Pacific Islands - Online Climate Outlook Forum (OCOF) No. 145

Country: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	Jul-2019	Aug-2019	Sep-2019				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2019)	116.2	86.6	116.8	73.6	138.0	111.2	45/81
Rarotonga (1899-2019)	48.5	139.1	55.8	70.4	119.7	93.0	28/121

TABLE 2: Three-month Rainfall for July to September 2019

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 April -May 2019				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2019)	319.6	Normal	293.7	439.9	342.0	35/81	17	22	61	7	Near-consistent
Rarotonga (1899-2019)	243.4	Below normal	250.0	349.0	294.0	39/121	37	29	34	3	Consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for November 2019 to January 2020
Predictor and Period used: NINO3.4 for August to September 2019

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2019)	45	599.0	55		19	68
Rarotonga (1899-2019)	54	567.0	46		8	61

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)	26	411.7	39	766.1	35	23	55
Rarotonga (1899-2019)	36	498.0	36	687.4	28	12	44

TABLE 4: Seasonal Climate Outlooks using POAMA2 for November 2019 to January 2020

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Penrhyn	42	530.0	**45**	892.0	13
Rarotonga	18	451.0	12	661.0	**70**

Summary Statements

Rainfall for September 2019:

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

Accumulated rainfall for July to September 2019, including outlook verification:

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

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

Outlooks for November 2019 to January 2020:

1. SCOPIC:
The Rainfall Outlook for Penrhyn shows normal as the most likely, with above normal the next most likely; below normal is the least likely. Rarotonga's outlook offers little guidance as the chances of above normal, normal and below normal are all similar.

Forecast confidence is high at Penrhyn and good at Rarotonga.

2. POAMA:
The POAMA outlook for Penrhyn shows a near-equal chance of normal or below normal rainfall, while Rarotonga's outlook favours above normal rainfall.

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

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

Product	Date: September 2019	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	10.09.2019	MoT	20	14	6
EAR Watch					
Monthly Climate Briefing					
Ocean Bulletin					
Total			20	14	6