

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 129

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)	May 2018						
	March 2018 Total	April 2018 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	66.0	39.2	50.8	94.4	178.0	127.0	12/80
RAROTONGA	291.0	329.1	139.6	96.3	193.0	140.5	60/120

**TABLE 2: Three-monthly Rainfall
March to May 2018**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #125]

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	156.0	386.3	654.2	488.6	1/78	41/36/23 (5.6)	Consistent
RAROTONGA	759.7	515.4	653.7	581.0	105/120	24/34/42 (5.3)	Consistent

Period: *below normal/normal/above normal

Predictors and Period used for March to May 2018 Outlooks (refer to OCOF #125):

NINO3.4 SST Anomalies for December 2017 – January 2018

* 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 2018**

Predictors and Period used: NINO3.4 SST Anomalies for April – May 2018

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	54	341.0	46		8.6	61.2
RAROTONGA	50	295.0	50		-1.2	52.9

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	67%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	36	293.0	36	470.2	28	9.5	46.3
RAROTONGA	32	251.7	35	363.7	33	-1.4	35.3

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
July to September 2018**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	67%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	73	254	18	522	9		
RAROTONGA	36	238	22	368	42		

Summary Statements

Rainfall for May 2018:

Penrhyn had below normal amounts of rainfall during May of 2018, and Rarotonga had normal amounts during that same period.

Accumulated rainfall for March to May 2018, including outlook verification:

Accumulated rainfall for March to May 2018 was below normal for Penrhyn, with this being the driest March to May period on record. During the same period, Rarotonga had accumulated above normal amounts of rainfall.

SCOPIC outlook verification for said period was consistent at both Penrhyn and Rarotonga stations, with moderate confidence respectively.

Outlooks for July to September 2018:

1. SCOPIC:

Outlook for July to September 2018 for both Penrhyn and Rarotonga stations offers little guidance as the chances for above normal, normal and below normal are all similar.

Confidence in the outlook is moderate for Penrhyn and very low for Rarotonga.

2. POAMA:

Poama favours below normal amounts of rainfall for Penrhyn, and it shows above normal is the most likely outcome for Rarotonga with below normal being the next most likely to occur.

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: $X \geq 35$