

# Pacific Islands - Online Climate Outlook Forum (OCOF) No. 142

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Apr-2019	May-2019	Jun-2019				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2019)				158.4	224.9	205.3	
Nadzab (1973-2019)	103.0	68.8	177.4	63.7	120.5	81.8	39/46
Wewak (1894-2019)	127.8	275.4	147.2	173.2	228.2	204.4	16/64
Vanimo (1918-2019)	261.6	102.0	179.8	168.4	245.8	202.4	25/65
Highlands Region							
Goroka (1948-2019)	103.0	60.6	86.0	44.6	76.0	56.0	43/55
New Guinea Islands Region							
Momote (1949-2019)	238.4	393.8	318.0	231.0	314.0	281.0	44/65
Kavieng (1916-2019)	365.8	311.6	351.8	192.0	274.7	216.0	75/89
Southern Region							
Misima (1917-2019)	199.2	107.8	93.8	125.0	276.1	201.8	21/93
Port Moresby (1875-2019)	118.4	101.6	82.8	10.9	43.1	22.6	105/121

**TABLE 2: Three-month Rainfall for April to June 2019**

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 January-February 2019				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Momase Region											
Madang (1944-2019)			902.7	1075.3	1010.4		43	39	18	9	
Nadzab (1973-2019)	349.2	Normal	270.7	350.3	322.3	29/43	35	29	36	-3	Near-consistent
Wewak (1894-2019)	550.4	Below normal	570.2	671.4	642.4	20/63	37	30	33	-1	Consistent
Vanimos (1918-2019)	543.4	Below normal	586.5	739.8	653.0	15/62	31	36	33	-2	Near-consistent
Highlands Region											
Goroka (1948-2019)	249.6	Below normal	333.0	425.3	397.2	6/51	34	32	34	-3	Near-consistent
New Guinea Islands Region											
Momote (1949-2019)	950.2	Above normal	710.8	897.1	833.1	47/63	38	27	35	-1	Inconsistent
Kavieng (1917-2019)	1029.2	Above normal	697.4	889.1	796.1	76/87	29	33	38	0	Consistent
Southern Region											
Misima (1917-2019)	400.8	Below normal	610.6	883.3	743.1	11/92	48	39	13	18	Consistent
Port Moresby (1875-2019)	302.8	Above normal	195.4	288.9	244.3	86/114	51	27	22	16	Inconsistent

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for August to October 2019**

Predictor and Period used: NINO3.4 for May to June 2019

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<b>Momase Region</b>						
Madang (1944-2019)	<b>87</b>	472.4	13		26	75
Nadzab(1973-2019)	<b>67</b>	332.0	33		7	58
Wewak (1894-2019)	<b>85</b>	571.2	15		27	69
Vanimo (1918-2019)	<b>57</b>	521.2	43		1	52
<b>Highlands Region</b>						
Goroka (1948-2019)	47	342.6	<b>53</b>		-2	61
<b>New Guinea Islands Region</b>						
Momote (1949-2019)	48	756.0	<b>52</b>		-1	56
Kavieng (1916-2019)	48	629.2	<b>52</b>		-2	53
<b>Southern Region</b>						
Misima (1917-2019)	<b>90</b>	626.4	10		31	73
Port Moresby (1875-2019)	50	77.4	50		-2	25

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>Momase Region</b>							
Madang (1944-2019)	<b>72</b>	397.8	22	606.5	6	26	53
Nadzab (1973-2019)	<b>45</b>	274.3	29	387.8	26	2	26
Wewak (1894-2019)	<b>71</b>	487.1	22	652.4	7	26	50
Vanimo (1918-2019)	<b>36</b>	484.5	35	554.3	29	-2	12
<b>Highlands Region</b>							
Goroka (1948-2019)	30	277.0	31	387.3	<b>39</b>	-2	8
<b>New Guinea Islands Region</b>							
Momote (1949-2019)	30	649.0	33	901.0	<b>37</b>	-1	19
Kavieng (1916-2019)	34	509.8	31	724.1	<b>35</b>	-2	18
<b>Southern Region</b>							
Misima (1917-2019)	<b>60</b>	456.0	36	766.7	4	24	53
Port Moresby (1875-2019)	<b>40</b>	59.0	26	103.1	34	-1	33

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for August to October 2019**

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
<b>Momase Region</b>					
Madang	49	311.0	24	568.0	27
Nadzab	61	199.0	15	342.0	24
Wewak	21	454.0	24	627.0	55
<b>New Guinea Islands Region</b>					
Momote	42	650.0	25	857.0	33
Kavieng	55	489.0	24	659.0	21
<b>Southern Region</b>					
Misima	61	226.0	18	593.0	21
Port Moresby	76	36.0	6	81.0	18
Daru	40	63.0	42	134.0	18

## **Summary Statements**

### **Rainfall for June 2019:**

Rainfall was above normal at all the stations, except Wewak and Misima with below normal rainfall, and Vanimo which recorded normal rainfall. At the time of compiling this outlook, no reports of rainfall were received from Madang station.

### **Accumulated rainfall for April to June 2019, including outlook verification:**

Above normal occurred over the New Guinea Islands region and Port Moresby, but elsewhere three-month totals were generally below normal; the exception was Nadzab with normal rainfall.

The outlook was consistent at Wewak, Kavieng & Misima, inconsistent at Momote & Port Moresby, and near-consistent at all other stations.

The three-month total was not available for Madang.

### **Outlooks for August to October 2019:**

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

Madang/Wewak/Misima:	The outlook favours below-normal rainfall, with normal the next most likely.
Nadzab/Port Moresby:	The outlook shows below normal as the most likely outcome, with normal the next most likely for Nadzab and above normal the next most likely for Port Moresby. Below normal is the least likely outcome for Nadzab and at Port Moresby it's normal rainfall.
Vanimo/Goroka/NGI:	The outlook offers little guidance as the chances of above normal, normal and below normal are similar.

Confidence range from very low to very high

## 2. POAMA:

POAMA model shows below normal as the favoured or most likely outcome at most monitoring stations. The exceptions are Wewak where above normal rainfall is the most likely, and Daru where there's a near-equal chance of below normal or normal rainfall.

**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**

Product	Date: June 2019	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing					
Ocean Bulletin					
National DRR workshop	27th	UNDP, Aust DFAT, USAID, Pngrcs, CCDA, DMPGM, NWS, UPNG, WVI	39	29	10
<b>Total</b>			39	29	10