Pacific Islands - Online Climate Outlook Forum (OCOF) No. 138

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Dec-2018	Jan-2019	Feb-2019				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2019)	352.0	303.0	596.0	232.2	335.0	267.1	**71/71**
Nadzab (1973-2019)	217.0	343.6	179.6	104.1	187.4	152.5	28/45
Wewak (1894-2019)	119.6	189.0	126.8	103.7	140.7	117.8	36/63
Vanimo (1918-2019)	250.0	425.8	305.0	208.4	317.3	270.2	42/65
Highlands Region							
Goroka (1948-2019)	286.8	196.8		195.3	267.7	232.5	
New Guinea Islands Region							
Momote (1949-2019)	350.0	282.9	167.6	200.9	303.5	233.5	13/63
Kavieng (1916-2019)	344.2	213.6		226.2	303.3	261.0	
Southern Region							
Misima (1917-2019)	303.6	208.8		208.2	341.7	274.6	
Port Moresby (1875-2019)	122.8	593.4	64.8	129.3	220.3	170.2	**6/131**

TABLE 2: Three-month Rainfall for December 2018 to February 2019

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities* based on NINO3.4 September-October 2018				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Momase Region											
Madang (1944-2019)	1251.0	Above normal	926.2	1103.8	1014.7	54/69	13	46	41	10	Near-consistent
Nadzab (1973-2019)	740.2	Above normal	423.8	510.0	489.0	**43/43**	26	31	43	3	Consistent
Wewak (1894-2019)	435.4	Normal	361.8	460.2	412.0	38/62	41	31	28	3	Near-consistent
Vanimo (1918-2019)	980.8	Above normal	718.6	918.0	808.2	43/58	31	36	33	-3	Near-consistent
Highlands Region											
Goroka (1948-2019)			634.4	743.0	702.0		36	27	37	-2	
New Guinea Islands Region											
Momote (1949-2019)	800.5	Normal	758.8	915.4	819.2	29/62	28	36	36	0	Near-consistent
Kavieng (1917-2019)			841.1	989.9	931.3		15	45	40	10	
Southern Region											
Misima (1917-2019)			676.7	877.7	766.5		39	36	25	1	
Port Moresby (1875-2019)	781.0	Above normal	421.5	558.8	468.6	**122/127**	47	34	19	12	Inconsistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for April to June 2019

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

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2019)	61	1010.4	39		4	59
Nadzab(1973-2019)	50	322.3	50		-3	31
Wewak (1894-2019)	50	642.4	50		-2	21
Vanimo (1918-2019)	48	653.0	52		-2	51
Highlands Region						
Goroka (1948-2019)	47	397.2	53		-2	48
New Guinea Islands Region						
Momote (1949-2019)	51	833.1	49		-2	45
Kavieng (1916-2019)	46	796.1	54		-1	55
Southern Region						
Misima (1917-2019)	64	743.1	36		11	62
Port Moresby (1875-2019)	66	244.3	34		13	64

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)	43	902.7	39	1075.3	18	9	43
Nadzab (1973-2019)	35	270.7	29	350.3	36	-3	26
Wewak (1894-2019)	37	570.2	30	671.4	33	-1	39
Vanimo (1918-2019)	31	586.5	36	739.8	33	-2	26
Highlands Region							
Goroka (1948-2019)	34	333.0	32	425.3	34	-3	17
New Guinea Islands Region							
Momote (1949-2019)	38	710.8	27	897.1	35	-1	37
Kavieng (1916-2019)	29	697.4	33	889.1	38	0	20
Southern Region							
Misima (1917-2019)	48	610.6	39	883.3	13	18	46
Port Moresby (1875-2019)	51	195.4	27	288.9	22	16	47

TABLE 4: Seasonal Climate Outlooks using POAMA2 for April to June 2019

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Momase Region					
Madang	64	878.0	12	1091.0	24
Nadzab	67	249.0	12	342.0	21
Wewak	58	560.0	5	671.0	37
New Guinea Islands Region					
Momote	49	703.0	18	860.0	33
Kavieng	52	689.0	6	838.0	42
Southern Region					
Misima	91	612.0	5	823.0	4
Port Moresby	88	189.0	5	294.0	7
Daru	65	548.0	30	816.0	5

Summary Statements

Rainfall for February 2019:

Rainfall was below-normal at Port Moresby and Momote, normal at Nadzab, Wewak and Vanimo and above normal at Madang. Madang recorded its highest February rainfall on record, while Port Moresby recorded its sixth-driest February on record. At the time of compiling this publication, no reports of February rainfall were received from Goroka, Kavieng and Misima.

Accumulated rainfall for December 2018 to February 2019, including outlook verification:

Normal rainfall was received at Wewak and Momote, and above normal occurred at all other monitoring stations. Port Moresby recorded its sixth-wettest December – February on record, mainly due to record-high January rainfall.

The outlook was consistent at Nadzab, inconsistent at Port Moresby and near-consistent at all other stations.

Three months total was not available for Misima, Kavieng and Goroka.

Outlooks for April to June 2019:

1. **SCOPIC:**

Port Moresby: The outlook favours below normal rainfall.

Madang and Misima: The outlook shows below normal as the most likely outcome, normal the next most likely and above normal is the least likely.

Nadzab, Wewak, Vanimo, Momote, Kavieng and Goroka: The outlook offers little guidance, as the chances of above normal, normal and below normal are similar.

Confidence ranges from very low to good.

2. **POAMA:**

The rainfall outlook favours below normal across the country.

NB: The X LEPS % score has been categorised as follows:

Very Low: X < 0.0 Low: 0 ≤ X < 5 Moderate 5 ≤ X < 10 Good: 10 ≤ X < 15 High: 15≤ X < 25

Very High: 25 ≤X < 35 Exceptional: X ≥ 35

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

Country	Date: February 2019	Stakeholder	Total Number of Participants	Number of male	Number of female
PNG	CREWS PNG Inception Workshop	All key stakeholders	38	29	9
	Climate Bulletin				
	EAR Watch				
	Monthly Climate Briefing				
	Ocean Bulletin				