

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 139

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Jan-2019	Feb-2019	Mar-2019				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2019)	303.0	596.0					
Nadzab (1973-2019)	343.6	179.6	169.0	142.0	203.2	158.8	25/44
Wewak (1894-2019)	189.0	126.8	98.0	132.3	184.0	157.7	10/63
Vanimo (1918-2019)	425.8	305.0	407.4	215.3	356.7	276.8	54/67
Highlands Region							
Goroka (1948-2019)	196.8		328.2	204.3	274.9	234.5	47/57
New Guinea Islands Region							
Momote (1949-2019)	282.9	167.6	324.6	275.0	339.9	304.2	38/63
Kavieng (1916-2019)	213.6		270.0	286.2	376.4	342.0	32/86
Southern Region							
Misima (1917-2019)	208.8		280.2	214.6	320.3	252.9	56/94
Port Moresby (1875-2019)	593.4	64.8	371.4	158.6	272.9	206.8	124/131

TABLE 2: Three-month Rainfall for January to March 2019

Station	Three-month Total	33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities* based on NINO3.4 October-November 2018				Verification: Consistent, Near- consistent, Inconsistent?	
	Rainfall (mm)					B-N	N	A-N	LEPS		
<i>Momase Region</i>											
Madang (1944-2019)			984.0	1074.7	951.8		13	46	41	11	
Nadzab (1973-2019)	692.2	Above normal	434.0	525.8	470.4	41/44	17	40	43	8	Consistent
Wewak (1894-2019)	413.8	Normal	367.2	455.5	428.3	27/63	46	31	23	5	Near-consistent
Vanimo (1918-2019)	1138.2	Above normal	730.2	943.9	868.2	53/64	24	32	44	3	Consistent
<i>Highlands Region</i>											
Goroka (1948-2019)			643.0	788.2	716.6		21	28	51	8	
<i>New Guinea Islands Region</i>											
Momote (1949-2019)	775.1	Normal	764.4	924.2	815.0	24/63	29	27	44	1	Near-consistent
Kavieng (1917-2019)			854.0	1012.0	950.0		20	40	40	3	
<i>Southern Region</i>											
Misima (1917-2019)			714.3	931.3	785.4		48	33	19	8	
Port Moresby (1875-2019)	1029.6	Above normal	504.6	638.8	574.1	130/131	43	33	24	4	Inconsistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for May to July 2019

Predictor and Period used: NINO3.4 for February to March 2019

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2019)	73	744.2	27		18	69
Nadzab(1973-2019)	56	305.8	44		-1	65
Wewak (1894-2019)	61	630.2	39		5	57
Vanimo (1918-2019)	48	608.2	52		-2	53
Highlands Region						
Goroka (1948-2019)	60	240.0	40		1	55
New Guinea Islands Region						
Momote (1949-2019)	47	907.2	53		-1	48
Kavieng (1916-2019)	48	719.8	52		-2	49
Southern Region						
Misima (1917-2019)	86	573.5	14		36	73
Port Moresby (1875-2019)	34	118.8	66		7	55

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region							
Madang (1944-2019)	54	630.9	33	816.7	13	20	51
Nadzab (1973-2019)	32	274.0	33	373.0	35	-3	9
Wewak (1894-2019)	41	558.9	36	695.9	23	3	46
Vanimo (1918-2019)	34	578.7	30	687.7	36	-3	8
Highlands Region							
Goroka (1948-2019)	46	211.0	28	277.8	26	3	41
New Guinea Islands Region							
Momote (1949-2019)	27	798.1	38	1041.6	35	0	29
Kavieng (1916-2019)	37	637.0	22	783.5	41	-1	33
Southern Region							
Misima (1917-2019)	54	473.4	41	709.0	5	30	46
Port Moresby (1875-2019)	44	86.2	31	154.6	25	3	37

TABLE 4: Seasonal Climate Outlooks using POAMA2 for May to July 2019

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Momase Region					
Madang	58	626.0	18	787.0	24
Nadzab	76	241.0	12	300.0	12
Wewak	58	575.0	24	667.0	18
New Guinea Islands Region					
Momote	33	796.0	42	1046.0	25
Kavieng	55	636.0	18	805.0	27
Southern Region					
Misima	91	453.0	5	622.0	4
Port Moresby	88	90.0	5	151.0	7
Daru	5	222.0	90	394.0	5

Summary Statements

Rainfall for March 2019:

Below normal rainfall recorded at Wewak and Kavieng, normal rainfall recorded at Nadzab, Momote and Misima. Above normal rainfall was recorded at Port Moresby and Vanimo.

Accumulated rainfall for January to March 2019, including outlook verification:

Normal rainfall recorded at Momote and Wewak whilst above normal rainfall was recorded for Nadzab, Port Moresby and Vanimo.

Forecast was consistent at Nadzab and Vanimo, near consistent at Momote and Wewak and inconsistent at Port Moresby.

Three months totals were not available for Goroka, Kavieng, Madang and Misima

Outlooks for May to July 2019:

1. SCOPIC:

Nadzab and Vanimo – The outlook offers little guidance as the chances of above normal, normal and below normal are similar.

Goroka, Madang, Misima – The outlook shows below normal as the most likely outcome, with normal the next most likely outcome. Above normal is the least likely outcome.

Kavieng – The outlook shows above normal as the most likely outcome with below normal the next most likely outcome. Normal is the least likely outcome

Momote – The outlook shows a near- equal likelihood of above normal and normal rainfall. Below normal is the least likely.

Confidence range from very low to very high

2. POAMA:

POAMA model favours normal rainfall for Daru and Momote and below normal rainfall for rest of the monitoring stations.

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:	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate	March 2019				

Bulletin					
EAR Watch					
Monthly Climate Briefing					
Ocean Bulletin					
Total					