

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 153

Country: Tonga

TABLE 1: Monthly Rainfall

Station (include data period)	Mar-2020	Apr-2020	May-2020				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
<i>Northern Division</i>							
Niuafo'ou (1971-2020)	87.0	208.5	262.0	136.0	206.7	155.7	36/49
Niuatoputapu (1947-2020)	61.9	385.1	300.7	124.0	174.3	150.9	65/70
<i>Central Division</i>							
Vava'u (1947-2020)	135.3	518.6	242.4	97.0	191.0	139.0	64/74
Ha'apai (1947-2020)	133.1	224.5	89.6	67.6	135.0	94.0	36/73
<i>Southern Division</i>							
Fua'amotu (1979-2020)	339.8	221.5	68.0	68.7	169.0	110.5	14/41
Nuku'alofa (1944-2020)	539.0	233.0	46.0	68.6	139.0	95.5	14/76

**TABLE 2: Three-month Rainfall for March to May 2020**

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 December 19-January 20				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Northern Division</i>											
Niuafo'ou (1971-2020)	557.5	Below normal	644.5	804.6	767.0	11/48	32	33	35	-2	Inconsistent
Niuaatoputapu (1947-2020)	747.7	Above normal	591.0	733.3	640.5	45/66	30	37	33	-2	Near-consistent
<i>Central Division</i>											
Vava'u (1947-2020)	896.3	Above normal	590.0	780.0	706.8	63/74	36	35	29	0	Inconsistent
Ha'apai (1947-2020)	447.2	Normal	442.7	627.0	557.5	26/73	35	37	28	1	Consistent
<i>Southern Division</i>											
Fua'amotu (1979-2020)	629.3	Above normal	422.0	580.0	507.2	30/41	41	23	36	2	Inconsistent
Nuku'alofa (1944-2020)	818.0	Above normal	442.7	558.0	497.0	68/75	39	30	31	1	Inconsistent

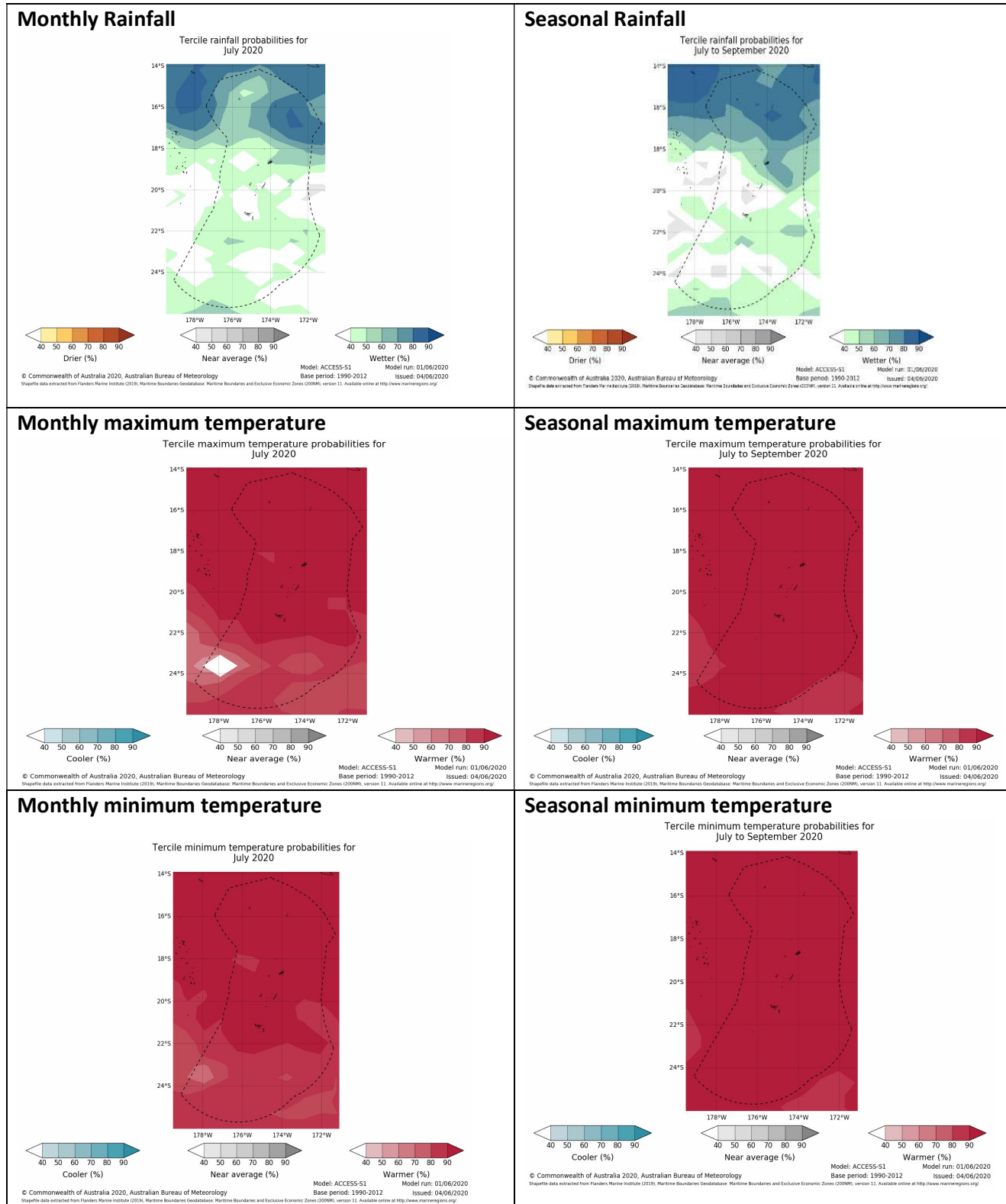
**TABLE 3: Seasonal Climate Outlooks using SCOPIC for July to September 2020**

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

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<i>Northern Division</i>						
Niuafo'ou (1971-2020)	52	338.5	48		-1	54
Niuaotoputapu (1947-2020)	50	286.0	50		-2	30
<i>Central Division</i>						
Vava'u (1947-2020)	52	346.0	47		0	56
Ha'apai (1947-2020)	57	291.6	43		7	56
<i>Southern Division</i>						
Fua'amotu (1979-2020)	51	366.5	49		-1	53
Nuku'alofa (1944-2020)	51	326.5	49		-1	49

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<i>Northern Division</i>							
Niuafo'ou (1971-2020)	36	258.3	29	434.0	35	-1	35
Niuaotoputapu (1947-2020)	34	214.0	35	365.0	31	-1	30
<i>Central Division</i>							
Vava'u (1947-2020)	35	257.0	36	399.0	29	0	39
Ha'apai (1947-2020)	36	237.5	34	346.0	30	1	34
<i>Southern Division</i>							
Fua'amotu (1979-2020)	33	298.0	34	417.0	33	-2	48
Nuku'alofa (1944-2020)	35	277.0	35	378.0	30	-1	37

# Monthly and Seasonal Climate Outlooks using ACCESS-S for July to September 2020



## **Summary Statements**

### **Rainfall for May 2020:**

Rainfall was above normal over the Northern Division and Vava'u, normal at Ha'apai, and below normal in the Southern Division. Niutoputapu recorded its sixth wettest May on record.

### **Accumulated rainfall for March to May 2020, including outlook verification:**

Rainfall was generally above normal apart from below normal recorded at Niuafou'ou, and normal recorded at Ha'apai. Nuku'alofa recorded its eighth wettest March to May on record.

The forecast issued in February was consistent for Ha'apai and near-consistent for Niuatoputapu, but inconsistent for Niuafou'ou, Vava'u and the Southern Division.

### **Outlooks for July to September 2020:**

#### **1. SCOPIC:**

The outlook offers little guidance as the chances of above normal, normal and below normal are similar for the country.

#### **2. ACCESS-S:**

##### **Seasonal rainfall:**

Above average rainfall is favoured for Northern part of the group, especially Niuatoputapu, Niuafou'ou and Vava'u, while above average to near-average rainfall is the most likely for Ha'apai down to the Southern Division.

##### **Seasonal maximum temperature and Seasonal minimum temperature: July to September**

A warmer than average July to September is favoured across the country.

##### **Monthly rainfall:**

Above average rainfall is favoured in Northern division and Vava'u, while above average to near-average rainfall is the most likely outcome for Ha'apai down to the Southern Division.

##### **Monthly maximum temperature and Monthly minimum temperature: July**

Warmer than average is favoured across Tonga for the month of July.

**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: May 2020</b>	<b>Stakeholder</b>	<b>Total Number of Participants</b>	<b>Number of male</b>	<b>Number of female</b>
Climate Bulletin	03/05/2020	General public	132	66	34
EAR Watch					
Monthly Climate Briefing					
Ocean Bulletin	03/05/2020	General public	132	66	34
<b>Total</b>					132