

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 136

Country: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)	Oct-2018	Nov-2018	Dec-2018				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2018)	76.2	68.2	90.2	109.0	244.6	177.0	21/81
Rarotonga (1899-2018)	86.6	5.7	246.4	143.0	255.7	193.0	75/120

**TABLE 2: Three-month Rainfall for October to December 2018**

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIIC forecast probabilities* based on NINO3.4 July-August 2018				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2018)	234.6	Below normal	377.0	624.0	495.1	14/80	15	41	44	27	Inconsistent
Rarotonga (1899-2017)	338.7	Below normal	406.3	543.3	459.5	33/120	42	34	24	18	Consistent

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for February to April 2019**

Predictor and Period used: NINO3.4 for October to November 2018

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2018)	15	612.0	85		31	72
Rarotonga (1899-2017)	62	699.5	38		3	54

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2018)	5	468.8	33	820.2	62	31	54
Rarotonga (1899-2017)	47	596.0	26	787.0	27	3	31

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for February to April 2019**

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Penrhyn	46	615.0	27	1146.0	27
Rarotonga	52	546.0	18	695.0	30

## Summary Statements

### Rainfall for December 2018:

Below normal for Penrhyn and normal amounts of rainfall for Rarotonga in December 2018.

### Accumulated rainfall for October to December 2018, including outlook verification:

Three months accumulated for October to December 2018 was below normal at both Penrhyn and Rarotonga stations. Verification for Penrhyn was inconsistent with very high skill and Rarotonga was consistent with high skill in its forecast.

### Outlooks for February to April 2019:

#### 1. SCOPIC:

Rainfall Outlook for Penrhyn favours above normal as the most likely with normal being the next most likely outcome, while Rarotonga's outlook shows below normal rainfall as the most likely outcome. Normal and above normal both least likely to occur with having equal chances.

Penrhyn has very high skill in its forecast, and Rarotonga has low confidence in its skill.

#### 2. POAMA:

POAMA favours below normal rainfall for both Penrhyn and Rarotonga stations. Normal and above normal least likely for Penrhyn with both having equal chances, above normal is the next most likely for Rarotonga.

**Table: 5 Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders**

Country	Date: December 2018	Stakeholder	Total Number of Participants	Number of male	Number of female
Cook Islands		MoT (Ministry of Transport)	18	14	4
		ICI – Water works	?	?	?

**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:  $X \geq 35$