

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 104

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)	April 2016						
	February 2016 Total	March 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	288.8	170.2	125.4	103.0	182.0	129.3	38/77
RAROTONGA	53.2	137.5	52.3	137.7	233.7	185.2	10/118

TABLE 2: Three-monthly Rainfall February to April 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #100]

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	584.4	442.7	726.7	579	39/76	2/25/73	Near-consistent
RAROTONGA	243.0	566.3	714.3	656	2/117	68/22/10	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for February to April 2016 Outlooks (refer to OCOF #100):

* 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 June to August 2016

Predictors and Period used:

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	2.8%	370.4	97.2%		31.5%	79.4%
RAROTONGA	67.3%	298	32.7%		-0.2%	55.9%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	1.5%	259.3	38.2%	538	60.4%	18.4%	52.9%
RARAOTONGA	43.4%	254	27.5%	367	29.1%	-2.9%	32.4%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for June to August 2016

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	12.1	288	42.4	568	45.5		
RAROTONGA	93.9	255	5.0	370	1.1		

Summary Statements

Rainfall for April 2016:

Rarotonga rainfall was below normal for April as expected, but Penrhyn had normal rainfall for the month of April.

Accumulated rainfall for February to April 2016, including outlook verification:

For the period of February to April 2016, Rarotonga station had below normal, while Penrhyn for the same period had normal amounts of rainfall, instead of above normal that was forecasted.

SCOPIC outlook verification for the last three months was consistent for Rarotonga and Near-consistent for Penrhyn. Skill levels was very low to low for both of the Cook Islands stations.

Outlooks for June to August 2016:

1. SCOPIC:

Penrhyn seasonal rainfall outlook for June-August 2016 period favours above-normal rainfall, with normal rainfall the next most likely outcome. At Rarotonga, the outlook favours below-normal rainfall, with normal the next most likely outcome. Confidence in the outlooks during this period is very high for Penrhyn and very low for Rarotonga.

2. POAMA:

The most likely rainfall outcome for Penrhyn is above normal and below normal for Rarotonga for the upcoming period.

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: $X \geq 35$