Pacific Islands - Online Climate Outlook Forum (OCOF) No. 109

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)			September 2016				
	July 2016 Total	August 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	276.4	124.6	**69.2**	79.5	152.5	117.5	24/78
RAROTONGA	136.2	144.8	**227.2**	70.7	124.0	93.0	112/118

TABLE 2: Three-monthly Rainfall
July to September 2016

[Please note that the data used in this verification should be sourced from table 3 of OCOF #105]

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	**470.2**	293.7	460.7	341.0	52/78	5/15/**80** 15.0%	Consistent
RAROTONGA	**508.2**	253.3	363.3	295.0	104/118	**47**/20/33 -1.2%	Inconsistent

Period:*below normal/normal/above normal

Predictors and Period used for July to September 2016 Outlooks (refer to OCOF #105):

NINO3.4 SST Anomalies Mar – May 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 November 2016 to January 2017

Predictors and Period used: NINO3.4 SST Anomalies July – September 2016

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	55	492.0	45		22.4%	64.6%
RAROTONGA	47	476.0	53		10.9%	66.7%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	32	384.7	43	630.0	25	31.9%	58.5%
RAROTONGA	25	404.0	38	544.3	37	16.8%	51.5%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for November 2016 to January 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN							
RAROTONGA							

Summary Statements

Rainfall for September 2016:
Below normal rainfall was recorded in Penrhyn, whilst Rarotonga had above normal rainfall during the month of September 2016.

Accumulated rainfall for July to September 2016, including outlook verification:
Accumulated rainfall for the period of July through to the end of September of 2016, both of the Cook Islands stations had above normal rainfall conditions.

SCOPIC outlook verification for the past three months was near-consistent for Penrhyn and consistent for Rarotonga. Skill or confidence in the forecast was high for Penrhyn but very low for Rarotonga.

Outlooks for November 2016 to January 2017:
1. SCOPIC:
The rainfall outlook for the upcoming months of November 2016 to January 2017 is biased towards Normal rainfall for Penrhyn and Normal to Above Normal for Rarotonga. Penrhyn's next most likely outcome is below normal rainfall. There is a very high confidence in the models for Penrhyns outlook and high confidence for Rarotonga.

2. POAMA:

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: $X \geq 35$			