Pacific Islands - Online Climate Outlook Forum (OCOF) No. 155

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	May-2020	Jun-2020	Jul-2020				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2020)	299.4	378.0	55.4	104.3	183.0	143.0	10/71
Nadzab (1973-2020)	69.8	104.4	171.6	75.9	145.9	117.0	34/46
Wewak (1956-2020)	89.8	240.2	104.4	150.2	206.4	177.3	10/65
Vanimo (1918-2020)	265.6	105.6	96.8	145.6	219.8	197.8	13/66
Highlands Region							
Goroka (1948-2020)	56.8	89.6	11.0	45.2	71.0	55.0	6/57
New Guinea Islands Region							
Momote (1949-2020)	155.6	110.6	210.6	307.3	413.3	349.2	11/67
Kavieng (1916-2020)	169.2	109.0	182.6	195.8	279.0	222.3	27/90
Southern Region							
Misima (1917-2020)	258.0	166.0	140.2	87.0	189.9	135.5	50/95
Port Moresby (1875-2020)	213.8	43.8	49.0	6.2	25.4	13.5	102/121

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

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 February-March 2020				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Momase Region											
Madang (1944-2020)	732.8	Normal	630.9	816.7	744.2	33/67	**47**	35	18	22	Near-consistent
Nadzab (1973-2020)	345.8	Normal	274.3	372.9	310.1	27/45	32	**34**	**34**	-3	Near-consistent
Wewak (1956-2020)	434.4	Below normal	554.6	694.6	630.0	12/65	**40**	34	26	6	Consistent
Vanimo (1918-2020)	468.0	Below normal	575.0	685.5	607.4	14/65	34	31	**35**	-2	Inconsistent
Highlands Region											
Goroka (1948-2020)	157.4	Below normal	206.7	271.5	239.5	7/52	**42**	33	25	5	Consistent
New Guinea Islands Region											
Momote (1949-2020)	476.8	Below normal	798.1	1040.0	907.3	**4/66**	28	**37**	35	0	Near-consistent
Kavieng (1917-2020)	460.8	Below normal	639.8	787.2	725.2	**6/88**	35	26	**39**	0	Inconsistent
Southern Region											
Misima (1917-2020)	564.2	Normal	470.2	706.0	558.4	42/93	**47**	44	9	31	Near-consistent
Port Moresby (1875-2020)	306.6	Above normal	86.9	156.2	119.3	**102/110**	**39**	32	29	2	Inconsistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for September to November2020

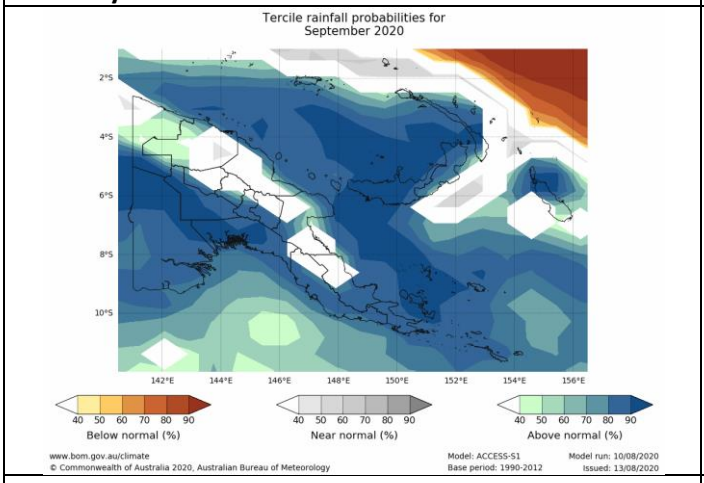
Predictor and Period used: NINO3.4 for June to July 2020

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2020)	47	690.2	53		30	74
Nadzab(1973-2020)	46	285.2	54		9	66
Wewak (1956-2020)	47	589.1	53		9	62
Vanimo (1918-2020)	48	541.0	52		5	62
Highlands Region						
Goroka (1948-2020)	51	423.0	49		-1	59
New Guinea Islands Region						
Momote (1949-2020)	50	730.5	50		-2	29
Kavieng (1916-2020)	50	684.2	50		-2	32
Southern Region						
Misima (1917-2020)	47	676.0	53		22	72
Port Moresby (1875-2020)	47	109.8	53		16	64

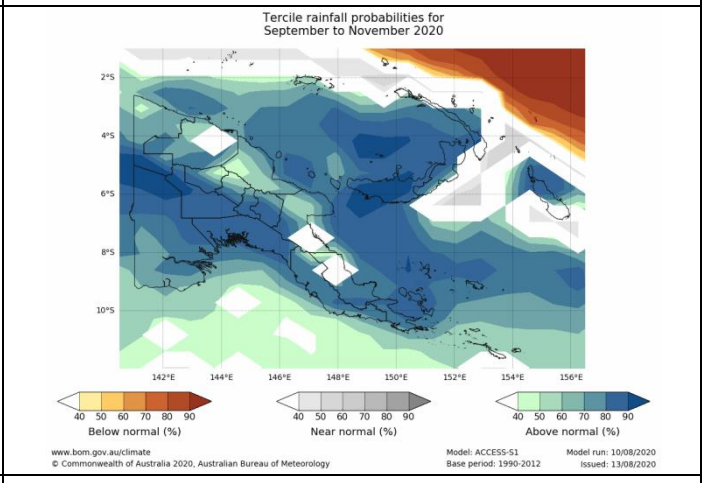
Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region							
Madang (1944-2020)	23	612.9	45	828.5	32	31	55
Nadzab (1973-2020)	26	239.5	38	340.3	36	15	50
Wewak (1956-2020)	22	528.3	40	666.1	38	19	48
Vanimo (1918-2020)	32	502.3	33	633.9	35	4	34
Highlands Region							
Goroka (1948-2020)	34	355.0	33	474.0	33	0	39
New Guinea Islands Region							
Momote (1949-2020)	33	658.0	33	798.0	34	-2	28
Kavieng (1916-2020)	33	554.7	33	780.5	34	-2	11
Southern Region							
Misima (1917-2020)	27	485.6	39	791.0	34	20	52
Port Moresby (1875-2020)	31	80.6	37	158.8	32	17	50

Monthly and Seasonal Climate Outlooks using ACCESS-S for September to November 2020

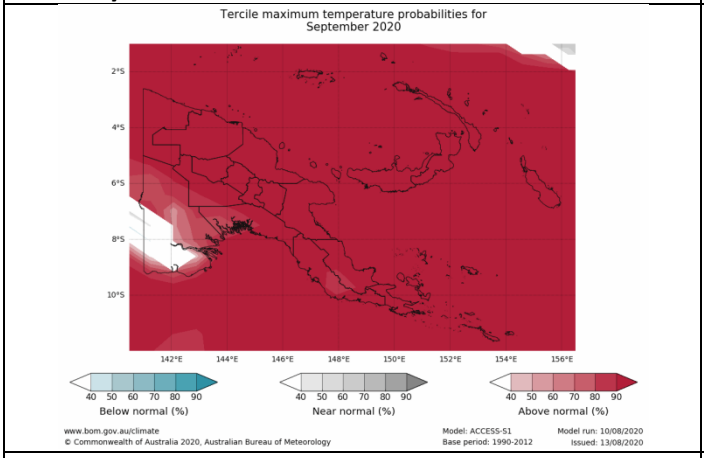
Monthly rainfall



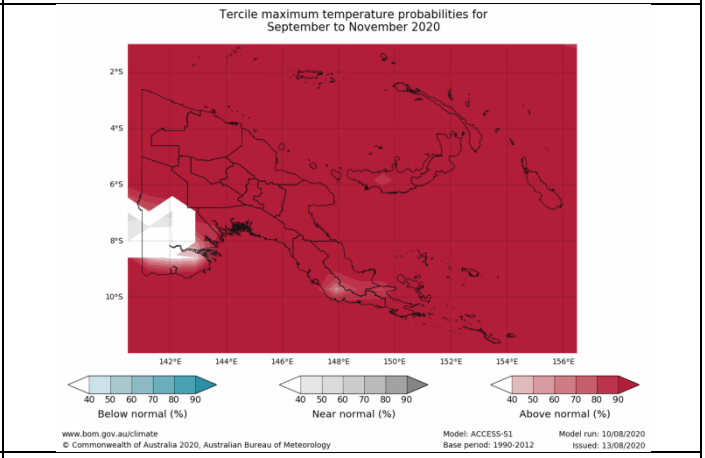
Seasonal rainfall



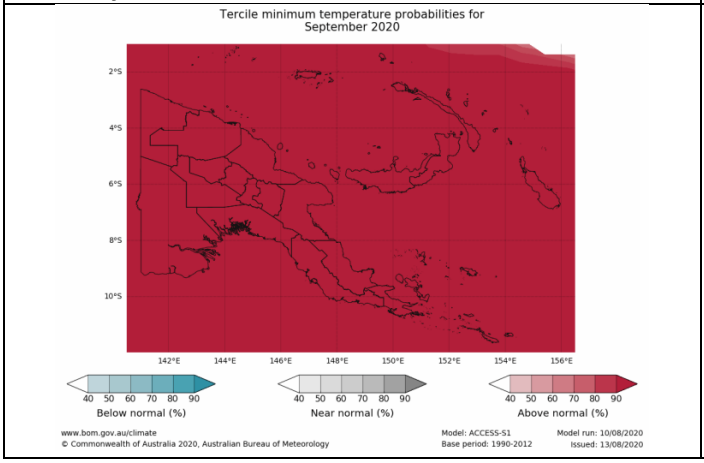
Monthly Tmax



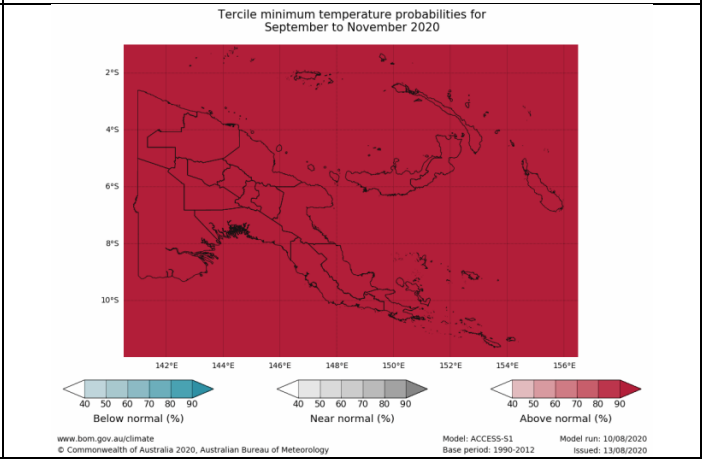
Seasonal Tmax



Monthly Tmin



Seasonal Tmin



Summary Statements

Rainfall for July 2020:

Rainfall was below normal at most of the monitoring stations, except for Nadzab and Port Moresby, which received above normal rainfall, and Misima where normal rainfall was received.

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

Rainfall was generally normal to below normal for the past season, apart from Port Moresby where rainfall was above normal. The outlook issued in April was mainly near-consistent or inconsistent, except for Wewak and Goroka with consistent forecasts.

For May to July, Momote recorded its fourth driest total in 66 years and Kavieng recorded its sixth driest total in 88 years. Port Moresby also recorded its ninth wettest season in 110 years.

Outlooks for September to November 2020:

1. **SCOPIC:**
   Madang and Misima: The outlook for September to November shows normal rainfall as the most likely outcome, with above normal the next most likely. Below normal is the least likely.

   Nadzab and Wewak: The outlook shows near-equal chances 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 are similar (Climatology).

   Confidence ranges from very low to very high skill.

2. **ACCESS-S:**

   Monthly rainfall:

   Momase region: Mainly little guidance, but for inland areas of Sepik and Morobe, above normal is the most likely outcome for September rainfall.

   Highlands region: Above normal is the most likely outcome.

   New Guinea Islands region: Above normal rainfall is favoured.

   Southern region: Above normal rainfall is favoured.

   Monthly maximum temperature and minimum temperature:

   A warmer than normal September is favoured across the country, except for parts of Western Province where there is little guidance in maximum temperature.

   Seasonal rainfall:

   Above normal rainfall is favoured across the country for the September to November period.

   Seasonal maximum and minimum temperature:

   A warmer than normal September-November is favoured across the country, except for parts of Western Province where there is little guidance in the maximum temperature.

NB: The X LEPS % score has been categorised as follows:

Very Low: X < 0.0 Low: 0 ≤ X < 5 Moderate 5 ≤ X < 10 Good: 10 ≤ X < 15 High: 15≤ X < 25

Very High: 25 ≤X < 35 Exceptional: X ≥ 35

Table: 5Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: July 2020	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	27 July	Govt: National Disaster Centre, Dept. of Agriculture and Livestock, ClimateChange Development Authority,National Agriculture Research Institute, Dept. of Transport, Dept. ofMineral Policy and GeohazardManagement, Dept. of Works, PNGFire, National Maritime SafetyAuthority, Civil Aviation SafetyAuthority, PNG Forest Authority,National Capital District Commission,PNG Customs Authority, NationalDept. Of Health, Dept. of Education,Centre for Environmental Protection Authority. UN agencies: UNDP, IOM, UNOCH. Private: PNG Air ServicesLimited, ExxonMobil, Ok Tedi MiningLtd, PNG Power Ltd, GlobalConstruction Ltd, Datec, Interoil, AirNiugini, Bank South Pacific, PNGPorts, Media and Universities.	203	145	58
EAR Watch	15 July	Govt: National Disaster Centre, Dept. Of Transport, National Agriculture Research Institute, Dept. OfAgriculture and Livestock, ProvincialDisasterCoordinators, Civil Aviation SafetyAuthority, Climate Change DevelopmentAuthority, Dept. Of Mineral Policy and GeohazardManagment, PNG DFAT, Centre ofEnvironmental 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	124	38	86
EAR Watch re-circulated by Disaster Management Team	16 July	National Disaster Centre, UNRCO, IOM, UNDP, UNICEF, FAO, WHO, UNWomen, UNFPA, UNDSS, OHCHR, UNAIDS, WVI, WFP, PNGCC, Caritas, Care International, Child Fund, MSF, Oxfam, Plan International, PSI PNG, Save The Children, ICRC, IFRC, PNG Red Cross Society, World Bank, DFFAT, PRC, EU, JICA, MFAT, USAID, CDC, PNG DisabilitySector Coalition, Department of Education, Department of Agriculture and Livestock	121	70	51
Disaster Management Team Virtual Meeting	23 July	National Disaster Centre, National Weather Service, UNRCO, IOM, UNDP, UNICEF, FAO, UNFPA, WHO, UNWomen, PNGRCS, ICRC, UNRCO-AROB, UNAIDS, AHC, NZHC, EU, USAID, PNGDF, Child Fund, Oxfam, WVI, NDOH, NCC.	40	26	14
		Total	488	279	209