

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 79

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)	March 2013						
	January 2014	February 2014 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	351.3	399.8	175.6	214.0	348.0	270.0	11/42
Niutatoputapu	220.1	237.9	221.7	182.3	317.3	238.0	27/64
Central Division							
Vavaú	381.5	142.1	319.0	229.0	366.0	303.0	37/68
Haápai	375.6	277.4	412.1	180.0	313.0	234.0	58/68
Southern Division							
Nukuálofa	421.5	178.6	509.9	168.7	255.7	211.0	69/70
Fuaámotu	348.8	229.9	507.3	146.0	246.0	176.5	35/35

TABLE 2: Three-monthly Rainfall

January 2014 to March 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #75]

Predictors and Period used: SSTa's 1@9 –September to November 2013

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?)
Northern Division							
Niuafoóu	926.7	757.0	969.5	904.0	22/38	10,27,63 (9.1)	Near consistent
Niutatoputapu	679.7	655.0	932.3	813.0	27/64	23,41,36 (12.9)	Consistent
Central Division							
Vavaú	842.6	688.7	937.3	854.8	33/67	22,34,45 (9.9)	Consistent
Haápai	1065.1	562.0	778.0	660.0	66/68	5,32,63 (26.2)	Consistent
Southern Division							
Nukuálofa	1110.0	490.7	814.6	636.0	67/70	14,51,35 (15.9)	Near consistent
Fuaámotu	1086.0	460.0	783.0	603.5	32/35	7, 23, 70 (22.3)	Consistent

Period: *below normal/normal/above normal

* 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 2014

Predictors and Period used: SSTa's 1@9 – January to March 2014

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafoóu	38	432.0	62		0.1	53.8
Niuaotoputapu	45	360.6	55		1.7	43.5
Central Division						
Vavaú	22	358	78		18.8	64.6
Haápai	43	240.5	57		5.7	54.7
Southern Division						
Nukuálofa	46	294.6	54		8.0	61.5
Fuaámotu	37	366.0	63		13.5	63.6

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafoóu	28	374.3	28	474.0	44	-3.0	17.9
Niuaotoputapu	21	322.0	42	407.0	37	2.8	37.1
Central Division							
Vavaú	19	301.0	27	401.0	53	12.5	47.7
Haápai	23	209.7	31	303.3	46	5.0	34.4
Southern Division							
Nukuálofa	14	234.7	42	343.0	44	14.1	35.4
Fuaámotu	15	271.3	36	441.0	49	8.9	36.4

TABLE 4: Seasonal Climate Outlooks using POAMA2 for May 2014 to July 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	36	259	40	414	24		

Summary Statements

Rainfall for March 2014:

Northern Division: Niuafóú: Below Normal.

Niutoputapu: Normal

Central Division: Vava'u: Normal.

Ha'apai: Above Normal

Southern Division: Above Normal.

Accumulated rainfall for January - March 2014, including outlook verification:

Northern Division: Normal, forecast was Near consistent for Niuafóú and consistent for Niutoputapu.

Central Division: Vava'u: Normal, forecast was Consistent,
Ha'apai: Above normal, forecast was Consistent.

Southern Division: Above Normal, forecast was near consistent for Nukuálofa and consistent for Fuaámotu.

Outlooks for May - July 2014:

1. SCOPIC:

Northern Division: The seasonal outlook for Niuafóú shows the most likely outcome is Above normal. Confidence in the outlook is very low.

The seasonal outlook for Niutoputapu shows the most likely outcome is Normal, with Above normal the next most likely. Confidence in the outlook is low.

Central Division: The seasonal outlooks for Vava'u and Ha'apai show the most likely outcome is Above normal, with Normal the next most likely. Confidence in the outlook is moderate to good.

Southern Division: The seasonal outlooks for Nukuálofa and Fuaámotu show the most likely outcome is Above normal, with Normal the next most likely. Confidence in the outlook is moderate to good.

2. POAMA: The POAMA seasonal outlook for Nuku'alofa shows the most likely outcome is Normal, with Below normal the next most likely.

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: $X \geq 35$