

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 162

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Dec-2020	Jan-2021	Feb-2021				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2021)	274.8	106.2	274.2	231.0	342.8	267.2	38/73
Nadzab (1973-2021)	185.8	128.0	234.4	110.0	186.2	155.8	39/47
Wewak (1956-2021)	116.6	145.2	319.0	103.5	136.8	117.8	65/65
Vanimo (1918-2021)	299.2	250.0	793.6	206.9	311.5	270.2	66/67
Highlands Region							
Goroka (1948-2021)	256.0	133.4	372.0	194.7	266.5	232.5	55/58
New Guinea Islands Region							
Momote (1949-2021)	234.0	91.2	408.2	200.3	298.0	226.0	60/65
Kavieng (1916-2021)	128.0	116.0		220.2	301.6	256.0	
Southern Region							
Misima (1917-2021)	134.0	163.0	208.4	200.2	335.7	266.0	30/97
Port Moresby (1875-2021)	136.6	273.8	281.0	125.8	220.0	167.8	110/132

TABLE 2: Three-month Rainfall for December 2020 to February 2021

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 September-October 2020				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Momase Region</i>											
Madang (1944-2021)	655.2	Below normal	936.0	1111.5	1023.4	4/72	53	22	25	9	Consistent
Nadzab (1973-2021)	548.2	Above normal	437.3	515.9	489.0	34/46	43	36	21	4	Inconsistent
Wewak (1894-2021)	580.8	Above normal	363.3	460.5	414.4	60/64	24	37	39	2	Consistent
Vanimo (1918-2021)	1342.8	Above normal	735.8	918.0	810.3	60/61	35	32	33	-3	Inconsistent
<i>Highlands Region</i>											
Goroka (1948-2021)	761.4	Above normal	636.3	740.9	700.8	41/52	30	36	34	-2	Near-consistent
<i>New Guinea Islands Region</i>											
Momote (1949-2021)	733.4	Below normal	759.5	890.5	813.0	18/64	40	28	32	0	Consistent
Kavieng (1917-2021)			835.5	970.0	884.7		50	23	27	6	
<i>Southern Region</i>											
Misima (1917-2021)	505.4	Below normal	663.9	877.1	761.6	7/91	27	31	42	2	Inconsistent
Port Moresby (1875-2021)	691.4	Above normal	440.8	596.0	496.0	111/128	21	37	42	6	Consistent

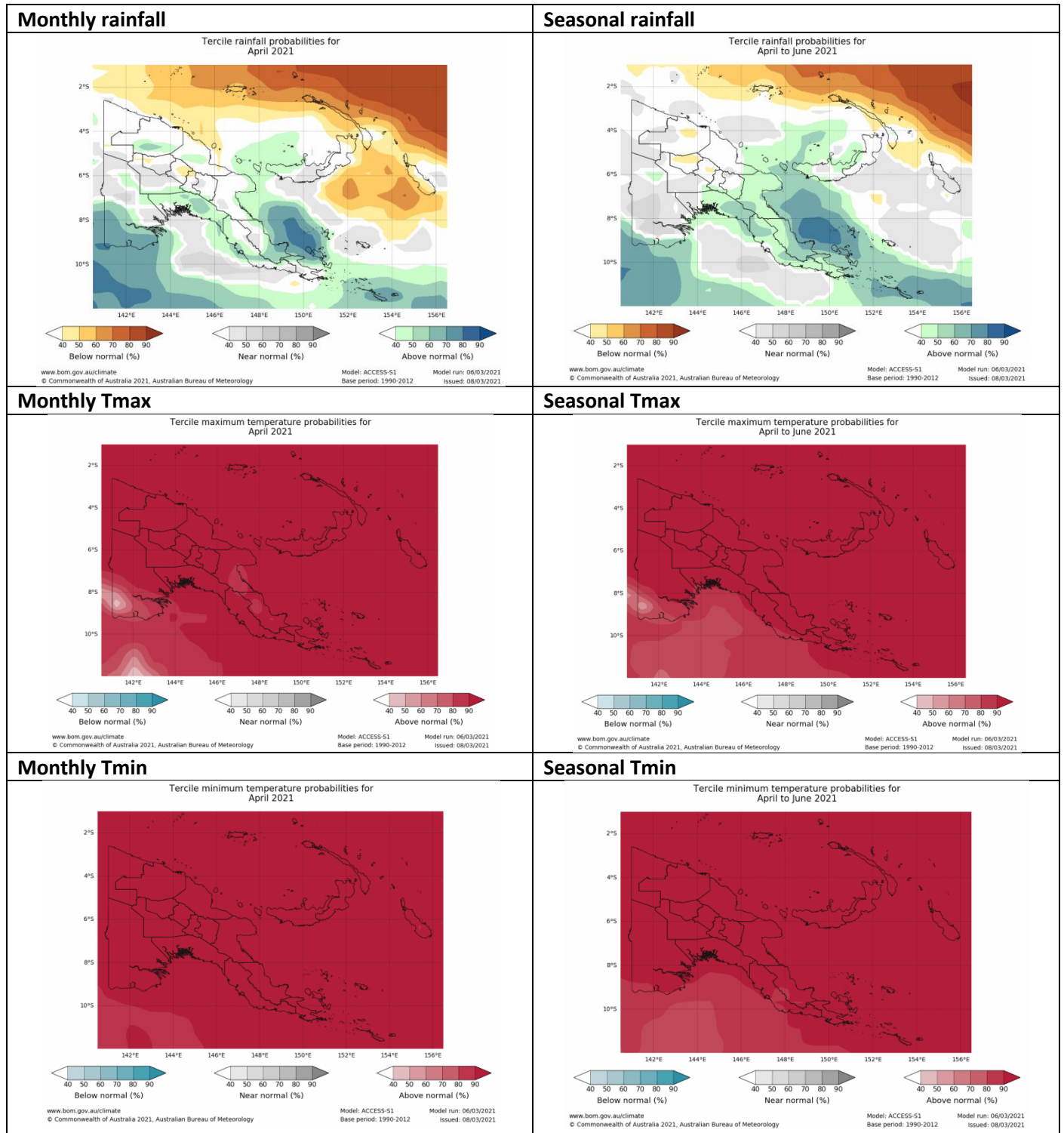
TABLE 3: Seasonal Climate Outlooks using SCOPIC for April to June 2021

Predictor and Period used: NINO3.4 for January to February 2021

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2021)	40	1007.2	60		4	61
Nadzab(1973-2021)	54	329.1	46		-1	55
Wewak (1894-2021)	49	641.6	51		-2	46
Vanimo (1918-2021)	53	652.9	47		-2	52
Highlands Region						
Goroka (1948-2021)	49	391.5	51		-2	46
New Guinea Islands Region						
Momote (1949-2021)	49	833.1	51		-2	44
Kavieng (1916-2021)	54	807.6	46		0	56
Southern Region						
Misima (1917-2021)	34	739.6	66		11	62
Port Moresby (1875-2021)	35	250.1	65		10	60

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 (1944-2021)	22	904.9	27	1073.7	51	9	42
Nadzab (1973-2021)	32	271.6	38	347.9	30	-3	30
Wewak (1894-2021)	26	564.4	40	671.2	34	-1	38
Vanimo (1918-2021)	34	579.9	32	739.0	34	-2	20
Highlands Region							
Goroka (1948-2021)	32	330.5	34	423.5	34	-2	18
New Guinea Islands Region							
Momote (1949-2021)	30	705.0	40	899.1	30	-1	38
Kavieng (1916-2021)	39	701.1	31	899.2	30	0	36
Southern Region							
Misima (1917-2021)	18	596.3	28	873.3	54	17	47
Port Moresby (1875-2021)	13	195.7	45	294.7	42	12	29

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for April to June 2021



Summary Statements

Rainfall for February 2021:

Above normal rainfall was received across the country, except for Madang and Misima which received normal rainfall. Wewak and Vanimo experienced their wettest and second wettest February respectively on record.

Accumulated rainfall for December 2020 to February 2021, including outlook verification:

Accumulated rainfall was a mixture of above normal and below normal totals, with no recordings of normal. Madang recorded its fourth driest December to February period, while Vanimo recorded its second wettest.

The forecast issued in November was verified consistent at four sites, near-consistent at one site and inconsistent at three sites.

Outlooks for April to June 2021:

1. SCOPIC:

Madang and Misima: The outlook favours above normal rainfall.

Wewak and Momote: Normal rainfall is the most likely outcome, with above normal the next most likely. Below normal is the least likely.

Port Moresby: The outlook shows near-equal chances of normal and above normal rainfall; below normal is the least likely.

Other stations: The outlook offers little guidance as the chances of above normal, normal and below normal are similar.

Confidence ranges from very low to high.

2. ACCESS-S:

Monthly rainfall:

New Guinea Islands region: Below normal rainfall in April is favoured for most areas, except for the western part of West New Britain where above normal rainfall is the most likely outcome.

Momase region: The outlook offers little guidance.

Highlands region: The outlook shows near-normal rainfall as the most likely outcome.

Southern region: The outlook favours above normal rainfall.

Monthly maximum and minimum temperatures:

Above normal temperatures are favoured across the country in April.

Seasonal rainfall:

New Guinea Islands Region: Below normal rainfall is favoured for the northern parts over April to June, while above normal rainfall is the most likely in West New Britain.

Momase Region: Little guidance for the region except for Morobe Province where above normal rainfall is the most likely outcome.

Highlands region: Near-normal rainfall is the most likely for the next season.

Southern Region: Above normal rainfall is favoured for the April to June period.

Seasonal maximum and minimum temperature:

Above normal temperatures are favoured across the country for April to June.

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: February 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	8 th Feb	MRA, UPNG, Ok Tedi, NMSA, PNG Power, Dept. Of Transport, PAU, WVI, NWS, NDC, Dept. Of Health, CASAPNG, MRA, NCDC, The National, Telikom PNG, DWU, Kina Bank, PNGFA, NARI, BSP, PNGCIR, DFAT, Customs, IOM, DPM, FM100, PNGFM, UNDP, Dept. Of Works. Water PNG, CIC, Dept. of Education, FAO, SMEC, ISS-Shipping, OCCD, Dept. Of Planning, AusAid, UOG,	144	113	31
EAR Watch	15th Feb	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 Management, PNG DFAT, Centre of Environmental Protection Authority, National Capital District Commission, Dept. of Education. UN Agencies : UNDP, FAO, IOM, Oxfam. NGOs : Childfund, WVI, PNGRC. Private: Pacific Hydro Services, PNG Power, Ok Tedi Mining Ltd, Media. Aus DFAT, DAL Provincial Officers	131	82	49
DMT Meeting	24th Feb	UNDP, IOM, UNICEF, FAO, UNFPA, WHO, UN Women, WVI, Child Fund, IFRC, ICRC, UNRCO, MAF, Australian High Com, NZHS. NWS, NDC, Oxfam	35	20	15
Total			310	215	95