

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 72

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)	August 2013						
	June 2013 Total	July 2013 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	79.1	204.5	205.4	63.0	126.0	84.5	36/43
Niuaatoputapu	77.3	236.9	194.3	49.7	100.0	66.0	60/67
Central Division							
Vavaú	30.8	221.9	360.9	61.7	125.7	81.0	67/67
Haápai	67.1	110.6	104.2	58.5	112.0	77.0	44/67
Southern Division							
Nukuálofa	77.3	80.0	127.6	67.0	136.3	100.0	41/69
Fuaámotu	84.5	112.5	140.7	75.8	138.3	95.0	23/34

TABLE 2: Three-monthly Rainfall

June 2013 to August 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #68]

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	489.0	276.0	415.0	361.0	31/43	31,35,34 (-2.0)	Near Consistent
Niuaatoputapu	508.5	231.0	349.1	297.0	60/67	28,38,34 (0.1)	Near Consistent
Central Division							
Vavaú	613.6	253.0	347.7	307.5	61/67	28,35,37 (1.2)	Consistent
Haápai	281.9	190.7	308.9	273.0	38/67	35,31,34 (-2.5)	Near Consistent
Southern Division							
Nukuálofa	284.9	238.0	364.7	298.0	30/69	30,34,36 (-2.8)	Near Consistent
Fuaámotu	337.7	269.4	401.7	366.7	14/34	29,32,39 (-0.7)	Near Consistent

Period: *below normal/normal/above normal

Predictors and Period used for June 2013 to August 2013 Outlooks (refer to OCOF #65):

Predictors – SSTa's I & 9 Period; Feb 2013 – April 2013 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 October to December 2013

Predictors and Period used: SSTa's 1@9 – June 2013 to August 2013

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafoóu	29	709.0	71		8.8	63.2
Niuaatoputapu	34	640.0	66		12.6	62.7
Central Division						
Vavaú	28	530.0	72		15.8	67.2
Haápai	25	354.0	75		14.0	67.2
Southern Division						
Nukuálofa	14	351.0	86		27.4	69.8
Fuaámotu	25	364.0	75		8.0	57.6

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafoóu	20	632.3	25	840.1	55	4.9	42.1
Niuaatoputapu	19	532.0	29	746.0	52	4.3	37.3
Central Division							
Vavaú	14	381.3	22	624.7	64	17.4	53.1
Haápai	15	267.6	14	423.0	71	17.9	51.6
Southern Division							
Nukuálofa	15	285.3	25	420.3	60	22.6	55.6
Fuaámotu	8	298.5	13	434.5	79	28.1	60.6

TABLE 4: Seasonal Climate Outlooks using POAMA2 for September to November 2013

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nukuálofa	30.00	229	36.67	380	33.33		

Summary Statements

Rainfall for July 2013:

Northern Division: Above Normal.

Central Division: Above normal in Vava'u, Normal in Ha'apai.

Southern Division: Normal in Nuku'alofa, Above normal in Fua'amotu.

Accumulated rainfall for June–August 2013, including outlook verification:

Northern Division: Niuafu'ou: Above Normal, forecast was Near Consistent.

Niuaatoputapu: Above Normal, forecast was Near Consistent

Central Division: Above in Vava'u, forecast was Consistent

Normal in Ha'apai, forecast was Near Consistent

Southern Division: Nuku'alofa: Normal, forecast was Near Consistent

Fua'amotu: Normal, forecast was Near Consistent

Outlooks for October-December 2013:

1. SCOPIC:

Northern Division: Niuafu'ou: Above Normal

Niuaatoputapu: Above Normal.

Central Division: Vava'u: Above Normal.

Ha'apai: Above Normal

Southern Division: Fua'amotu: Above Normal

Nuku'alofa: 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: $X \geq 35$