

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 84

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)	August 2014						
	June 2014 Total	July 2014 Total	August 2014 Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafóou	33.4	11.7	37.1	63.0	127.3	86.0	3/44
Niuatoputapu	28.3	125.2	148	50.3	102.3	66.5	54/67
Central Division							
Vavaú	41.9	54.9	42.4	62.0	127.0	81.0	16/68
Haápai	30.1	47.2	34.6	59.1	111.0	78	15/68
Southern Division							
Nukuálofa	144.3	157.7	15.3	68.0	135.7	102.0	1/70
Fuaámotu	134.7	121.3	13.9	79.0	140.7	99.8	1/35

TABLE 2: Three-monthly Rainfall

July to August 2014

[Please note that the data used in this verification should be sourced from table 3 of OCOF #80]

Predictors and Period used: SSTa's 1 & 9 – March to April 2014

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							
Niuafóou	82.2	277.3	419.0	375.0	6/44	30,38,32 (-1.6)	Near consistent
Niuatoputapu	301.5	231.0	352.1	304.5	30/68	21,43,36 (0.8)	Consistent
Central Division							
Vavaú	139.2	254.0	353.0	308.0	5/68	21,34,45 (0.9)	Inconsistent
Haápai	111.9	191.0	314.0	275.0	6/68	35,25,40 (-1.9)	Inconsistent
Southern Division							
Nukuálofa	317.3	240.0	362.3	298.0	43/70	29,34,37 (-3.3)	Near consistent
Fuaámotu	269.9	271.1	401.0	359.9	12/35	25,30,45 (-0.4)	Inconsistent

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 October to December 2014

Predictors and Period used: NINO 3.4 SST Anomalies– July to August 2014

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafo'ou	50	711	50		-0.9	46.2
Niuaatapotapu	52	664.5	48		8.5	61
Central Division						
Vava'u	53	544	47		18.6	75
Ha'apai	52	350	48		14.4	67.2
Southern Division						
Nuku'alofoa	53	351	47		27	68.8
Fua'amotu	48	366.5	52		9	64.7

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafo'ou	34	638.7	33	855	33	-1.0	28.2
Niuaatapotapu	34	533	35	746.7	31	7.0	42.4
Central Division							
Vava'u	35	383	39	618.3	26	21.3	50
Ha'apai	36	256.9	38	421	26	17.7	57.8
Southern Division							
Nuku'alofoa	29	294	42	421	29	29.7	62.5
Fua'amotu	17	309	44	435	39	27.9	44.1

TABLE 4: Seasonal Climate Outlooks using POAMA2 for October 2014 to December 2014

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	66%ile rainfall (mm)	Upper Tercile (prob)		
Nuku'alofoa	12.12	189	83.88	309	5		

Summary Statements

Rainfall for August 2014:

Northern Division: Niuafóú: Below normal

Nuatoputapu: Above normal

Central Division: Below normal

Southern Division: Below normal

Accumulated rainfall for July-August 2014, including outlook verification:

Northern Division: Niuafó'u: Below Normal, forecast was near consistent

Nuatoputapu: Normal, forecast was consistent.

Central Division: Below normal, forecast was Inconsistent

Southern Division: Nuku'alofa: Normal, forecast was near consistent

Fua'amotu: Below normal, forecast was inconsistent

Outlooks for October - December 2014:

1. SCOPIC:

The SCOPIC seasonal rainfall outlook for October to December 2014 shows:

- The chances of above-normal, normal and below-normal rainfall are similar for the Northern division.
- The most likely outcome for the Central division is normal, the next most likely is below normal.
- The most likely outcome for Nuku'alofa in the Southern division is normal and the next most likely is below normal, the most likely outcome for Fua'amotu is normal and the next most likely is above normal.

2. POAMA:

- POAMA seasonal Outlook for Nuku'alofa for October to December shows the most likely outcome is normal

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: $X \geq 35$