

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 165

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Mar-2021	Apr-2021	May-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2021)	415.4	426.2		299.7	409.8	333.8	
Nadzab (1973-2021)	107.2	107.4	68.8	66.6	103.6	75.0	17/47
Wewak (1956-2021)	185.8	251.4	305.2	178.1	272.2	220.2	53/66
Vanimo (1918-2021)	141.6	252.0	257.6	166.3	253.6	205.2	43/68
Highlands Region							
Goroka (1948-2021)	242.8	209.4	118.4	88.5	140.3	106.9	32/57
New Guinea Islands Region							
Momote (1949-2021)	225.2	190.4	321.4	197.1	256.7	235.7	54/67
Kavieng (1916-2021)	230.8	390.0	324.4	198.0	291.6	244.5	72/91
Southern Region							
Misima (1917-2021)	387.6	273.0	222.0	182.8	311.6	249.0	40/96
Port Moresby (1875-2021)	283.8	106.0	18.8	33.0	73.6	51.0	35/129

TABLE 2: Three-month Rainfall for March to May 2021

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 Dec 2020-Jan 2021				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Momase Region											
Madang (1944-2021)			1000.2	1202.2	1130.2		34	31	35	-2	
Nadzab (1973-2021)	283.4	Below normal	362.0	428.8	389.0	10/43	40	35	25	1	Consistent
Wewak (1956-2021)	742.4	Above normal	511.5	644.9	595.5	54/63	23	43	34	1	Near-consistent
Vanimo (1918-2021)	651.2	Below normal	666.5	839.5	720.1	24/64	33	37	30	-2	Near-consistent
Highlands Region											
Goroka (1948-2021)	570.6	Normal	491.8	600.8	553.5	29/55	42	37	21	5	Near-consistent
New Guinea Islands Region											
Momote (1949-2021)	737.0	Normal	736.0	928.3	830.3	22/64	32	37	31	-2	Consistent
Kavieng (1917-2021)	945.2	Normal	799.0	946.8	864.8	57/86	39	29	32	-1	Near-consistent
Southern Region											
Misima (1917-2021)	882.6	Normal	639.5	958.2	791.8	57/96	14	34	52	19	Near-consistent
Port Moresby (1875-2021)	408.6	Normal	364.8	487.3	432.0	66/124	19	36	45	8	Near-consistent

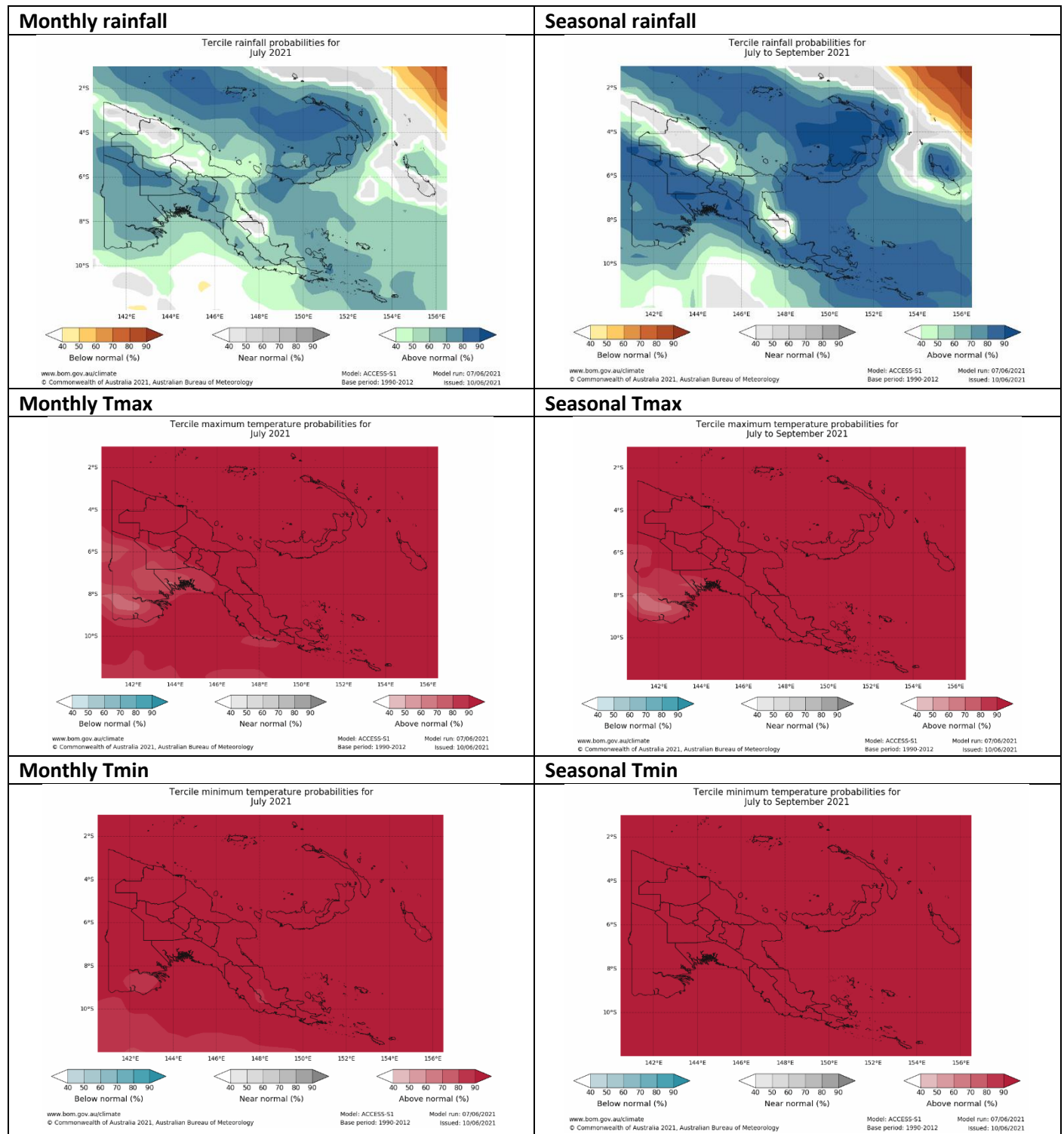
TABLE 3: Seasonal Climate Outlooks using SCOPIC for July to September 2021

Predictor and Period used: NINO3.4 for April to May 2021

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2021)	39	401.2	61		11	61
Nadzab(1973-2021)	48	396.0	52		-2	58
Wewak (1956-2021)	23	543.4	77		36	77
Vanimo (1918-2021)	53	505.8	47		-1	56
Highlands Region						
Goroka (1948-2021)	52	249.0	48		-2	51
New Guinea Islands Region						
Momote (1949-2021)	56	893.8	44		2	56
Kavieng (1916-2021)	52	608.6	48		-1	51
Southern Region						
Misima (1917-2021)	32	422.0	68		22	72
Port Moresby (1875-2021)	47	68.0	53		-1	49

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	321.2	33	468.2	45	16	47
Nadzab (1973-2021)	31	286.3	34	462.7	35	-3	7
Wewak (1956-2021)	14	468.0	38	589.0	48	23	53
Vanimo (1918-2021)	34	462.4	36	558.4	30	-2	44
Highlands Region							
Goroka (1948-2021)	34	205.0	34	289.3	32	-2	34
New Guinea Islands Region							
Momote (1949-2021)	37	745.2	34	1053.0	29	0	21
Kavieng (1916-2021)	36	512.5	32	725.4	32	-1	14
Southern Region							
Misima (1917-2021)	19	323.2	37	573.7	44	17	49
Port Moresby (1875-2021)	31	47.6	35	94.6	34	-1	18

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for July to September 2021



Summary Statements

Rainfall for May 2021:

May rainfall was generally normal to above normal across the country, except for Port Moresby which received below normal rainfall.

Madang's May rainfall was not available.

Accumulated rainfall for March to May 2021, including outlook verification:

Accumulated rainfall was below normal at Nadzab and Vanimo, and above normal rainfall at Wewak. Normal rainfall was received at the rest of the monitoring stations.

The forecast issued in February was verified as near-consistent at all stations, except for Nadzab and Momote, which had a consistent forecast. Confidence ranged from very low to high.

Outlooks for July to September 2021:

1. SCOPIC:

Madang, Wewak and Misima: Above normal rainfall is the most likely outcome, with normal the next most likely. Below normal is the least likely.

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

Confidence ranges from very low to high.

2. ACCESS-S:

Monthly rainfall:

Generally, above normal rainfall is favoured in July for the country. In parts of Sepik and Bougainville the outlook favours normal rainfall.

Monthly maximum and minimum temperature:

Above normal temperatures are favoured across the country in July.

Seasonal rainfall:

Generally, above normal rainfall is favoured across the country for the July to September period. In parts of Sepik, Madang and Oro, the outlook favours normal rainfall.

Seasonal maximum and minimum temperature:

Above normal temperatures are favoured across the country for the July to September period.

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: May 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	13th	National Disaster Centre, Climate Change Development Authority, Provincial Disaster Coordinators, Universities, NWS staff, Mining and Energy sector, Agriculture, Fisheries, Water PNG, Forestry, Tourism Promotion Authority, Education, Health, Aviation, Shipping, Transport, Banking institutions, World Vision, UNDP, AHC/DFAT, Customs and Immigration, National Maritime Safety Authority, Coffee and Copra industry, National Capital District Commission, Mineral Resource Authority, Media	145	103	42
EAR Watch	17th	National Disaster Centre, Climate Change Development Authority, Provincial Disaster Coordinators, Universities, BOM, SPREP, NWS staff, PNG Defence Force, Mining and Energy sector, Agriculture, Fisheries, Water PNG, Forestry, Tourism Promotion Authority, Education, Health, Aviation, Shipping, Transport, Banking institutions, World Vision, USAID, UNDP, IOM, AHC/DFAT, Customs and Immigration, National Maritime Safety Authority, Coffee and Copra industry, National Capital District Commission, Mineral Resource Authority, Media	138	80	58
Disaster Management Team meeting	27th	NDC, WHO, UNDP, UNRCO, NZHC, WVI, MSF, MAF, ICRC, IOM, NWS, UNDSS, UNAIDS, Caritas Australia, UNHCR, UNFPA, DFAT, UNICEF, UNFPA	30	16	14
Total			313	199	114