Pacific Islands - Online Climate Outlook Forum (OCOF) No. 110

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)			October 2016				
	August 2016 Total	September 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	124.6	69.2	**96.2**	98.4	183	142	26/78
RAROTONGA	144.8	227.2	**66.1**	63.3	137.7	91	41/118

TABLE 2: Three-monthly Rainfall
August to October 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #106]

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	**290**	293	440	357.2	25/77	13/20/**67** 11.7%	Inconsistent
RAROTONGA	**438.1**	270.7	388.7	337	93/118	**52**/17/31 1.5%	Inconsistent

Period:*below normal/normal/above normal

Predictors and Period used for August to October 2016 Outlooks (refer to OCOF #106):

NINO3.4 SST Anomalies April – June 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 December 2016 to February 2017

Predictors and Period used: NINO3.4 SST Anomalies August – October 2016

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	71	647.5	29		30.7%	71.2%
RAROTONGA	38	673	62		13.7%	68.2%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	49	425.3	37	855.7	14	40.7%	62.1%
RAROTONGA	24	556.7	34	760	42	9.3%	37.9%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for December 2016 to February 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	76	608	19	1027	5		
RAROTONGA	27	543	15	719	58		

Summary Statements

Rainfall for October 2016:
For the month of October Penrhyn had below normal rainfall conditions, and Rarotonga had normal rainfall conditions.

Accumulated rainfall for August to October 2016, including outlook verification:
Accumulated rainfall for the period of August through to the end of October of 2016, was below normal for Penrhyn station. While Rarotonga station during the same period recorded above normal rainfall.

SCOPIC outlook verification for the past three months was inconsistent for both Penrhyn and Rarotonga stations. Skill or confidence in the forecast was good for Penrhyn but low for Rarotonga.

Outlooks for December 2016 to February 2017:

1. SCOPIC:

Rainfall forecast for the upcoming months of December 2016 to February 2017 is biased towards below normal rainfall conditions with normal the next most likely for Penrhyn station. Meanwhile Rarotonga is forecasted to have above normal rainfall for the upcoming months with normal rainfall also the next most likely for Rarotonga. There is exceptional confidence in the models for Penrhyns outlook and moderate confidence for Rarotonga.

2. POAMA:

POAMA favours below normal rainfall conditions for Penrhyn and above normal rainfall is forecasted for Rarotonga.

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			