Pacific Islands - Online Climate Outlook Forum (OCOF) No. 149

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Nov-2019	Dec-2019	Jan-2020				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2020)	294.2	296.4	329.6	274.8	377.7	336.6	34/72
Nadzab (1973-2020)	90.0	90.2	186.4	137.8	182.5	155.6	33/46
Wewak (1956-2020)	319.6	165.8	239.4	110.2	159.2	135.1	**63/65**
Vanimo (1918-2020)	156.0	271.0	209.0	214.8	342.5	285.3	26/69
Highlands Region							
Goroka (1948-2020)	154.4	154.0	288.8	198.2	266.6	226.0	41/58
New Guinea Islands Region							
Momote (1949-2020)	294.2	240.6	306.0	245.6	319.3	280.0	39/64
Kavieng (1916-2020)	557.4	206.4	228.2	264.6	359.9	319.7	23/89
Southern Region							
Misima (1917-2020)		238.2	298.8	197.1	308.4	268.0	55/92
Port Moresby (1875-2020)	87.8	0.8	199.4	148.0	235.0	193.6	81/132

TABLE 2: Three-month Rainfall for November 2019 to January 2020

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 August-September 2019				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Momase Region											
Madang (1944-2020)	920.2	Below normal	960.0	1127.2	1038.5	18/71	32	34	34	-1	Near-consistent
Nadzab (1973-2020)	366.6	Below normal	381.5	477.9	410.8	15/45	33	33	34	-3	Near-consistent
Wewak (1956-2020)	724.8	Above normal	439.8	545.4	480.6	**60/62**	35	36	29	9	Near-consistent
Vanimo (1918-2020)	636.0	Below normal	674.9	854.8	737.6	20/61	34	33	33	0	Near-consistent
Highlands Region											
Goroka (1948-2020)	597.2	Normal	524.7	641.9	588.0	27/50	33	34	33	-2	Near-consistent
New Guinea Islands Region											
Momote (1949-2020)	840.8	Normal	734.2	898.3	830.0	34/63	32	34	34	0	Near-consistent
Kavieng (1917-2020)	992.0	Above normal	777.0	949.9	848.6	63/87	32	34	34	-1	Near-consistent
Southern Region											
Misima (1917-2020)			602.0	752.0	672.6		35	33	32	3	
Port Moresby (1875-2020)	288.0	Below normal	344.1	476.6	402.8	35/120	36	36	28	19	Near-consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for Marchto May2020

Predictor and Period used: NINO3.4 for December 2019to January 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2020)	54	1131.8	46		0	60
Nadzab(1973-2020)	48	387.5	52		-2	48
Wewak (1956-2020)	54	595.5	46		1	65
Vanimo (1918-2020)	50	720.1	50		-2	24
Highlands Region						
Goroka (1948-2020)	43	550.0	57		3	56
New Guinea Islands Region						
Momote (1949-2020)	48	833.6	52		-1	50
Kavieng (1916-2020)	49	870.3	51		-2	48
Southern Region						
Misima (1917-2020)	73	781.8	27		32	71
Port Moresby (1875-2020)	56	430.0	44		2	54

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 (1944-2020)	34	999.3	34	1203.0	32	-2	21
Nadzab (1973-2020)	29	359.5	35	428.7	36	-1	7
Wewak (1956-2020)	40	511.5	26	644.9	34	1	42
Vanimo (1918-2020)	33	666.5	31	839.5	36	-2	39
Highlands Region							
Goroka (1948-2020)	28	491.5	30	597.6	42	5	32
New Guinea Islands Region							
Momote (1949-2020)	36	745.0	29	928.5	35	-2	31
Kavieng (1916-2020)	29	798.5	37	947.0	34	-1	37
Southern Region							
Misima (1917-2020)	46	688.8	36	960.8	18	19	49
Port Moresby (1875-2020)	42	364.6	33	479.7	25	10	49

TABLE 4: Seasonal Climate Outlooks using POAMA2 for Marchto May 2020

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Momase Region					
Madang	52	1002.0	12	1201.0	36
Nadzab	64	298.0	12	409.0	24
Wewak	55	508.0	9	630.0	36
New Guinea Islands Region					
Momote	45	698.0	19	854.0	36
Kavieng	39	769.0	22	998.0	39
Southern Region					
Misima	88	665.0	7	941.0	5
Port Moresby	70	327.0	5	498.0	25
Daru	5	828.0	80	939.0	15

Summary Statements

Rainfall for January 2020:

Rainfall was above-normal at Nadzab, Wewak & Goroka, below-normal at Vanimo and Kavieng, and normal at the rest of the monitoring stations. Wewak recorded its third highest rainfall for January in 65 years of record.

Accumulated rainfall for November 2019 to January 2020, including outlook verification:

Below normal rainfall was recorded in the Momase Region and at Port Moresby, whilst normal rainfall was recorded at Goroka and Momote. Above normal rainfall was received at Wewak and Kavieng.

The outlook issued in October was near-consistent at all locations.

Wewak had its third wettest November-January period in 62 years of record.

A three-month total was not available for Misima station.

Outlooks for March to May 2020:

1. **SCOPIC:**
   Wewak and Southern Region: The outlook shows below normal rainfall as the most likely outcome with normal the next most likely. Above normal is the least likely except for Wewak.

   Goroka: The outlook shows above-normal as the most likely with normal the next most likely. Below-normal is the least likely.

NGI region, Momase except Wewak: The outlook offers little guidance as the chances of above normal, normal and below normal are similar (Climatology).

Confidence ranges from very low to good.

2. **POAMA:**
   Daru: The outlook favours normal rainfall.

   Kavieng: The outlook for March-May 2020 is mixed, with similar chances for below normal and above normal totals; normal is the least likely outcome.

   Remaining Sites: The outlook favours below-normal rainfall.

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

Product	Date: January 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	Nil				
EAR Watch	Nil				
Monthly Climate Briefing	Nil				
Ocean Bulletin	N/A				
		Total			