Pacific Islands - Online Climate Outlook Forum (OCOF) No. 138

Country: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)	Dec-2018	Jan-2019	Feb-2019				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2019)	90.2	220.8	234.8	102.3	291.6	202.7	44/81
Rarotonga (1899-2019)	246.4	231.5	151.6	162.0	246.0	214.0	34/121

TABLE 2: Three-month Rainfall for December 2018 to February 2019

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities* based on NINO3.4 September-October 2018				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2019)	545.8	Normal	438.0	841.7	633.0	35/81	3	33	64	41	Near-consistent
Rarotonga (1899-2019)	629.5	Normal	557.7	763.0	673.0	51/120	49	33	18	11	Near-consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for April to June 2019
Predictor and Period used: NINO3.4 for January to February 2019

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2019)	32	402.0	68		14	69
Rarotonga (1899-2019)	62	424.0	38		7	58

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 (1937-2019)	17	322.0	33	536.0	50	16	52
Rarotonga (1899-2019)	41	382.1	35	483.7	24	5	41

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

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Penrhyn	61	370.0	21	576.0	18
Rarotonga	52	403.0	36	475.0	12

Summary Statements

Rainfall for February 2019:

Rainfall for February 2019 was normal for Penrhyn and below normal for Rarotonga station.

Accumulated rainfall for December 2018 to February 2019, including outlook verification:

Accumulated rainfall for December 2018 to February 2019 was normal at both Penrhyn and Rarotonga stations, and outlook verification was near-consistent at both stations again with exceptional to good skill respectively in its forecast.

Outlooks for April to June 2019:

1. **SCOPIC:**
Rainfall Outlook for Penrhyn favour above normal as the most likely with normal being the next most likely outcome, while Rarotonga shows below normal rainfall as the most likely outcome, with normal the next most likely and above normal is the least most likely.

Penrhyn has high confidence in its forecast, and Rarotonga shows a low confidence.

2. **POAMA:**
POAMA favours below normal rainfall for both Penrhyn and Rarotonga stations. Normal is next most likely and above normal is the least likely outcome.

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

Country	Date: March 2019	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 ≤ X < 5   Moderate: 5 ≤ X < 10   Good: 10 ≤ X < 15   High: 15≤ X < 25   Very High: 25 ≤X < 35   Exceptional: X ≥ 35