

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 105

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)	May 2016						
	March 2016 Total	April 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	170.2	125.4	278.6	92.3	175.5	125.6	71/78
RAROTONGA	137.5	52.3	57.0	96.7	196.3	143.0	20/118

TABLE 2: Three-monthly Rainfall March to May 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #101]

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	574.2	383.0	633.4	485.0	50/76	10/14/76	Inconsistent
RAROTONGA	246.8	519.5	654.7	582.0	5/118	56/35/9	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for March to May 2016 Outlooks (refer to OCOF #101):

NINO3.4 SST Anomalies DEC 2015 – JAN 2016

* 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 July to September 2016

Predictors and Period used: NINO3.4 SST Anomalies Mar – May 2016

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	9.0%	341.0	91.0%		15.2%	64.6%
RAROTONGA	51.7%	295.0	48.3%		-1.5%	39.4%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	5.2%	293.7	14.6%	460.7	80.2%	15.0%	37.9%
RAROTONGA	47.4%	253.3	19.3%	363.3	33.3%	-1.2%	49.2%

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

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	18.2%	254	36.4%	522	45.4%		
RAROTONGA	81.8%	238	12.1%	368	6.1%		

Summary Statements

Rainfall for May 2016:

Above normal rainfall was recorded for Penrhyn, and Rarotonga had below normal rainfall.

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

Penrhyn had normal rainfall for the period of March to May 2016, and Rarotonga had accumulated well below normal rainfalls for the same period.

SCOPIC outlook for the last three months was consistent for Rarotonga and inconsistent for Penrhyn with moderate to good skill for both stations respectively.

Outlooks for July to September 2016:

1. SCOPIC:

Penrhyn forecast is biased towards Above normal rainfall conditions for July through to end of September, with normal rainfall proving to be the next most likely outcome. Rainfall outlook for Rarotonga is biased towards below normal conditions and above normal is the next most likely. Good confidence for Penrhyn outlook, and very low for Rarotonga.

2. POAMA:

Penrhyn favours above normal rainfall conditions and Rarotonga favours below normal rainfall.

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: $X \geq 35$