

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 127

Country Name: Tuvalu

TABLE 1: Monthly Rainfall

Station (include data period)	March 2018						
	January 2018 Total	February 2018 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Nanumea	251.6	645.1	246.4	179.7	309.9	251.5	38/78
Nui	76.7	370.9	179.4	234.8	340.1	267.1	15/73
Funafuti	189.2	644.3	93.0	273.0	368.2	317.8	2/86
Niulakita	308.7	245.7	246.7	265.1	392.3	316.3	19/66

**TABLE 2: Three-monthly Rainfall
January to March 2018**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #123]

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	1143.1	715.8	1074.1	935.9	57/78	46/43/11 [34.8%]	Inconsistent
Nui	627	847.6	1093.5	983.2	16/73	38/35/27 [4.6%]	Consistent
Funafuti	926.5	976.0	1179.4	1070.3	27/86	38/33/29 [4.8%]	Consistent
Niulakita	801.1	948.2	1148.9	1067.0	12/65	33/30/37 [0.8%]	Inconsistent

Period: *below normal/normal/above normal

Predictors and Period used for January to March 2018 Outlooks (refer to OCOF #123):

NINO 3.4 SST anomalies for October – November 2017

* 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
May to July 2018**

Predictors and Period used: NINO 3.4 SST Anomalies for February to March 2018

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Nanumea	74	608.2	26		21	69
Nui	71	577.2	29		19	71
Funafuti	82	701.0	18		32	74
Niulakita	61	617.2	39		4	62

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	67%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Nanumea	55	490.6	30	711.0	15	20	56
Nui	55	514.5	37	685.8	8	31	57
Funafuti	56	612.2	34	785.7	10	30	66
Niulakita	40	540.7	34	740.3	26	2	42

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
May to July 2018**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	67%ile rainfall (mm)	Upper Tercile (prob)		
Nanumea	88	558	7	767	5		
Nui	88	576	6	753	6		
Funafuti	76	699	9	808	15		
Niulakita	73	536	5	668	22		

Summary Statements

Rainfall for March 2018:

Rainfall in March was **below normal** rainfall at all meteorological stations except Nanumea station recorded **normal** rainfall

Accumulated rainfall for January to March 2018, including outlook verification:

Rainfall over the last three months was **below normal** rainfall at all meteorological stations except **above normal** rainfall for Nanumea.

The SCOPIC outlooks for the last three months was Inconsistent at Nanumea and Niulakita, while **consistent** at Nui and Funafuti stations.

Outlooks for May to July 2018:

1. SCOPIC:

The outlook for Nanumea, Nui and Funafuti stations for May to June shows rainfall favours below normal, with normal the next most likely. The outlook for Niulakita shows below normal as the most likely outcome, with normal the next most likely. Above normal rainfall is the least likely.

Outlook confidence ranges from Low to very high. For Nui and Funafuti there is a very high outlook confidence, high confidence for Nanumea while Niulakita is low outlook confidence.

2. POAMA:

Rainfall outlook for Funafuti and Niulakita for the next three months showed **below normal** as the most likely outcome, with **below normal** the next most likely. **Normal** rainfall is the least likely.

Rainfall outlook for Nanumea and Nui for the next three months showed below normal rainfall as the most likely outcome, with near-equal likelihood of normal and below normal rainfall is the next most likely.

Overall Outlook for Tuvalu: Will be below normal rainfall as the most likely outcome.

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: $X \geq 35$