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

Country Name: Tuvalu

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	
Nanumea	340.9	184.4	66.9	95.6	177.1	140.8	19/75	
Nui	401.3	188.9	31.8	128.8	213.4	182.3	4/71	
Funafuti	389.6	224.0	161.4	163.1	251.5	203.7	26/84	
Niulakita	79.8	63.0	167.7	169.4	227.2	192.0	22/64	

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?
Nanumea	592.2	402.7	629.7	513.9	42/75	4/16/80	Near Consistent
Nui	622.6	509.1	688.7	599.4	42/71	3/33/64	Near Consistent
Funafuti	775.0	591.3	804.0	693.9	53/84	4/23/73	Near Consistent
Niulakita	310.5	514.2	716.2	607.0	6/64	17/42/41	Near Consistent

<u>Period</u>:*below normal/normal/above normal

Forecast is <u>consistent</u> when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is <u>near-consistent</u> 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 <u>inconsistent</u> when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

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

TABLE 3: Seasonal Climate Outlooks using SCOPIC for November 2016 to January 2017

Predictors and Period used: NINO3.4

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)	LEPS	Hit-rate
Nanumea	70%	904	30%	31%	76%
Nui	55%	987	45%	2%	59%
Funafuti	49%	1048	51%	-1.2%	58%
Niulakita	43%	992	57%	6%	6%

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Nanumea	45%	631	40%	1001	15%	27%	55%
Nui	39%	848	29%	1114	32%	2%	39%
Funafuti	38%	931	25%	1153	37%	-0.1%	42%
Niulakita	22%	812	36%	1122	42%	12%	48%

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)	

Rainfall for September 2016:

Rainfall in September 2016 was below normal rainfall for all meteorological stations

Accumulated rainfall for July to September 2016, including outlook verification:

Rainfall over the last three months was **normal** rainfall for Nanumea, Nui and Funafuti, while Niulakita received **below normal** rainfall

The SCOPIC outlooks for the last three months were near consistent at the 6 meteorological stations.

Outlooks for November 2016 to January 2017:

1. SCOPIC:

At Nanumea, below normal rainfall is the most likely outcome with normal rainfall the next most likely.

The outlook for Nui offers little guidance for the coming season as the chances of **above-normal**, **normal** and **below-normal** rainfall are similar.

The Funafuti outlook is mixed, with similar chances for below-normal and above-normal totals; near-normal is the least likely outcome.

For Niulakita above normal rainfall is the most likely outcome with normal rainfall the next most likely.

Outlook confidence: Nanumea with very high confidence, low confidence for Nui, Funafuti with very low confidence while Niulakita with good confidence

2. POAMA:

NB: The X LEPS % score has been categorised as follows:

 $Very \ Low: \ X < 0.0 \\ Low: \ 0 \le X < 5 \\ Moderate \ 5 \le X < 10 \\ Good: \ 10 \le X < 15 \\ High: \ 15 \le X < 25 \\ High: \ 15 \le X < 25$

Very High: $25 \le X < 35$ Exceptional: $X \ge 35$