

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 149

Country: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	Nov-2019	Dec-2019	Jan-2020				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2019)	42.4	14.4	199.8	121.7	302.1	195.9	44/82
Rarotonga (1899-2019)	289.6	141.7	241.3	162.0	270.0	217.0	71/122

TABLE 2: Three-month Rainfall for November 2019 to January 2020

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 August-September 2019				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2019)	256.6	Below normal	411.7	766.1	599.0	16/82	26	39	35	23	Near- consistent
Rarotonga (1899-2019)	672.6	Normal	498.0	687.4	567.0	75/121	36	36	28	12	Near- consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for March to May 2020

Predictor and Period used: NINO3.4 for December 2019 to January 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2019)	41	495.0	59		6	60
Rarotonga (1899-2019)	62	564.5	38		12	64

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)	27	386.0	32	675.7	41	6	38
Rarotonga (1899-2019)	41	497.7	33	620.0	26	7	39

TABLE 4: Seasonal Climate Outlooks using POAMA2 for March to May 2020

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Penrhyn	91	500.0	5	850.0	4
Rarotonga	39	453.0	22	581.0	39

Summary Statements

Rainfall for January 2020:

Rainfall for the month of January 2020 had normal amounts at both Penrhyn and Rarotonga stations.

Accumulated rainfall for November 2019 to January 2020, including outlook verification:

Accumulated rainfall for the period November 2019 to January 2020 was below normal for Penrhyn and normal at Rarotonga.

Outlook verification was near-consistent for both Penrhyn and Rarotonga stations, with good to high skill respectively in its forecast.

Outlooks for March to May 2020:

1. SCOPIC:

The Rainfall Outlook for Penrhyn shows above normal as the most likely, with normal the next most likely; below normal is the least likely. Rarotonga's outlook shows below normal as the most likely, with normal the next most likely; above normal is the least likely.

Forecast confidence is just moderate at both Penrhyn and Rarotonga stations.

2. POAMA:

The POAMA outlook for Penrhyn heavily favours below normal rainfall as the most likely outcome, while Rarotonga's outlook is mixed, with similar chances for below-normal and above-normal totals; near-normal is the least likely outcome.

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: $X \geq 35$

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

Product	Date: January 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		MoT	22	16	6
EAR Watch		MoT CI RedCross	22	16	6
Monthly Climate Briefing					
Ocean Bulletin					
Total			44	32	12