

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 95

Country Name: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	July 2015						
	May 2015 Total	June 2015 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Penrhyn (1937-Jul 2015)	53.1	36	32.5	80.3	152	115.5	11/79
Rarotonga (1899-Jul 2015)	140.5	87.2	10.6	58	122	88	1/117

**TABLE 2: Three-monthly Rainfall
May to July 2015**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #91]

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	121.6	284.8	478.1	349.8	3/76	16/36/ 48 (18.4%)	Inconsistent
Rarotonga	238.3	294	409.3	345	21/117	39 /34/27 (1.7%)	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for May to July 2015 Outlooks (refer to OCOF #91):

Feb to Mar 2015 NINO3.4 SST Anomalies extended (1mths lead)

* 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 September to November 2015

Predictors and Period used: Jun to Jul NINO3.4 SST Anomalies extended (1mths lead)

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Penrhyn	2%	389.8	98%		37.2%	74.6%
Rarotonga	67%	358	33%		1.2%	53.8%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Penrhyn	1%	320.7	10%	477.3	89%	29.3%	52.4%
Rarotonga	63%	299.7	23%	434.3	14%	4.8%	44.6%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for September to November 2015

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Penrhyn	55%	325	12%	643	33%		
Rarotonga	33%	297	62%	404	5%		

Summary Statements

Rainfall for July 2015:

In July, Penrhyn and Rarotonga recorded below normal rainfall.

Accumulated rainfall for May to July 2015, including outlook verification:

Penrhyn and Rarotonga rainfall for the period May-Jul was below normal. Outlook verification was inconsistent forecast for Penrhyn (high skill), consistent forecast for Rarotonga (low skill).

Outlooks for September to November 2015:

1. SCOPIC: Penrhyn seasonal rainfall outlook for Sep-Nov 2015 shows that most likely outcome is above normal. Rarotonga outlook shows that the most likely outcome is below normal. Confidence in the outlooks during this period is very high for Penrhyn, low for Rarotonga.

2. POAMA: the most likely rainfall outcome for Penrhyn is below normal and Rarotonga is normal.

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: $X \geq 35$