

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 146

Country: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	Aug-2019	Sep-2019	Oct-2019				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2019)	86.6	116.8	77.6	93.4	178.7	125.8	19/81
Rarotonga (1899-2019)	139.1	55.8	120.2	61.7	124.3	81.3	74/121

TABLE 2: Three-month Rainfall for August to October 2019

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 May -June 2019				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2019)	281.0	Below normal	293.0	432.1	341.0	23/80	22	25	53	7	Inconsistent
Rarotonga (1899-2019)	315.1	Normal	250.3	374.3	311.0	56/121	51	20	29	3	Near- consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for December 2019 to February 2020

Predictor and Period used: NINO3.4 for September to October 2019

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2019)	34	657.0	66		28	68
Rarotonga (1899-2019)	62	652.0	38		19	67

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)	13	529.3	43	879.6	44	30	55
Rarotonga (1899-2019)	39	551.7	36	747.3	25	10	41

TABLE 4: Seasonal Climate Outlooks using POAMA2 for December 2019 to February 2020

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Penrhyn	39	608.0	46	1027.0	15
Rarotonga	39	543.0	22	719.0	39

Summary Statements

Rainfall for October 2019:

Rainfall for the month of October 2019 was below normal at Penrhyn and normal at Rarotonga.

Accumulated rainfall for August to October 2019, including outlook verification:

Accumulated rainfall for the period July to October 2019 was below normal for Penrhyn and normal at Rarotonga.

Outlook verification was inconsistent for Penrhyn, with moderate skill in its forecast, while Rarotonga's verification was near-consistent, even though its skill was low.

Outlooks for December 2019 to February 2020:

1. SCOPIC:

The Rainfall Outlook for Penrhyn shows a near-equal likelihood of above-normal and normal rainfall, below-normal is the least likely. Rarotonga's outlook shows a near-equal likelihood of below-normal and normal rainfall, above-normal is the least likely.

Forecast confidence is very high at Penrhyn and moderate at Rarotonga.

2. POAMA:

The POAMA outlook for Penrhyn favours normal rainfall, while Rarotonga's outlook is mixed as it shows a near-equal likelihood of above normal and below normal rainfall. Normal is the least likely.

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: October 2019	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing					
Ocean Bulletin					