

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 103

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)	March 2016						
	January 2016 Total	February 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	480.8	288.8	170.2	100.3	289.7	187.8	52/78
RAROTONGA	71.5	53.2	137.5	162.0	243.0	214.0	7/118

**TABLE 2: Three-monthly Rainfall
January to March 2016**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #99]

Station	Three-month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecast probs.* (include LEPS)	Verification* (Consistent, Near-consistent, Inconsistent?)
PENRHYN	939.8	469	820	603	58/78	41.3%	Consistent
RAROTONGA	262.2	601	787	704	1/117	8.9%	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for January to March 2016 Outlooks (refer to OCOF #99):

November 2015 - January 2016 NINO3.4 SST Anomalies

* 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).

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for
May to July 2016**

Predictors and Period used: NINO 3.4 (Nov 2015 – Jan 2016)

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	18.5%	381.0	81.5%		6.6%	65.6%
RAROTONGA	94.4%	424.0	5.6%		21.1%	63.6%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	8.6%	314.0	13.2%	520.9	78.1%	10.9%	40.6%
RAROTONGA	85.9%	373.0	10.0%	487.7	4.1%	17.4%	57.6%

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
May to July 2016**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	15.1%	311	27.3%	555	57.6%		
RAROTONGA	90.9%	318	5.0%	432	4.1%		

Summary Statements

Rainfall for March 2016:

For the month of March 2016 there was normal rainfall in Penrhyn and below normal for the Island capital of Rarotonga.

Accumulated rainfall for January to March 2016, including outlook verification:

Accumulated rainfall for the period of Jan – Mar 2016 was above normal in Penrhyn and below normal for Rarotonga.

SCOPIE outlook verification for the last three months was consistent for both the Penrhyn and Rarotonga stations. Skill levels were exceptional for Penrhyn and just moderate for Rarotonga.

Outlooks for May to July 2016:

1. SCOPIE:

Rainfall for both the Cook Island station seems to be continuing the same trend as previous outlooks. Penrhyn outlook for May – July 2016 is favouring above normal rainfall with normal the next most likely. While Rarotonga favours below normal with normal rainfall the next most likely outcome. Models having high confidence for Rarotonga's outlook, with good confidence in Penrhyn's outlook.

2. POAMA:

Poama favours above normal rainfall for Penrhyn with below normal rainfall the most likely outcome for Rarotonga.

NB: The X LEPS % score has been categorised as follows:

Very Low: $X < 0.0$

Low: $0 \leq X < 5$

Moderate $5 \leq X < 10$

Good: $10 \leq X < 15$

High: $15 \leq X < 25$

Very High: $25 \leq X < 35$

Exceptional: $X \geq 35$