Pacific Islands - Online Climate Outlook Forum (OCOF) No. 116

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)			April 2017				
	February 2017 Total	March 2017 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	300.8	250.6	**289.0**	103.9	179.3	128.6	66/78
RAROTONGA	286.3	101.2	**244.4**	135.0	232.0	184.1	83/119

TABLE 2: Three-monthly Rainfall
February to April 2017

[Please note that the data used in this verification should be sourced from table 3 of OCOF #112]

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	**840.4**	443.0	726.0	581.7	58/78	**44**/32/24 14.3%	Inconsistent
RAROTONGA	**631.9**	572.0	726.0	663.0	52/119	25/36/**39** 6.2%	Near Consistent

Period:*below normal/normal/above normal

Predictors and Period used for February 2017 to April 2017 Outlooks (refer to OCOF #112):
NINO3.4 SST Anomalies October - December 2016

*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 June to August 2017

Predictors and Period used: NINO3.4 SST Anomalies Feb – Apr 2017

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	38	383.8	62		24.3%	74.2%
RAROTONGA	51	298.5	49		-1.3%	49.3%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	22	261.5	39	540.7	39	18.8%	53.0%
RAROTONGA	33	254.0	34	365.0	33	-1.7%	13.4%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for June to August 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	24	288	55	568	21		
RAROTONGA	36	255	36	370	28		

Summary Statements

Rainfall for April 2017:
Rainfall for the month of April 2017 was above normal for both Penrhyn and Rarotonga stations.

Accumulated rainfall for February to April 2017, including outlook verification:
Accumulated rainfall for the period of February through to the end of April 2017 was above normal for Penrhyn station, while Rarotonga station recorded normal rainfall.

Outlook verification for the past three months was inconsistent for Penrhyn station and near-consistent for Rarotonga station. Penrhyn had a fairly good confidence in the forecast, whilst Rarotonga was moderate.

Outlooks for June to August 2017:

1. SCOPIC:
Rainfall forecast for the upcoming months of June to August 2017 at Penrhyn shows a near-equal chance of above normal or normal rainfall; below-normal is the least likely outcome. Meanwhile for Rarotonga there is little indication of bias towards either "*above-normal*", "*normal*" or "*below-normal*" as they're all roughly equal. This situation is usually indicative of low predictability/forecast-skill for this period of the year, and we refer to the forecast as being the same as "climatology".

Penrhyn has a high confidence in the outlook from the models and Rarotonga has very low confidence in the outlook.

2. POAMA:
Outlook from POAMA favours rainfall in the normal range at Penrhyn station, with below normal the next most likely. At Rarotonga the outlook offers little guidance for the coming season as the chances of above-normal, normal and below-normal rainfall are similar.

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			