Pacific Islands - Online Climate Outlook Forum (OCOF) No. 124

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)			December 2017				
	October 2017 Total	November 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	124.8	36.4	**190.6**	109.0	244.8	172.0	42/80
RAROTONGA	106.2	130.2	**292.3**	141.0	253.0	191.5	92/119

TABLE 2: Three-monthly Rainfall
October to December 2017

[Please note that the data used in this verification should be sourced from table 3 of OCOF #120]

Station	Three-month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecast probs.* (include LEPS)	Verification* (Consistent, Near-consistent Inconsistent)?
PENRHYN	**351.8**	379.0	627.0	489.5	24/79	16/41/**43** 26.7%	Inconsistent
RAROTONGA	**528.7**	405.0	544.0	481.5	74/119	**40**/34/26 18.4%	Near consistent

Period:*below normal/normal/above normal

Predictors and Period used for October to December 2017 Outlooks (refer to OCOF #120):

NINO3.4 SST Anomalies July – August 2017

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[*]Forecast is consistent when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is near-consistent when observed and predicted (tercile with the highest probability) differ by only one category (i.e. terciles 1 and 2 or terciles 2 and 3).

Forecast is inconsistent when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

TABLE 3: Seasonal Climate Outlooks using SCOPIC for February to April 2018

Predictors and Period used: NINO3.4 SST Anomalies November – December 2017

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	64	584	36		17.5%	68.2%
RAROTONGA	41	661	59		6.0%	61.2%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	67%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	47	444	29	727	24	12.9%	39.4%
RAROTONGA	23	572	37	725	40	6.4%	41.8%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for February to April 2018

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	67%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	61	615	27	1146	12		
RAROTONGA	40	546	30	695	30		

Summary Statements

Rainfall for December 2017:
For the month of December, Penrhyn had normal amounts of rainfall and Rarotonga had above-normal.

Accumulated rainfall for October to December 2017, including outlook verification:
Accumulated rainfall for the 3 month period of October to December 2017 was below normal for Penrhyn station, and normal for Rarotonga.

SCOPIC outlook verification for said period was inconsistent at Penrhyn and near-consistent at Rarotonga station, with very high to high confidence respectively.

Outlooks for February to April 2018:
1. SCOPIC:
Outlook for the upcoming months of February to April 2018, indicates below normal rainfall as the most likely outcome for Penrhyn with normal being the next most likely to occur. Rarotonga shows an equal likelihood of above normal and normal rainfall. Below normal is the least likely outcome to occur.

Confidence in the outlook is good for Penrhyn and moderate for Rarotonga.

2. POAMA:
Outlook from POAMA favours below normal rainfall as the most likely outcome for both Penrhyn and Rarotonga stations.

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