

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 150

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Dec-2019	Jan-2020	Feb-2020				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2020)	296.4	329.6	209.4	233.5	343.1	268.7	13/72
Nadzab (1973-2020)	90.2	186.4	169.6	107.1	186.8	153.0	26/46
Wewak (1956-2020)	165.8	239.4	66.2	104.0	138.7	117.0	8/64
Vanimo (1918-2020)	271.0	209.6	140.8	211.3	314.4	276.0	8/66
Highlands Region							
Goroka (1948-2020)	154.0	288.8	256.8	194.0	267.2	228.0	34/57
New Guinea Islands Region							
Momote (1949-2020)	240.6	306.0	213.2	199.2	300.7	231.0	27/64
Kavieng (1916-2020)	206.4	228.2	189.6	225.9	302.4	258.5	24/89
Southern Region							
Misima (1917-2020)	238.2	298.8	197.0	206.6	338.0	271.2	27/96
Port Moresby (1875-2020)	0.8	199.4	79.0	125.8	222.0	167.8	12/132

TABLE 2: Three-month Rainfall for December 2019 to February 2020

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 September-October 2019				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Momase Region</i>											
Madang (1944-2020)	835.4	Below normal	941.4	1112.7	1025.8	15/71	21	40	39	9	Near-consistent
Nadzab (1973-2020)	446.2	Normal	430.5	521.7	493.0	17/45	30	33	37	4	Near-consistent
Wewak (1956-2020)	471.4	Above normal	362.5	459.6	413.2	45/63	37	34	29	3	Inconsistent
Vanimu (1918-2020)	621.4	Below normal	739.4	921.2	812.0	9/60	34	32	34	-3	Near-consistent
<i>Highlands Region</i>											
Goroka (1948-2020)	699.6	Normal	634.4	743.0	702.0	26/51	34	31	35	-2	Near-consistent
<i>New Guinea Islands Region</i>											
Momote (1949-2020)	759.8	Normal	759.2	902.9	816.1	22/63	30	36	34	0	Consistent
Kavieng (1917-2020)	624.2	Below normal	837.3	970.9	899.8	12/89	22	39	39	10	Near-consistent
<i>Southern Region</i>											
Misima (1917-2020)	734.0	Normal	663.1	879.7	764.0	36/90	36	35	29	1	Near-consistent
Port Moresby (1875-2020)	279.2	Below normal	442.0	596.7	498.0	8/128	38	33	29	6	Consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for April to June 2020

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

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2020)	58	1010.4	42		4	59
Nadzab(1973-2020)	48	324.6	52		-2	37
Wewak (1894-2020)	50	641.6	50		-2	46
Vanimo (1918-2020)	48	652.9	52		-2	52
Highlands Region						
Goroka (1948-2020)	48	393.0	52		-2	49
New Guinea Islands Region						
Momote (1949-2020)	51	850.9	49		-2	37
Kavieng (1916-2020)	48	807.6	52		0	56
Southern Region						
Misima (1917-2020)	61	741.6	39		11	61
Port Moresby (1875-2020)	61	249.6	39		11	63

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)	41	902.7	38	1075.3	21	9	43
Nadzab (1973-2020)	34	271.4	31	349.2	35	-3	26
Wewak (1894-2020)	37	564.4	30	671.2	33	-1	38
Vanimo (1918-2020)	33	579.9	34	739.0	33	-2	19
Highlands Region							
Goroka (1948-2020)	36	329.0	31	424.0	33	-2	27
New Guinea Islands Region							
Momote (1949-2020)	37	716.5	27	903.0	36	-1	33
Kavieng (1916-2020)	30	701.1	35	899.2	35	-1	36
Southern Region							
Misima (1917-2020)	43	609.0	41	877.0	16	17	46
Port Moresby (1875-2020)	44	195.6	28	290.4	28	13	40

TABLE 4: Seasonal Climate Outlooks using POAMA2 for April to June 2020

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
<i>Momase Region</i>					
Madang	49	878.0	15	1091.0	36
Nadzab	61	249.0	6	342.0	33
Wewak	61	560.0	9	671.0	30
<i>New Guinea Islands Region</i>					
Momote	39	703.0	15	860.0	46
Kavieng	36	689.0	12	838.0	52
<i>Southern Region</i>					
Misima	91	612.0	5	823.0	4
Port Moresby	70	189.0	9	294.0	21
Daru	5	548.0	83	816.0	12

Summary Statements

Rainfall for February 2020:

Rainfall was below normal at most of monitoring stations, with normal rainfall at Nadzab, Goroka and Momote. Port Moresby had its 12th driest February in 132 years of record.

Accumulated rainfall for December 2019 to February 2020, including outlook verification:

Rainfall was generally normal to below normal for the past season, apart from Wewak where above normal was received.

The outlook issued in November was consistent at Momote and Port Moresby; inconsistent at Wewak; and near-consistent at the remaining locations.

Port Moresby had its 8th driest December-February period on record.

Outlooks for April to June 2020:

1. SCOPIC:

Port Moresby: The outlook shows below normal rainfall as the most likely outcome with normal and above-normal the least likely.

Madang and Misima: The outlook shows a near-equal likelihood of below-normal and normal rainfall. Above-normal is the least likely.

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

Confidence ranges from very low to high.

2. POAMA:

The outlook favours below-normal rainfall for the Momase and Southern Regions, except for Daru where normal rainfall is favoured. For the NGI Region, above normal rainfall is the favoured or most likely outcome.

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

Product	Date: February 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	February 13	Govt: National Disaster Centre, Dept. of Agriculture and Livestock, Climate Change Development Authority, National Agriculture Research Institute, Dept. of Transport, Dept. of Mineral Policy and Geohazard Management, Dept. of Works, PNG Fire, National Maritime Safety Authority, Civil Aviation Safety Authority, PNG Forest Authority, National Capital District Commission, PNG Customs Authority, National Dept. of Health, Dept. of Education, Centre for Environmental Protection Authority. UN agencies: UNDP, IOM, UNOCH. Private: PNG Air Services Limited, ExxonMobil, Ok Tedi Mining Ltd, PNG Power Ltd, Global Construction Ltd, Datec, Interoil, Air Niugini, Bank South Pacific, PNG Ports, Media and Universities.	196	146	50
EAR Watch	February 20	Govt: National Disaster Centre, Dept. of Transport, National Agriculture Research Institute, Dept. of Agriculture and Livestock, Provincial Disaster Coordinators, Civil Aviation Safety Authority, Climate Change Development Authority, Dept. of Mineral Policy and Geohazard Managment, PNG DFAT, Centre of Environmental Protection Authority, National Capital District Commision, Dept. of Education. UN Agencies : UNDP, FAO, IOM, Oxfam. NGOs : Childfund, WVI, PNGRC. Private: Pacific Hydo Services, PNG Power, Ok Tedi Mining Ltd, Media. Aus DFAT and Universities	252	154	98
Monthly Disaster Management Team	February 28	Govt : National Disaster Centre, National Weather Service UN : Resident Coordinator's Office, IOM, UNDP, UNICEF, FAO, WHO, UNWomen, UNFPA, OHCHR, UNDSS NGO : WVI, MSF, ICRC, IFRC Donor : Aust DFAT, EU, JICA, NZHC (MFAT), USAID	29	20	9
Ocean Bulletin					
Total			477	320	157