Climate and Oceans Monitoring and Prediction (COMP)

Pacific Islands - Online Climate Outlook Forum No. 65
Summary Report

Date: Thursday 14 February 2013

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

Main purpose for the OCOF:

- To provide a regular forum for the ten participating PIC NMSs to discuss the current ENSO status and their seasonal climate outlooks with the COMP project team.

In addition it will serve as the online training forum on the latest SCOPIC[*] developments and will give the project team and the NMSs an opportunity to discuss other project related matters/concerns.

 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 1 and 3 months rainfall in relation to the current ENSO situation (include ranking and verification). Wherever appropriate NMS to report on their drought status.

4. Each NMS to report on their three-month outlooks (tercile and/or median).

5. Round-table discussion: addressing general concerns/queries on outlooks and SCOPIC.

6. Skill assessment of SCOPIC and POAMA.

7. Interactions with stakeholders (new or existing)

8. Next meeting (14 March) and Chair (Samoa – Alphabetical Rotation Trial).

Participants:

The Forum was attended by twenty-five climate officers from all ten PIC NMSs.

Cook Islands: Turi Tutai

Fiji: Arieta Daphne, Swastika Devi, Bipendra Prakash

Kiribati: Ueneta Toorua, Iokenti Beniamina

Niue: Mellisa Douglas, Hingano Laufoli, Rossy Mitiepo

Papua New Guinea: Kisolel Posanau, Kila Kila, Nanao Bouauka, Kasis Inape

Samoa: Tile Tofaeono, Junior Lepale, Billy Poulima

Solomon Islands: Lloyd Tahani

Tonga: Sione Tu'ungafasi, Uinita Vea

Tuvalu: Hilia Vavae, Kilima Kilima

Vanuatu: Melinda Natapei, Robson Tigona, Mike Waiwai, Philip Malsale

The Bureau team: Elisabeth Thompson, Nicholas Summons, Grant Beard and Andrew Charles

OCOF tables were received from nine participating countries before the meeting. Tuvalu was unable to provide tables due to issues with SCOPIC. In addition, the connections to both Tuvalu and Vanuatu dropped out during the conference.

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

Summary of the Discussion:

Observed rainfall for the one and three month periods ending January 2013 were discussed for each PIC, together with the seasonal rainfall outlooks for March-May 2013 at one month lead using SCOPIC. Taro in the Solomon Islands received the lowest monthly total for January for the duration of the 36 year period, and has subsequently had a **drought warning** implemented. There have already been reports of water shortages in office and residential rainwater tanks.

The most noteworthy event in January was the above normal rainfall throughout Samoa due to the intensification of the SPCZ, with the occurrence of flash flooding in Apia, and Nafanua registering the second highest monthly rainfall on record.

The POAMA2 experimental outlook for March-May 2013 interpolated to the Pacific Island countries was also presented. There was a general disagreement between SCOPIC and POAMA.

Validation of forecasts with observed rainfall across the region for November 2012-January 2013 showed mostly near-consistent results at the nine countries available at the time of writing. Similar to last month, consistent results slightly outnumbered inconsistent results (13 versus 9 respectively). The largest inconsistency was at Nukuálofa (Tonga) where tercile 3 was observed (582.5mm) against outlook probabilities of 64/17/19 with very high skill (29.1). The strongest consistent verification was at Butaritari (Kiribati), where above normal rainfall was observed (1022.8) with outlook probabilities of 17/23/60 and very high skill (28.3). NMSs mainly chose the combination of SSTa 1 and 9 for July-September 2012 as the predictors for the November 2012-January 2013 outlooks. SSTa 1 and 9 for November 2012 to January 2013 was also mainly chosen as the predictors for the March to May 2013 outlooks. A summary of results (**C-c**onsistent, **NC**-Near-Consistent and **I**-Inconsistent) for each country is as follows:

Cook Islands (1C, 1NC); Fiji (4C, 8NC); Kiribati (1C, 3NC, 1I); Niue (1I); PNG (2C, 6NC); Samoa (4NC); Solomon Islands (3NC, 4I); Tonga (2C, 2NC, 2I); Tuvalu (N/A); and Vanuatu (3C, 3NC, 1I). **Overall: 13C, 30NC, 9I**.

Following on from last month, the meeting was also presented with a new analysis of SCOPIC verification data (LEPS and Hit Rates) for all the OCOF issues dating from January 2011, together with a comparison with POAMA outlooks for the subset of stations available with that system. These tables currently run a month behind the other data, so for example, the latest verification statistics are for the October-December period (OCOF #60).

Grant Beard discussed the current ENSO situation. A neutral pattern has persisted since the middle of 2012 as is predicted to persist for the next few months. The cooling trend over the last few months has eased: with minimal change in the last fortnightly temperature values for NINO3 (–0.4) and NINO4 (+0.1); and no change in NINO3.4 (–0.3). Weak negative anomalies are still mainly confined to a narrow equatorial strip in the central to eastern pacific. The latest Southern Oscillation Index remains within neutral values despite a drop to –8. Most ENSO prediction models indicate a persistence of a neutral ENSO pattern well into March-May 2013. Some of the text of the most recent ENSO Wrap-Up is shown below.

ENSO Update (Issued on 12th February 2013)

Pacific remains ENSO neutral
The tropical Pacific remains El Niño-Southern Oscillation (ENSO) neutral. Climate models and current observations indicate this neutral state is likely to continue well into the southern hemisphere autumn.

Atmospheric indicators of ENSO, such as the Southern Oscillation Index (SOI), trade winds, and tropical cloud patterns have persisted at neutral levels since mid to late 2012. Tropical Pacific Ocean temperatures have remained steady over the last fortnight after several months of gradual cooling. This is consistent with climate model forecasts suggesting the current neutral ENSO state is likely to persist for some months.

For up to date information on the state of ENSO please refer to the links below;

BoM ENSO Wrap Up - http://www.bom.gov.au/climate/enso/
BoM model survey - http://www.bom.gov.au/climate/ahead/ENSO-summary.shtml
IRI model summary - http://iri.columbia.edu/climate/ENSO/currentinfo/SST_table.html

Observed Rainfall and Validation

Country	January 2013	November 2012 to January 2013	Outlooks Issued for November 2012 to January 2013 (skill level)	Verification[†] for November 2012 to January 2013 outlooks
Cook Islands	Above Normal	Normal	Normal to Above Normal (moderate to high skill)	Near Consistent to Consistent
Fiji	Below Normal to Normal Above normal in Rotuma	Below Normal to Normal Above normal in Penang Mill	Below Normal to Normal Climatology for Navua and Rotuma (low to very high skill)	Near Consistent to Consistent
Kiribati	Below Normal to Normal	Normal Below Normal in Tarawa Above Normal in Butaritari	Above Normal (high to exceptional skill)	Near Consistent Consistent in Butaritari Inconsistent in Tarawa
Niue	Normal	Below Normal	Above Normal (moderate skill)	Inconsistent
Papua New Guinea	Above Normal	Normal to Above Normal Below Normal in Madang	Below Normal to Normal Above Normal in Misima (very low to high skill)	Near Consistent to Consistent
Samoa	Above Normal	Above Normal	Below Normal to Normal (low to high skill)	Near Consistent
Solomon Islands	Below Normal to Above Normal	Below Normal to Above Normal	Below Normal to Above Normal (good to very high skill, except very low for Munda)	Inconsistent to Near Consistent
Tonga	Above Normal Normal in Niuafoóu	Normal to Above Normal	Below Normal to Above Normal (low to very high skill)	Inconsistent to Consistent
Tuvalu	N/A	N/A	N/A	N/A
Vanuatu	Below Normal to Normal Above Normal in Sola	Normal to Above Normal Below Normal in Port Vila	Below Normal to Normal Above Normal in Sola (good to very high skill)	Near Consistent to Consistent Inconsistent in Lamap

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

Forecast is <u>near-consistent</u> 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 <u>inconsistent</u> when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).