

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 159

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Sep-2020	Oct-2020	Nov-2020				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2020)	211.6	479.2					
Nadzab (1973-2020)	156.4	103.0	71.2	80.4	116.8	90.7	12/47
Wewak (1956-2020)	214.2	280.4	350.8	154.6	236.6	197.5	61/63
Vanimo (1918-2020)	66.4	308.8	277.4	162.5	241.3	201.4	52/64
Highlands Region							
Goroka (1948-2020)	76.0	278.8	185.5	128.9	180.7	155.0	38/54
New Guinea Islands Region							
Momote (1949-2020)	188.0	382.2	190.6	194.2	292.0	252.0	21/67
Kavieng (1916-2020)	123.2	369.0	216.4	198.8	271.2	233.2	43/93
Southern Region							
Misima (1917-2020)	302.4	367.2	341.8	124.4	219.7	166.0	78/95
Port Moresby (1875-2020)	5.2	55.8	81.8	22.1	79.3	45.6	85/123

TABLE 2: Three-month Rainfall for September to November 2020

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 June-July 2020				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Momase Region</i>											
Madang (1944-2020)			612.9	828.5	690.2		23	45	32	31	
Nadzab (1973-2020)	330.6	Normal	239.5	340.3	285.2	28/45	26	38	36	15	Consistent
Wewak (1894-2020)	845.4	Above normal	528.3	666.1	589.1	57/61	22	40	38	19	Near-consistent
Vanimo (1918-2020)	652.6	Above normal	502.3	633.9	541.0	44/60	32	33	35	4	Consistent
<i>Highlands Region</i>											
Goroka (1948-2020)	540.3	Above normal	355.0	474.0	423.0	43/52	34	33	33	0	Near-consistent
<i>New Guinea Islands Region</i>											
Momote (1949-2020)	760.8	Normal	658.0	798.0	730.5	40/67	33	33	34	-2	Near-consistent
Kavieng (1917-2020)	708.6	Normal	554.7	780.5	684.2	54/91	33	33	34	-2	Near-consistent
<i>Southern Region</i>											
Misima (1917-2020)	1011.4	Above normal	485.6	791.0	676.0	81/94	27	39	34	20	Near-consistent
Port Moresby (1875-2020)	142.8	Normal	80.6	158.8	109.8	71/112	31	37	32	17	Consistent

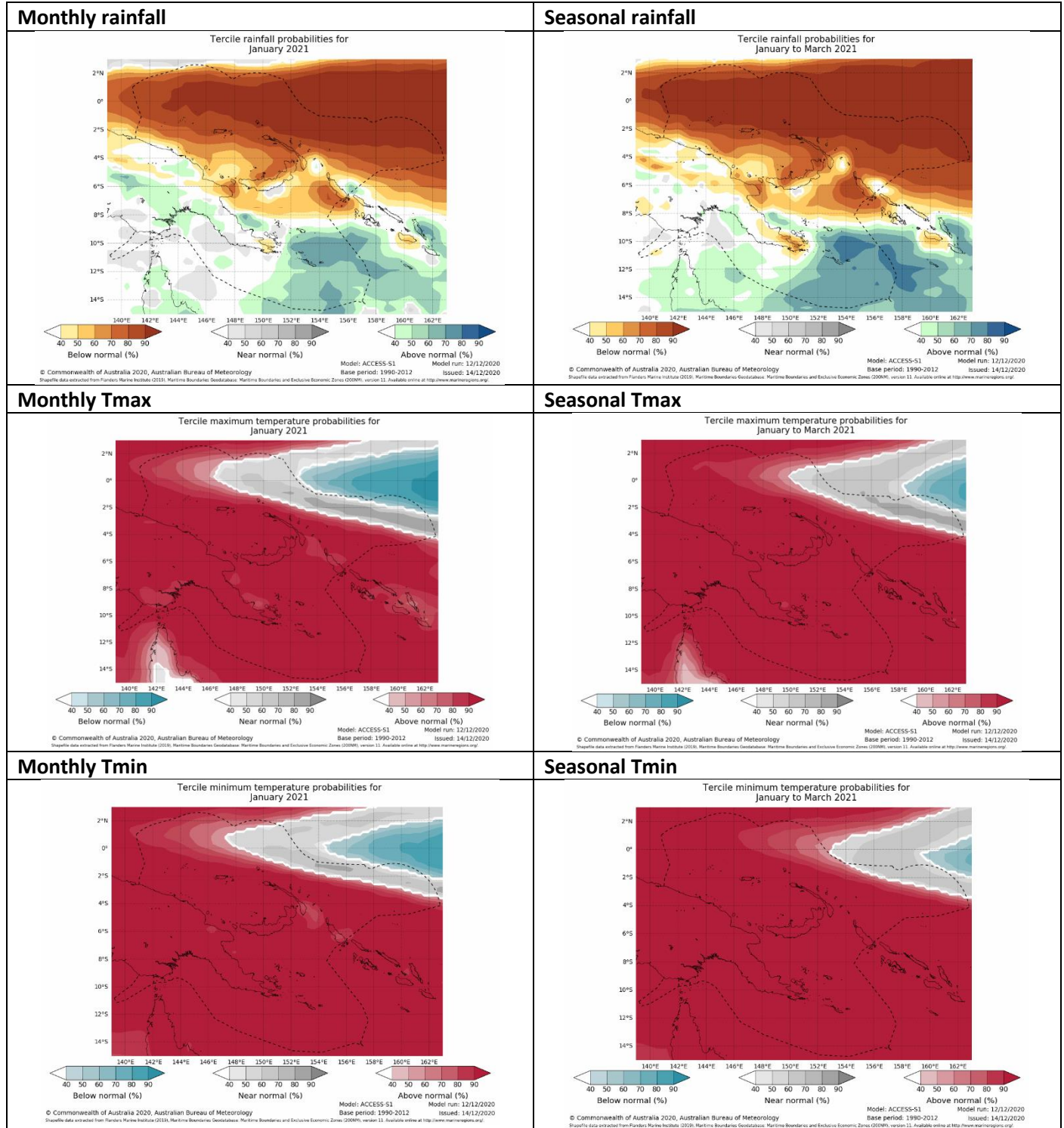
TABLE 3: Seasonal Climate Outlooks using SCOPIC for January to March 2021

Predictor and Period used: NINO3.4 for October to November 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2020)	72	975.8	28		13	63
Nadzab(1973-2020)	73	471.4	27		13	64
Wewak (1894-2020)	35	428.3	65		6	66
Vanimo (1918-2020)	62	876.4	38		3	58
Highlands Region						
Goroka (1948-2020)	64	709.8	36		5	64
New Guinea Islands Region						
Momote (1949-2020)	56	811.2	44		0	56
Kavieng (1916-2020)	64	927.5	36		5	57
Southern Region						
Misima (1917-2020)	35	787.9	65		6	59
Port Moresby (1875-2020)	40	607.8	60		2	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 (1944-2020)	54	901.2	20	1078.9	26	9	49
Nadzab (1973-2020)	52	436.7	27	533.3	21	10	49
Wewak (1894-2020)	21	368.4	34	453.2	45	4	42
Vanimo (1918-2020)	38	761.9	41	943.9	21	1	39
Highlands Region							
Goroka (1948-2020)	44	647.9	42	785.8	14	9	48
New Guinea Islands Region							
Momote (1949-2020)	39	765.2	38	923.0	23	2	31
Kavieng (1916-2020)	47	852.9	26	993.5	27	3	45
Southern Region							
Misima (1917-2020)	18	705.5	32	916.9	50	8	47
Port Moresby (1875-2020)	24	537.3	36	680.2	40	2	43

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for January to March 2021



Summary Statements

Rainfall for November 2020:

Rainfall was below normal at Nadzab and Momote, normal at Kavieng and above normal at all other monitoring stations.

Wewak recorded its third wettest November on record.

Accumulated rainfall for September to November 2020, including outlook verification:

Rainfall was normal to above normal throughout the country.

The forecast issued in August was consistent at Nadzab, Vanimo and Port Moresby, and near-consistent at remaining stations.

Outlooks for January to March 2021:

1. SCOPIIC:

Madang, Nadzab: The outlook favours below normal.

Kavieng: The outlook shows below normal rainfall as the most likely, with above normal and normal equally the next most likely.

Wewak, Misima, Port Moresby: The outlook for season shows above normal as the most likely outcome with normal the next most likely. Below normal is the least likely.

Goroka, Vanimo, Momote: The outlook for season shows a near-equal likelihood of below normal and normal rainfall. Above normal is the least likely.

Confidence ranges from low to moderate

2. ACCESS-S:

Monthly rainfall:

New Guinea Islands: Below normal rainfall is favoured in this region in **January**.

Momase & Highlands: Little guidance as chances of below normal, normal and above normal are similar, except for the Southern Highlands region where above normal rainfall is the most likely outcome.

Southern: Normal to above normal rainfall is favoured for the month of January in many areas, although with significant regions showing little guidance.

Monthly maximum and minimum temperatures:

Above normal temperatures are favoured across the country for **January**.

Seasonal rainfall:

Below normal is favoured over the northern half of the EEZ, including the New Guinea Islands and coastal areas of the Momase, as well as the southeast tip of the mainland. Above normal rainfall is favoured at Misima and Tagula Island, but for most other parts of the country there is little guidance for the coming season.

Seasonal maximum minimum temperatures:

Above normal temperatures are favoured across the country for **January to March**.

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: November 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
EAR Watch	12th November	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	140	91	49

		<p>Authority, National Capital District</p> <p>Commission, Dept. of Education. UN</p> <p>Agencies : UNDP, FAO, IOM, Oxfam.</p> <p>NGOs : Childfund, WVI, PNGRC.</p> <p>Private:</p> <p>Pacific Hydro Services, PNG Power, Ok</p> <p>Tedi Mining Ltd, Media. Aus DFAT, DAL Provincial Officers</p>			
CREWS Wokshop (Virtual)	19-20th Novmber	DAL, NDC, Red Cross, NWS, FAO, BoM, SPREP, WMO, RIMES, IOM, UNDP	25	12	13
DMT Meeting	26th November	<p>National Disaster Centre, National Weather Service, University of Papua New Guinea, Centre of Environmental Protection</p> <p>Authority, National Agriculture Research Institute, Department of Works, Dept. Of Mineral Policy and Geohazard Managment,</p>	13	7	6
Total			178	110	68