Pacific Islands - Online Climate Outlook Forum (OCOF) No. 113

Country Name: COOK ISLANDS

TABLE 1: Monthly Rainfall

Station (include data period)			January 2017				
	November 2016 Total	December 2016 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
PENRHYN	60.2	150.6	**139.6**	115.0	306.5	175.0	32/79
RAROTONGA	191.4	250.9	**104.3**	177.0	287.0	215.0	19/119

TABLE 2: Three-monthly Rainfall
November 2016 to January 2017

[Please note that the data used in this verification should be sourced from table 3 of OCOF #109]

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	**350.4**	384.7	630.0	492.0	22/79	32/**43**/25 31.9%	Near-consistent
RAROTONGA	**546.6**	404.0	544.3	476.0	48/118	25/**38**/37 16.8%	Near-Consistent

Period:*below normal/normal/above normal

Predictors and Period used for October to December 2016 Outlooks (refer to OCOF #109):

NINO3.4 SST Anomalies July – September 2016

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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 March to May 2017

Predictors and Period used: NINO3.4 SST Anomalies Nov 2016 – Jan 2017

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
PENRHYN	60	486.8	40		10%	64.6%
RAROTONGA	40	581.5	60		10.7%	62.1%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
PENRHYN	39	385.0	37	612.6	24	7.3%	38.5%
RAROTONGA	26	518.3	34	654.6	40	5.5%	36.4%

TABLE 4: Seasonal Climate Outlooks using POAMA2 for March to May 2017

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
PENRHYN	12	500	18	850	70		
RAROTONGA	67	453	18	581	15		

Summary Statements

Rainfall for January 2017:
During the month of January, rainfall was normal for Penrhyn and below-normal for Rarotonga.

Accumulated rainfall for November 2016 to January 2017, including outlook verification:
Accumulated rainfall for the period of November 2016 through to the end of January of 2016, was below-normal for Penrhyn station and above-normal at Rarotonga station.

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

Outlooks for March to May 2017:
1. SCOPIC:
Rainfall forecast for the upcoming months of March to May 2017 at Penrhyn shows the chances of below-normal and normal are roughly equal, with above-normal rainfall being the least likely. Meanwhile at Rarotonga above-normal is the most likely outcome for the upcoming months with normal rainfall being the next most likely.

There is generally a moderate confidence in the outlook from the models for both Penrhyn and Rarotonga's outlook.

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			