

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 164

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Feb-2021	Mar-2021	Apr-2021				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2021)	274.2	415.4	426.2	323.2	457.7	396.0	42/71
Nadzab (1973-2021)	234.4	107.2	107.4	87.8	144.7	103.8	26/46
Wewak (1956-2021)	319.0	185.8	251.4	161.1	232.2	186.4	49/64
Vanimo (1918-2021)	793.6	141.6	252.0	183.3	287.3	225.9	38/66
Highlands Region							
Goroka (1948-2021)	372.0	242.8	209.4	157.7	217.8	193.1	34/57
New Guinea Islands Region							
Momote (1949-2021)	408.2	225.2	190.4	238.4	304.6	276.9	14/65
Kavieng (1916-2021)	359.2	230.8	390.0	268.7	326.0	290.9	76/91
Southern Region							
Misima (1917-2021)	208.4	387.6	273.0	207.9	336.2	253.9	51/96
Port Moresby (1875-2021)	281.0	283.8	106.0	83.4	141.0	106.2	70/129

TABLE 2: Three-month Rainfall for February to April 2021

Station	Three-month Total	33%tile	67%tile	Median	Rank	SCOPIIC forecast probabilities based on NINO3.4 November-December 2020				Verification: Consistent, Near-consistent, Inconsistent?	
	Rainfall (mm)					B-N	N	A-N	LEPS		
<i>Momase Region</i>											
Madang (1944-2021)	1115.8	Normal	939.1	1145.8	1036.2	44/71	40	28	32	-1	Near-consistent
Nadzab (1973-2021)	449.0	Normal	397.6	512.9	457.7	18/44	45	26	29	2	Near-consistent
Wewak (1956-2021)	756.2	Above normal	433.9	519.7	475.9	61/63	26	40	34	-1	Near-consistent
Vanimo (1918-2021)	1187.2	Above normal	725.2	911.8	834.6	57/64	41	35	24	2	Inconsistent
<i>Highlands Region</i>											
Goroka (1948-2021)	824.2	Above normal	612.0	746.2	671.0	46/55	46	28	26	3	Inconsistent
<i>New Guinea Islands Region</i>											
Momote (1949-2021)	823.8	Normal	756.9	933.9	801.2	34/64	30	35	35	-1	Near-consistent
Kavieng (1917-2021)	980.0	Above normal	824.8	957.2	893.5	42/87	45	28	27	2	Inconsistent
<i>Southern Region</i>											
Misima (1917-2021)	869.0	Normal	710.7	946.6	827.2	52/95	21	25	54	11	Near-consistent
Port Moresby (1875-2021)	670.8	Above normal	467.6	587.8	531.7	112/127	17	36	47	10	Consistent

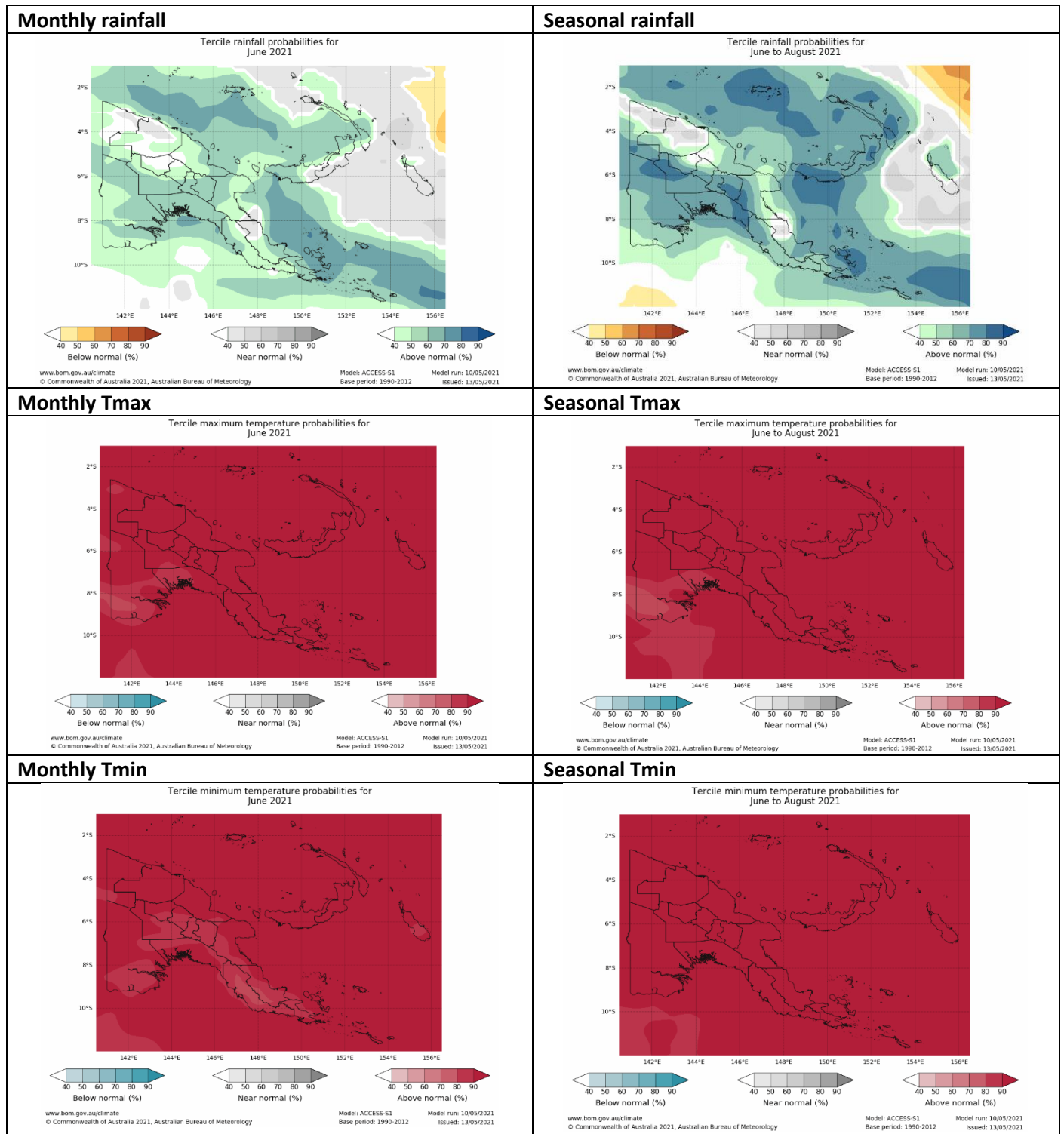
TABLE 3: Seasonal Climate Outlooks using SCOPIC for June to August 2021

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

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2021)	19	473.0	81		33	77
Nadzab(1973-2021)	52	329.0	48		-2	48
Wewak (1956-2021)	31	557.0	69		13	69
Vanimo (1918-2021)	56	560.2	44		0	55
Highlands Region						
Goroka (1948-2021)	47	191.0	53		-1	44
New Guinea Islands Region						
Momote (1949-2021)	54	960.9	46		0	55
Kavieng (1916-2021)	55	709.8	45		0	55
Southern Region						
Misima (1917-2021)	23	458.9	77		26	72
Port Moresby (1875-2021)	39	87.5	61		6	59

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)	9	403.2	36	546.9	55	28	54
Nadzab (1973-2020)	34	295.0	31	424.0	35	-3	15
Wewak (1956-2020)	17	481.8	34	616.5	49	12	42
Vanimo (1918-2020)	38	516.4	32	632.0	30	-1	22
Highlands Region							
Goroka (1948-2020)	29	169.8	36	244.4	35	-1	27
New Guinea Islands Region							
Momote (1949-2020)	42	812.0	28	1063.5	30	1	25
Kavieng (1916-2020)	35	587.8	38	787.2	27	-1	41
Southern Region							
Misima (1917-2020)	15	336.6	26	546.4	59	22	49
Port Moresby (1875-2020)	21	56.9	39	112.4	40	5	50

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



Summary Statements

Rainfall for April 2021:

April rainfall was generally normal across the country, except for Wewak and Kavieng which received above normal rainfall, and Momote where rainfall was below normal.

Accumulated rainfall for February to April 2021, including outlook verification:

Accumulated rainfall was generally above normal or normal across the country. Wewak recorded its third wettest February to April rainfall on record.

The forecast issued in January was verified as consistent in Port Moresby, inconsistent at Vanimo, Goroka and Kavieng, and Near-consistent at the remaining five sites.

Outlooks for June to August 2021:

1. SCOPIC:

Madang and Misima: The outlook favours above normal rainfall.

Wewak: Above normal is the most likely outcome, with normal the next most likely. Below normal is the least likely.

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

Port Moresby: The outlook shows a near-equal likelihood of above normal and normal rainfall. Below normal is the least likely.

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

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

Confidence ranges from very low to very high.

2. ACCESS-S:

Monthly rainfall:

Above normal rainfall is favoured in **June** for the country, except for parts of Sepik, Oro, New Britain and AROB where normal rainfall is most likely.

Monthly maximum and minimum temperature:

Above normal temperatures are favoured across the country in June.

Seasonal rainfall:

Above normal rainfall is favoured for the country for **June to August**, except for parts of Sepik, Oro and AROB where normal rainfall is most likely.

Seasonal maximum and minimum temperature:

Above normal temperatures are favoured across the country for June to August 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: April 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	9th	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	19th	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	22nd	National Disaster Centre, NWS, FAO, AHC, UNDP, UNHCR, UNDSS, UNRCO, STC, MSF, ICRC, Child Fund, UN Women, UNICEF, IOM	27	17	10
Monthly Climate Briefing	N/A				
Ocean Bulletin	N/A				
Total			310	200	110