

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 71

Country Name: TONGA

TABLE 1: Monthly Rainfall

Station (include data period)	July 2013						
	May 2013 Total	June 2013 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Northern Division							
Niuafoóu	151.4	79.1	204.5	62.0	149.0	116.0	38/43
Niuaatoputapu	149.5	77.3	236.9	58.3	130.3	83.5	65/67
Central Division							
Vavaú	125.5	30.8	221.9	64.3	119.5	80.3	62/67
Haápai	79.9	67.1	110.6	55.7	104.0	74.2	46/67
Southern Division							
Nukuálofa	56.6	77.3	80.0	64.0	115.7	84.0	33/69
Fuaámotu	58.7	84.5	112.5	75.3	160.7	105.0	18/34

TABLE 2: Three-monthly Rainfall

May 2013 to July 2013

[Please note that the data used in this verification should be sourced from table 3 of OCOF #67]

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	435.0	373.7	476.9	435.0	22/43	32, 32, 36 (-2.6)	Near Consistent
Niuaatoputapu	463.7	321.3	405.0	357.0	46/67	28, 41, 31 (2.3)	Near Consistent
Central Division							
Vavaú	378.2	300.0	402.0	352.5	38/67	31 32, 37 (11.4)	Near Consistent
Haápai	257.6	208.3	307.7	237.0	36/67	32, 33, 35 (5.3)	Near consistent
Southern Division							
Nukuálofa	213.9	237.3	343.0	295.1	18/69	22, 39, 39 (15.6)	Near Consistent
Fuaámotu	255.7	273.6	441.9	372.0	10/34	25,37,38 (10.9)	In Consistent

Period: *below normal/normal/above normal

Predictors and Period used for May 2013 to July 2013 Outlooks (refer to OCOF #65):

Predictors – SSTa's I & 9 Period; Jan 2013 – Mar 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 September to November 2013

Predictors and Period used: SSTa's 1@9 – May 2013 to July 2013

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Northern Division						
Niuafoóu	31	556.0	69		6.1	69.2
Niuaotoputapu	37	482.0	63		6.9	54.1
Central Division						
Vavaú	29	421.5	71		15.2	62.5
Haápai	39	304.5	61		0.2	51.6
Southern Division						
Nukuálofa	26	354.7	74		13.7	65.1
Fuaámotu	24	314	76		18.5	75.8

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	66%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Northern Division							
Niuafoóu	27	448.0	30	637.0	43	-0.7	35.9
Niuaotoputapu	27	388.3	32	401.7	41	1.9	32.8
Central Division							
Vavaú	18	365.3	14	547.0	68	12.8	54.7
Haápai	22	246.0	22	405.3	56	4.9	46.9
Southern Division							
Nukuálofa	12	240.6	32	430.0	56	14.1	46.0
Fuaámotu	14	252.3	29	371.8	57	11.1	42.4

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	Data not updated						

Summary Statements

Rainfall for July 2013:

Northern Division: Above normal

Central Division: Above normal

Southern Division: Normal

Accumulated rainfall for May–July 2013, including outlook verification:

Northern Division: Niuafono'u: Normal, forecast was Near Consistent.

Niuatoputapu: Above Normal, forecast was Near Consistent

Central Division: Normal in Vava'u, forecast was Near Consistent

Normal in Ha'apai, forecast was Near Consistent

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

Fua'amotu: Below normal, forecast was In Consistent

Outlooks for September-November 2013:

1. SCOPIC:

Northern Division: Niuafono'u: Above Normal

Niuatoputapu: Above Normal.

Central Division: Vava'u: Above Normal.

Ha'apai: Above Normal

Southern Division: Fuaámotu: Above Normal

Nukuálofa: Above Normal

2. POAMA: Not update

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: $X \geq 35$