

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 68

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)			April 2013				
	February 2013 Total	March 2013 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	314.0	450.4	315.1	150.3	286.3	209	30/43
Niuaatoputapu	210.2	116.8	167.4	159.9	268.7	214.5	23/67
Central Division							
Vavaú	201.6	311.3	139.1	170.3	267.0	212.5	20/67
Haápai	271.4	335.4	87.2	122.5	246.6	171.5	12/67
Southern Division							
Nukuálofa	287.8	531.2	92.2	112.0	207.7	138.0	21/69
Fuaámotu	550.5	445.0	88.3	107.0	256.7	172.0	9/34

TABLE 2: Three-monthly Rainfall

February 2013 to April 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #64]

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	1079.5	719.0	937.0	886.0	34/43	30,13,57 (3.8)	Consistent
Niuaatoputapu	494.4	689.0	847.4	765.0	8/67	31,20,49 (1.1)	Inconsistent
Central Division							
Vavaú	652.0	706.0	918.2	831.6	16/67	42,28,30 (2.2)	Consistent
Haápai	694.0	534.7	708.0	645.0	44/67	41,41,18 (13.5)	Near Consistent
Southern Division							
Nukuálofa	911.2	542.7	662.8	600.0	59/69	31,29,40 (2.7)	Consistent
Fuaámotu	1083.8	455.3	655.3	507.0	32/34	44,23,33 (5.7)	Inconsistent

Period: *below normal/normal/above normal

Predictors and Period used for February 2013 to April 2013 Outlooks (refer to OCOF #64):

Predictors – SSTa's I & 9 Period; Oct – Dec with 1 month lead.

* 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 June to August 2013

Predictors and Period used: SSTa's 1@9 – February 2013 to April 2013

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafoou	31	276.0	35	415.0	34	-2.0	37.8
Niuaotoputapu	28	231.0	38	349.1	34	0.1	30.2
Central Division							
Vavau	28	253.0	35	347.7	37	1.2	29.7
Haapai	35	190.7	31	308.9	34	-2.5	28.1
Southern Division							
Nukuálofa	30	238	34	364.7	36	-2.8	20.3
Fuaámotu	29	269.4	32	401.7	39	-0.7	36.4

TABLE 4: Seasonal Climate Outlooks using POAMA2 for June to August 2013

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	10	261	50	402	40		

Summary Statements

Rainfall for April 2013:

Northern Division: Normal and Above normal.

Central Division: Below normal.

Southern Division: Below Normal.

Accumulated rainfall for February–April 2013, including outlook verification:

Northern Division: Niuafu'ou: Above normal. Forecast was consistent.

Niuaatoputapu: Below normal. Forecast was inconsistent.

Central Division: Vava'u: Below normal. Forecast was consistent

Ha'apai: Normal. Forecast was Near consistent.

Southern Division: Fua'ámotu: Above normal. Forecast was Inconsistent.

Nuku'alofa: Above normal. Forecast was consistent.

Outlooks for June–August 2013:

1. SCOPIC:

Northern Division: Normal

Central Division: Below normal in Ha'apai and Above normal in Vava'u.

Southern Division: Above normal.

2. POAMA: Outlook Normal for Nuku'alofa.

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: $X \geq 35$