

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 150

Country: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	Dec-2019	Jan-2020	Feb-2020				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2020)	14.4	199.8	301.8	120.0	293.0	225.0	58/82
Rarotonga (1899-2020)	141.7	241.3	279.7	152.0	239.0	197.0	88/122

TABLE 2: Three-month Rainfall for December 2019 to February 2020

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 September-October 2019				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2020)	516.0	Below normal	529.3	879.6	657.0	30/82	13	43	44	30	Inconsistent
Rarotonga (1899-2020)	662.7	Normal	551.7	747.3	652.0	60/121	39	36	25	10	Near-consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for April to June 2020

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

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2020)	35	401.4	65		19	71
Rarotonga (1899-2020)	59	426.5	41		6	57

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 (1937-2020)	25	320.4	32	532.7	43	12	49
Rarotonga (1899-2020)	40	382.7	33	483.0	27	5	43

TABLE 4: Seasonal Climate Outlooks using POAMA2 for April to June 2020

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Penrhyn	88	370.0	5	576.0	7
Rarotonga	73	403.0	21	475.0	6

Summary Statements

Rainfall for February 2020:

Rainfall for the month of February 2020 was above normal at both Penrhyn and Rarotonga stations.

Accumulated rainfall for December 2019 to February 2020, including outlook verification:

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

Outlook verification was inconsistent for Penrhyn and near-consistent for Rarotonga stations, with very high to good skill respectively in the forecasts issued in November.

Outlooks for April to June 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 good for Penrhyn and just moderate at Rarotonga station.

2. POAMA:

The POAMA outlook heavily favours below normal rainfall for both Penrhyn and Rarotonga stations.

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: February 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		Ministry of Transport	22	16	6
EAR Watch		Ministry of Transport Cook Islands Red Cross	22	16	6
Monthly Climate Briefing					
Ocean Bulletin					
Total			44	32	12