

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 152

Country: Tonga

TABLE 1: Monthly Rainfall

Station (include data period)	Feb-2020	Mar-2020	Apr-2020				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
<i>Northern Division</i>							
Niuafo'ou (1971-2020)	135.0	87.0	208.5	180.0	299.0	220.9	22/49
Niuatoputapu (1947-2020)	325.5	61.9	385.1	169.6	302.7	226.0	61/70
Vava'u (1947-2020)	351.7	135.3	518.6	178.0	267.0	217.0	<b>72/74</b>
Ha'apai (1947-2020)	189.5	133.1	224.5	113.0	234.0	163.9	49/74
<i>Southern Division</i>							
Fua'amotu (1979-2020)	88.8	339.8	221.5	97.0	238.1	171.1	27/41
Nuku'alofa (1944-2020)	62.5	539.0	233.0	112.0	211.7	137.0	55/75

**TABLE 2: Three-month Rainfall for February to April 2020**

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 November-December 2019				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Northern Division</i>											
Niuafo'ou (1971-2020)	430.5	Below normal	728.5	938.3	888.4	4/45	35	34	31	1	Consistent
Niuaatoputapu (1947-2020)	772.5	Normal	691.0	845.0	774.0	34/68	40	24	36	1	Near-consistent
<i>Central Division</i>											
Vava'u (1947-2020)	1005.6	Above normal	713.0	915.0	826.2	58/74	39	31	30	1	Inconsistent
Ha'apai (1947-2020)	547.1	Normal	546.0	714.0	652.8	26/74	40	35	25	6	Near-consistent
<i>Southern Division</i>											
Fua'amotu (1979-2020)	650.1	Normal	469.8	690.8	521.5	25/41	40	36	24	9	Near-consistent
Nuku'alofa (1944-2020)	834.5	Above normal	551.7	714.6	622.0	60/75	36	36	28	0	Near-consistent

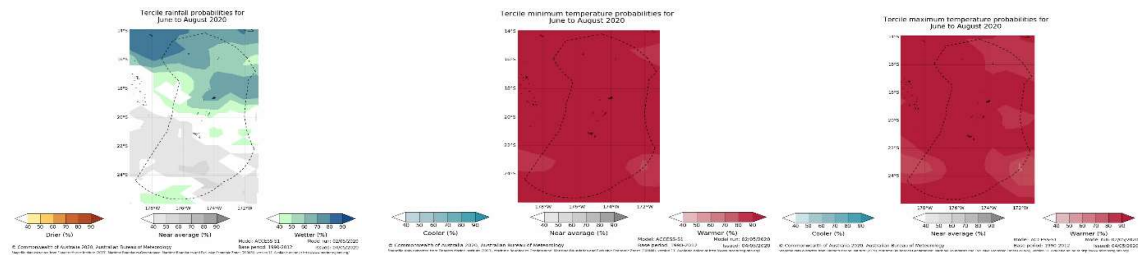
**TABLE 3: Seasonal Climate Outlooks using SCOPIC for June to August 2020**

Predictor and Period used: NINO3.4 for March to April 2020

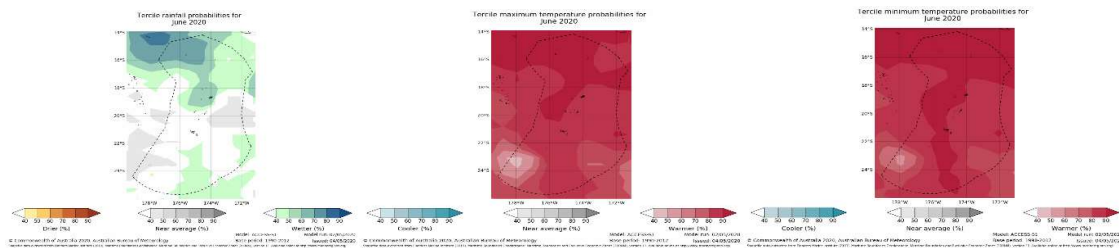
Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<b>Northern Division</b>					
Niuafou'ou (1971-2020)	53	348.5	47	-2	27
Niuatoputapu (1947-2020)	50	313.0	50	-2	23
<b>Central Division</b>					
Vava'u (1947-2020)	51	309.5	49	-1	43
Ha'apai (1947-2020)	57	276.5	43	1	56
<b>Southern Division</b>					
Fua'amotu (1979-2020)	48	351.0	52	-2	58
Nuku'alofa (1944-2020)	49	298.1	51	-1	53

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<b>Northern Division</b>							
Niuafou'ou (1971-2020)	35	274.9	26	415.0	39	-2	32
Niuatoputapu (1947-2020)	39	239.7	27	360.3	34	-1	41
<b>Central Division</b>							
Vava'u (1947-2020)	37	251.0	28	354.0	35	-1	29
Ha'apai (1947-2020)	34	195.0	37	306.2	29	-1	33
<b>Southern Division</b>							
Fua'amotu (1979-2020)	33	271.1	31	401.0	36	-3	38
Nuku'alofa (1944-2020)	30	236.0	34	374.9	36	-1	27

**Monthly and Seasonal Climate Outlooks using ACCESS-S for June to Aug 2020**



# Monthly Climate Outlooks using ACCESS-S for June 2020



## Summary Statements

### Rainfall for April 2020:

Above normal rainfall fell at Niuatoputapu, Vava'u and Nuku'alofa, and normal rainfall was recorded at Niufo'ou, Ha'apai and Fua'amotu. Vava'u recorded its third highest April rainfall on record.

### Accumulated rainfall for February to April 2020, including outlook verification:

Rainfall was below normal for Niufo'ou, but normal to above normal across the rest of the country. Niufo'ou recorded its fourth driest February- April rainfall on record.

The outlook issued in January was verified as Inconsistent at Vava'u, Consistent at Niufo'ou and Near-consistent for the rest of the Country.

### Outlooks for June to August 2020:

#### 1. SCOPIC:

**Niufo'ou:** The outlook shows above normal as the most likely outcome, with below normal the next most likely; normal is the least likely.

**Niuatoputapu:** The outlook shows below normal as the most likely outcome, with above normal the next most likely; normal is the least likely.

**Vava'u, Ha'apai, Fua'amotu and Nuku'alofa:** The outlook offers little guidance as the chances of below normal, above normal and normal are similar.

#### 2. ACCESS-S:

##### Monthly rainfall:

The Northern part of the group especially Vava'u, Niufo'ou and Niuatoputapu are expected to be wetter than average with a probability of 60-70% at Vava'u, 40-50% at Niuatoputapu and 70-80% at Niufo'ou.

For the Southern part of the group the outlook offers little guidance.

##### Monthly maximum and minimum temperatures:

Warmer than average is strongly favoured across the country.

##### Seasonal rainfall:

The Northern and Central part of the group are favoured to be wetter than average with a probability of 70-80% for Niufo'ou and Vava'u, 60-70% Niuatoputapu and 40-50% at Ha'apai. The outlook offers little guidance for the southern parts of the group.

**Seasonal maximum and minimum temperatures:**

Warmer than average is strongly favoured across the country.

**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:  $X \geq 35$

**Table: 5 Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders**

<b>Product</b>	<b>Date: April 2020</b>	<b>Stakeholder</b>	<b>Total Number of Participants</b>	<b>Number of male</b>	<b>Number of female</b>
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing					
Ocean Bulletin					
<b>Total</b>					