

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 154

Country: Cook Islands

TABLE 1: Monthly Rainfall

Station (include data period)	Apr-2020	May-2020	Jun-2020				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Penrhyn (1937-2020)	40.8	56.6	125.6	99.7	169.9	130.4	41/82
Rarotonga (1899-2020)	227.9	148.0	17.4	63.0	114.0	88.6	2/122

TABLE 2: Three-month Rainfall for April to June 2020

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 January-February 2020				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Penrhyn (1937-2020)	223.0	Below normal	320.4	532.7	401.4	9/80	25	32	43	12	Inconsistent
Rarotonga (1899-2020)	393.3	Normal	382.7	483.0	426.5	47/122	40	33	27	5	Near-consistent

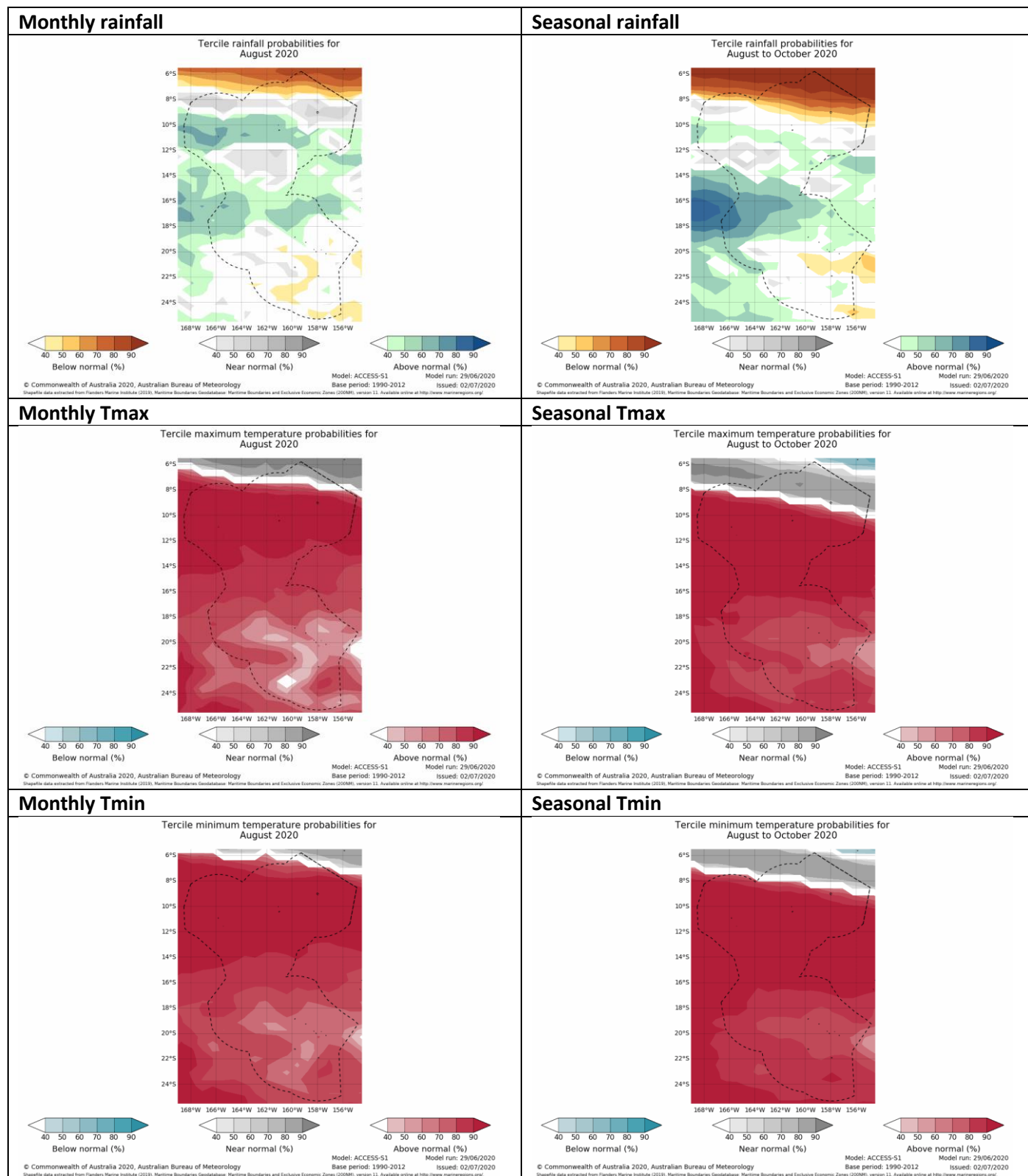
TABLE 3: Seasonal Climate Outlooks using SCOPIC for August to October 2020**Predictor and Period used: NINO3.4 for May to June 2020**

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Penrhyn (1937-2020)	53	338.0	47		10	63
Rarotonga (1899-2020)	49	313.0	51		2	56

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)	36	292.3	35	427.4	29	6	27
Rarotonga (1899-2020)	30	250.5	35	374.0	35	3	40

Monthly and Seasonal Climate Outlooks using ACCESS-S for August to October 2020

The maps are provided in the PowerPoint document labelled ACCESS-S outlooks_2020-06



Summary Statements

Rainfall for June 2020:

Rainfall for the month of June 2020 was normal for Penrhyn and below normal for Rarotonga - this was the second driest June in history for Rarotonga, the driest being in 1949 when only 13mm was recorded.

Accumulated rainfall for April to June 2020, including outlook verification:

Accumulated rainfall for the period of April to June 2020 was below normal for Penrhyn and normal for Rarotonga.

Verification of the outlook issued in March was inconsistent for Penrhyn and near-consistent for Rarotonga.

Outlooks for August to October 2020:

1. SCOPIC:

The rainfall outlook offers little guidance as the chances of above-normal, normal and below-normal are similar at both stations of the Cook Islands.

Forecast confidence is moderate for Penrhyn and low for Rarotonga.

2. ACCESS-S:

Seasonal rainfall:

Both stations outlook shows below normal rainfall is the most likely, with Penrhyn showing a 50-70% chance and Rarotonga showing a 40-50% chance.

Seasonal maximum and minimum temperatures:

A near normal season is favoured for Penrhyn, with a 40-50% chance, and a warmer than average season is favoured at Rarotonga, during both the day and overnight.

Monthly rainfall:

The one-month outlook for Penrhyn shows a 50-60% chance of being near normal, while Rarotonga's outlook offers little guidance as the chances for wetter, near normal and drier than normal are similar.

Monthly maximum and minimum temperatures:

Warmer than average days and nights during August are favoured at both Penrhyn ($\geq 90\%$ chance) and Rarotonga (60-70% chance).

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: June 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin		Ministry of Transport	24	16	8
EAR Watch		Ministry of Transport	24	16	8
Monthly Climate Briefing					
Ocean Bulletin					
Total			24	16	8