105 Summary Report

Date: Tuesday 14 June 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 12 July - TBC) and Chair (Marshall Is).

Participants:

The Forum was attended by 20 climate officers from ten partner PIC NMSs.

Cook Islands: Bates Manea

Fiji: Bipen Prakash, Yogesh Maharaj, Swastika Devi

Kiribati: Mauna Eria

Niue: Rossy Mitiepo, Mellisa Douglas, Sean Tukutama, Hingano Laufoli

Papua New Guinea: Agnes Diap, Ruth Apuqahe

Republic of Marshall Islands: Nover Juria, Samson Kanenko

Samoa: Junior Lepale, Faapisa Aiono, Vaueli Su'a

Solomon Islands: Max Sitai

Tonga: Mele Lakai, Seluvaia Finaulahi

Tuvalu:

Vanuatu: Shanna Joseph, Daphne Nalawas

The Bureau team: Grant Smith, Simon McGree, Melissa Matthews and Elise Chandler

OCOFC tables were received from eleven 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 March to May 2016 outlooks:

Observed rainfall for the one and three-month periods ending May 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 |
|-----------------------|---------|----------------------|---------------|----------------|
| Penrhyn, Cook Is. | May | 279 | 71 | 78 |
| Rarotonga, Cook Is. | Mar-Ma | 247 | 5 | 118 |
| Yasawa-i-Rara, Fiji | May | 7 | 2 | 64 |
| Labasa, Fiji | May | 0 | 1 | 61 |
| Rotuma, Fiji | May | 110 | 8 | 103 |
| Tarawa, Kiribati | Mar-May | 1214 | 66 | 67 |
| Beru, Kiribati | Mar-May | 1298 | 60 | 60 |
| Kanton, Kiribati | Mar-May | 751 | 55 | 58 |
| Kiritimati, Kiribati | Mar-May | 898 | 87 | 91 |
| Madang, PNG | May | 151 | 5 | 66 |
| Madang, PNG | Mar-May | 824 | 6 | 66 |
| Goroka, PNG | Mar-May | 755 | 49 | 51 |
| Nafanua, Samoa | May | 464 | 44 | 46 |
| Apia, Samoa | May | 390 | 127 | 127 |
| Faleolo, Samoa | Mar-May | 870 | 53 | 54 |
| Kwajalein, RMI | Mar-May | 152 | 6 | 72 |
| Munda, Solomon Is | May | 122 | 5 | 55 |
| Henderson, Solomon Is | Mar-May | 896 | 37 | 41 |
| Niuatoputapu, Tonga | May | 49 | 6 | 66 |
| Ha'apai, Tonga | May | 437 | 69 | 69 |
| Nanumea, Tuvalu | Mar-May | 1293 | 76 | 76 |
| Sola, Vanuatu | May | 66 | 1 | 45 |
| Pekoa, Vanuatu | May | 24 | 2 | 46 |
| Lamap, Vanuatu | May | 6 | 1 | 56 |
| Bauerfield, Vanuatu | May | 37 | 2 | 44 |
| Port Vila, Vanuatu | May | 31 | 2 | 64 |
| Sola, Vanuatu | Mar-May | 683 | 1 | 45 |
| Port Vila, Vanuatu | Mar-May | 223 | 2 | 64 |

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

Validation of forecasts with observed rainfall for the March to May (OCOF #101) period showed 30 consistent, 20 near-consistent and 8 inconsistent outlooks (58 stations across eleven countries).

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

Cook Islands (1C, 1I); Fiji (5C, 5NC, 3I); Kiribati (4C, 1NC); Niue (1C); PNG (6C, 2NC); RMI (2C); Samoa (3NC, 1I); Solomon Islands (4C, 2NC, 1I); Tonga (5NC, 1I); Tuvalu (2C, 1I) and Vanuatu (5C, 2NC).

Overall: 30C, 20NC, 8I.

July to September 2016 Outlooks:

Fifty-nine percent of the 59 stations outlooks had the highest probabilities in tercile 1, 3% in tercile 2 and 24% in tercile 3. The remaining 14% had either near equal probabilities in two terciles, near equal probabilities in three terciles or a mixed outlook.

POAMA outlooks: Fifty-four percent of the 48 station outlooks favoured tercile 1, 17% tercile 2 and 27% tercile 3. The remaining 2% had either near equal probabilities in two terciles, near equal probabilities in three terciles or a mixed outlook.

ENSO summary for the June 2016 OCOF

ENSO Status

The 2015-16 El Niño is in its last stages. Temperatures below the ocean surface are now largely cooler than normal, and while warm anomalies remain at the ocean surface, these have been steadily cooling.

ENSO Outlook

The tropical Pacific has continued to cool, with this cooling trend expected to continue. Six of eight climate models are suggesting a possible La Niña formation during the austral winter. By September, models show a large spread between ENSO neutral and La Niña scenarios, it is expected that the model forecasts will become clearer over the coming months.

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 | May 2016 | March to May 2016 | Verification[†] for March to May 2016 outlooks |
|-------------------------|--|--|--|
| Cook Islands | Below normal to above normal | Below normal to normal | Consistent to inconsistent |
| Fiji | Below normal to normal | Below normal to above normal | Consistent to near consistent (inconsistent at 3 stations) |
| Kiribati | Normal to above normal (below normal at Butaritari) | Above normal (below normal at Butaritari) | Consistent (near consistent at Butaritari) |
| Niue | Below normal | Below normal | Consistent |
| Papua New Guinea | Below normal to normal (above normal at Momote) | Below normal to normal (above normal at Goroka and Momote) | Consistent (near consistent at 2 stations) |
| RMI | Below normal to normal | Below normal | Consistent |
| Samoa | Above normal | Normal | Near consistent (inconsistent at 1 station) |
| Solomon Islands | Above normal to below normal | Above normal to below normal | Near consistent to consistent (inconsistent at 1 station) |
| Tonga | Above normal (below normal in the northern division) | Normal to above normal (below normal at Niuatoputapu) | Near consistent (inconsistent at 1 station) |
| Tuvalu | Normal to above normal | Above normal (below normal at Niu) | Consistent (inconsistent at 1 station) |
| Vanuatu | Below normal (normal at Whitegrass) | Below normal (normal at Pekoa and Whitegrass) | Consistent (near consistent at 2 stations) |

[†] 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).