

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 157

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Jul-2020	Aug-2020	Sep-2020				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2020)	55.4	218.4	211.6	69.9	175.5	119.9	54/71
Nadzab (1973-2020)	171.6	148.0	156.4	56.6	133.2	104.6	37/46
Wewak (1956-2020)	104.4	230.0	214.2	145.1	207.8	180.4	44/64
Vanimo (1918-2020)	96.8	263.0	66.4	127.5	192.9	153.7	8/65
Highlands Region							
Goroka (1948-2020)	11.0	52.4	76.0	68.0	123.0	96.6	21/58
New Guinea Islands Region							
Momote (1949-2020)	210.6	292.6	188.0	199.7	276.7	248.3	20/67
Kavieng (1916-2020)	182.6	302.8	123.2	141.5	208.4	168.8	25/93
Southern Region							
Misima (1917-2020)	140.2	175.6	302.4	100.1	252.9	182.4	70/95
Port Moresby (1875-2020)	49.0	20.4	5.2	10.7	31.7	21.0	22/123

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

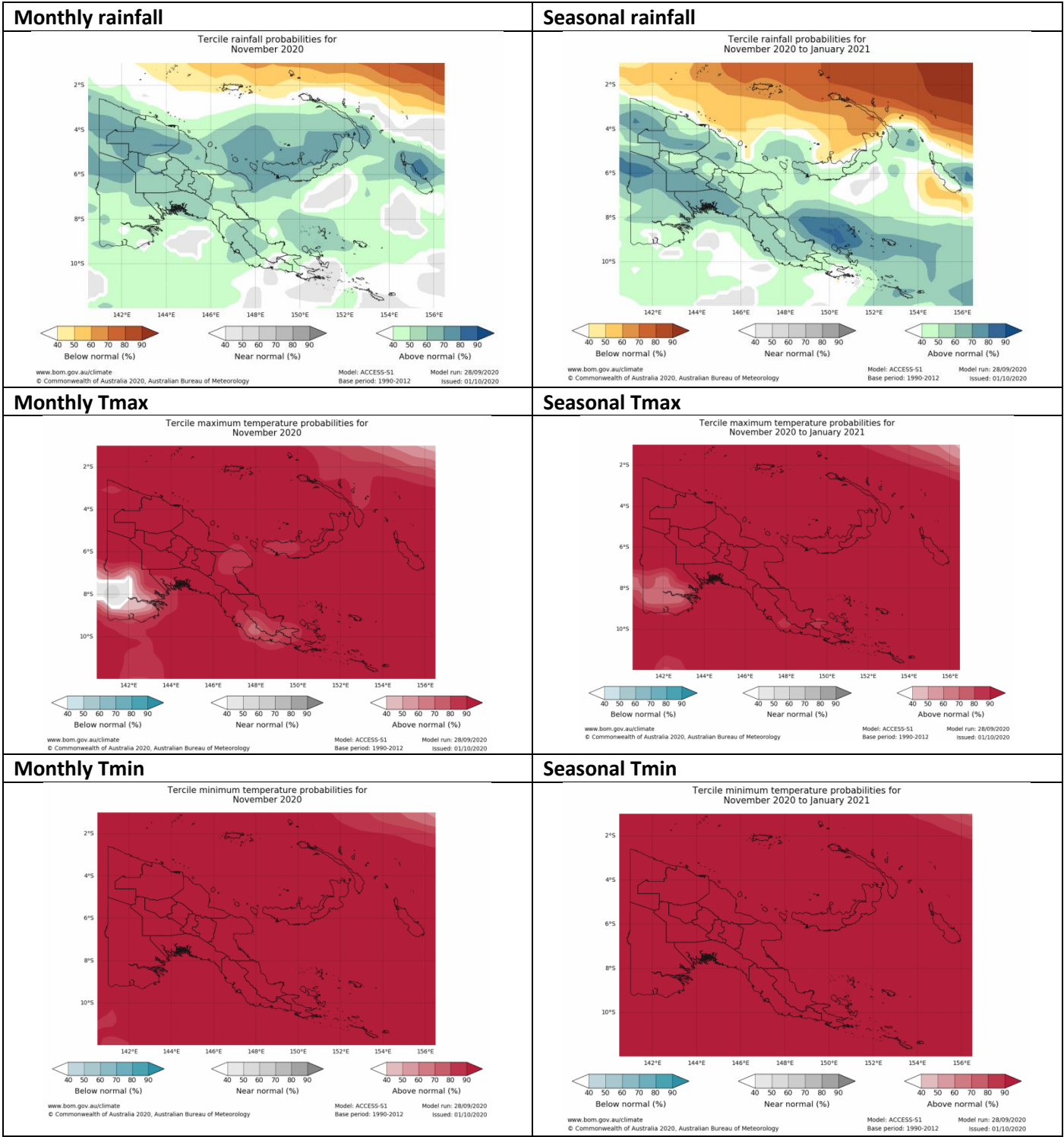
Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 April-May 2020				Verification: Consistent, Near- consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Momase Region											
Madang (1944-2020)	485.4	Above normal	318.5	465.4	395.5	48/70	42	39	19	17	Inconsistent
Nadzab (1973-2020)	476.0	Above normal	281.7	459.9	387.0	33/45	34	32	34	-3	Near-consistent
Wewak (1894-2020)	548.6	Normal	467.1	590.3	542.8	34/64	43	36	21	23	Near-consistent
Vanimo (1918-2020)	426.2	Below normal	465.3	571.2	510.9	19/61	31	33	36	-1	Inconsistent
Highlands Region											
Goroka (1948-2020)	139.4	Below normal	215.0	292.0	250.5	7/54	32	34	34	-2	Near-consistent
New Guinea Islands Region											
Momote (1949-2020)	691.2	Below normal	753.5	1059.0	901.0	17/66	31	32	37	0	Inconsistent
Kavieng (1917-2020)	608.6	Normal	510.7	726.3	620.6	43/87	31	34	35	-1	Near-consistent
Southern Region											
Misima (1917-2020)	618.2	Above normal	321.0	570.4	411.0	62/93	43	35	22	18	Inconsistent
Port Moresby (1875-2020)	74.6	Normal	46.7	94.7	67.5	60/105	35	32	33	-1	Near-consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for November 2020 to January 2021
Predictor and Period used: NINO3.4 for August to September 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2020)	50	1036.6	50		-2	19
Nadzab(1973-2020)	55	406.6	45		0	53
Wewak (1894-2020)	40	481.4	60		6	60
Vanimo (1918-2020)	48	736.2	52		-2	48
Highlands Region						
Goroka (1948-2020)	50	597.0	50		-2	33
New Guinea Islands Region						
Momote (1949-2020)	54	831.0	46		0	52
Kavieng (1916-2020)	59	848.8	41		4	56
Southern Region						
Misima (1917-2020)	41	672.6	59		7	59
Port Moresby (1875-2020)	38	402.6	62		11	64

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)	36	957.0	31	1123.6	33	-1	39
Nadzab (1973-2020)	36	376.3	32	474.5	32	-2	11
Wewak (1894-2020)	23	440.2	34	551.7	43	9	48
Vanimo (1918-2020)	31	674.8	32	849.6	37	-1	35
Highlands Region							
Goroka (1948-2020)	34	528.0	31	641.8	35	-2	33
New Guinea Islands Region							
Momote (1949-2020)	37	736.6	34	894.7	29	0	40
Kavieng (1916-2020)	38	780.0	29	963.7	33	-1	36
Southern Region							
Misima (1917-2020)	26	602.0	36	752.0	38	3	46
Port Moresby (1875-2020)	14	335.9	41	475.0	45	20	42

TABLE 4: Monthly and Seasonal Climate Outlooks using ACCESS-S for November 2020 to January 2021



Summary Statements

Rainfall for September 2020:

Rainfall was below normal at Vanimo, Momote, Kavieng and Port Moresby, whilst above normal at Madang, Nadzab, Wewak and Misima. Goroka recorded normal rainfall.

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

Accumulated rainfall was below normal at Vanimo, Momote and Goroka, normal at Kavieng, Port Moresby and Wewak, and above normal at Madang, Nadzab, and Misima.

The forecast issued in June was verified as inconsistent, Madang, Vanimo, Momote and Misima, and near-consistent at rest of the monitoring stations.

Outlooks for November 2020 to January 2021:

1. SCOPIC:

Wewak and Port Moresby: The outlook for November 2020 to January 2021, shows above normal as the most likely outcome, with normal the next most likely. Below normal is the least likely.

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

All other stations: The outlook offers little guidance as the chances of above normal, normal and below normal is similar. Confidence ranges from very low to high skill.

2. ACCESS-S:

Monthly rainfall:

Momase, Highlands and New Guinea Islands regions: Above normal **November** rainfall is favoured, except for Momote where below normal rainfall is the most likely outcome.

Southern region: Normal to above normal is favoured for the region.

Monthly maximum and minimum temperatures:

Above normal temperatures are favoured across the country in **November**, except for parts of Western in the Southern region where near-normal maximum temperatures are the most likely.

Seasonal rainfall:

Momase, Highlands and Southern regions: Above normal rainfall for **November to January** is favoured for these parts of the country.

New Guinea Islands region: The outlook is varied, with above normal rainfall the most likely outcome for the more southern or eastern parts, whereas below normal is favoured over northern and western islands.

Seasonal maximum and minimum temperatures:

Above normal temperatures are favoured for the **November to January** period.

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: Sept 2020	Stakeholder	Total Number of Particip ants	Number of male	Numbe r of female
Climate Bulletin	22 nd Sept	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.	212	157	55
EAR Watch	10 th Sep	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 Commission, 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	130	82	48
Stakeholder meeting	5 th Sep	PNGNWS and Department of Agriculture and Livestock	6	5	1
Disaster Management Team Meeting	24 th Sep	National Disaster Centre, National Weather Service, UNRCO, IOM, UNDP, UNICEF, FAO, UNFPA, WHO, UNWomen, PNGRCS, ICRC, UNRCO-AROB, UNAIDS, UNDSS, AHC, NZHC, USAID, PNGDF, World Vision, NDOH, NCC.	26	20	6
Total			374	264	110