

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 154

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Apr-2020	May-2020	Jun-2020				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
<b>Momase Region</b>							
Madang (1944-2020)	243.8	299.4	378.0	158.0	225.4	205.4	62/69
Nadzab (1973-2020)	162.0	69.8	104.4	64.0	121.4	82.7	27/47
Wewak (1956-2020)		89.8	240.2	171.6	227.8	198.3	46/65
Vanimo (1918-2020)		265.6	105.6	179.0	246.6	208.6	8/66
<b>Highlands Region</b>							
Goroka (1948-2020)	187.2	56.8	89.6	45.0	78.8	59.0	47/56
<b>New Guinea Islands Region</b>							
Momote (1949-2020)	182.6	155.6	110.6	242.5	318.0	281.6	6/66
Kavieng (1916-2020)	279.6	169.2	109.0	198.3	275.4	220.0	3/90
<b>Southern Region</b>							
Misima (1917-2020)	224.6	258.0	166.0	117.1	243.4	163.0	42/94
Port Moresby (1875-2020)	39.2	213.8	43.8	10.2	46.9	23.8	83/122

**TABLE 2: Three-month Rainfall for April to June 2020**

Station	Three-month Total	33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 January-February 2020				Verification: Consistent, Near-consistent, Inconsistent?	
	Rainfall (mm)					B-N	N	A-N	LEPS		
<i>Momase Region</i>											
Madang (1944-2020)	921.2	Normal	902.7	1075.3	1010.4	27/67	41	38	21	9	Near-consistent
Nadzab (1973-2020)	336.2	Normal	271.4	349.2	324.6	25/44	34	31	35	-3	Near-consistent
Wewak (1894-2020)			564.4	671.2	641.6		37	30	33	-1	
Vanimu (1918-2020)			579.9	739.0	652.9		33	34	33	-2	
<i>Highlands Region</i>											
Goroka (1948-2020)	333.6	Normal	329.0	424.0	393.0	19/52	36	31	33	-2	Near-consistent
<i>New Guinea Islands Region</i>											
Momote (1949-2020)	448.8	Below normal	716.5	903.0	850.9	3/64	37	27	36	-1	Consistent
Kavieng (1917-2020)	557.8	Below normal	701.1	899.2	807.6	11/88	30	35	35	-1	Near-consistent
<i>Southern Region</i>											
Misima (1917-2020)	648.6	Normal	609.0	877.0	741.6	35/93	43	41	16	17	Near-consistent
Port Moresby (1875-2020)	296.8	Above normal	195.6	290.4	249.6	84/115	44	28	28	13	Near-consistent

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for August to October 2020**

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

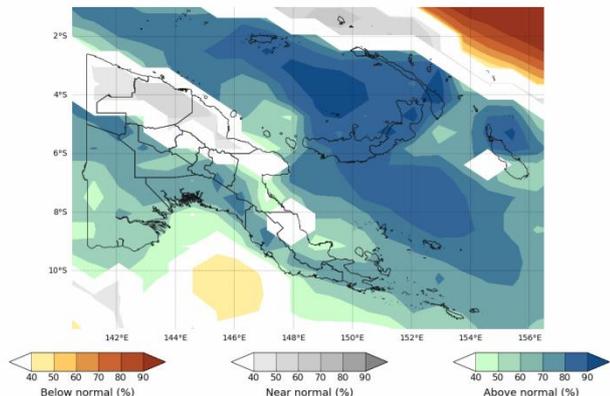
Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<b>Momase Region</b>						
Madang (1944-2020)	45	471.4	55		29	77
Nadzab(1973-2020)	46	335.8	54		5	55
Wewak (1894-2020)	43	571.9	57		27	69
Vanimo (1918-2020)	49	523.0	51		0	51
<b>Highlands Region</b>						
Goroka (1948-2020)	51	343.8	49		-2	64
<b>New Guinea Islands Region</b>						
Momote (1949-2020)	51	758.0	49		-1	57
Kavieng (1916-2020)	50	631.8	50		-2	35
<b>Southern Region</b>						
Misima (1917-2020)	45	546.2	55		21	63
Port Moresby (1875-2020)	50	80.8	50		-1	54

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)	LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<b>Momase Region</b>							
Madang (1944-2020)	25	386.7	41	606.5	34	27	54
Nadzab (1973-2020)	30	275.7	35	395.9	35	1	23
Wewak (1894-2020)	23	487.1	41	652.4	36	26	50
Vanimo (1918-2020)	32	487.7	34	561.5	34	-1	45
<b>Highlands Region</b>							
Goroka (1948-2020)	34	276.0	34	389.5	32	-1	40
<b>New Guinea Islands Region</b>							
Momote (1949-2020)	33	649.3	34	898.7	33	-2	17
Kavieng (1916-2020)	33	520.2	33	716.0	34	-2	22
<b>Southern Region</b>							
Misima (1917-2020)	29	420.0	39	675.0	32	23	49
Port Moresby (1875-2020)	33	59.7	34	113.1	33	-2	19

# Monthly and Seasonal Climate Outlooks using ACCESS-S for August to October 2020

## Monthly rainfall

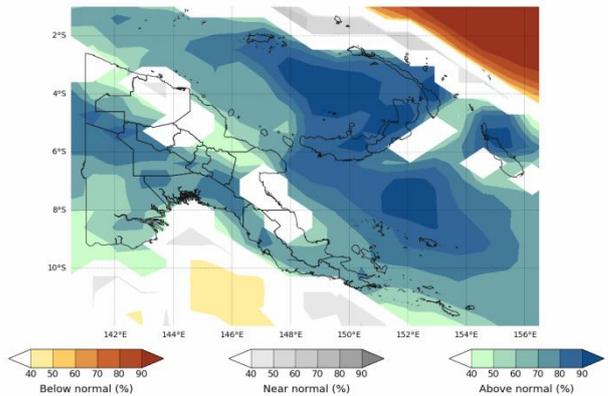
Tercile rainfall probabilities for August 2020



www.bom.gov.au/climate © Commonwealth of Australia 2020, Australian Bureau of Meteorology Model: ACCESS-S1 Model run: 04/07/2020 Base period: 1990-2012 Issued: 06/07/2020

## Seasonal rainfall

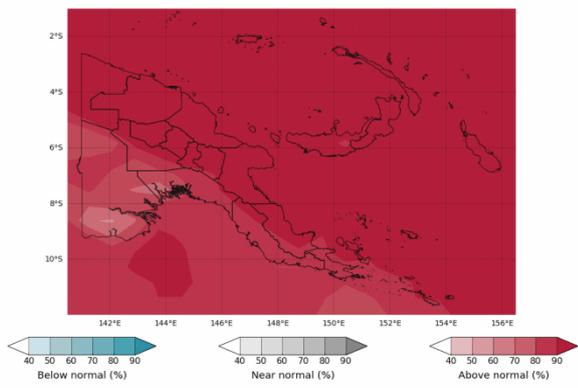
Tercile rainfall probabilities for August to October 2020



www.bom.gov.au/climate © Commonwealth of Australia 2020, Australian Bureau of Meteorology Model: ACCESS-S1 Model run: 04/07/2020 Base period: 1990-2012 Issued: 06/07/2020

## Monthly Tmax

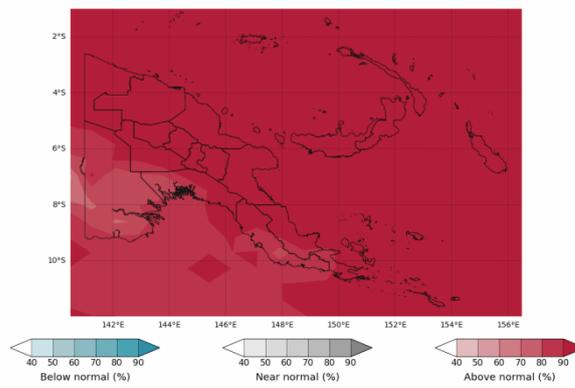
Tercile maximum temperature probabilities for August 2020



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## Seasonal Tmax

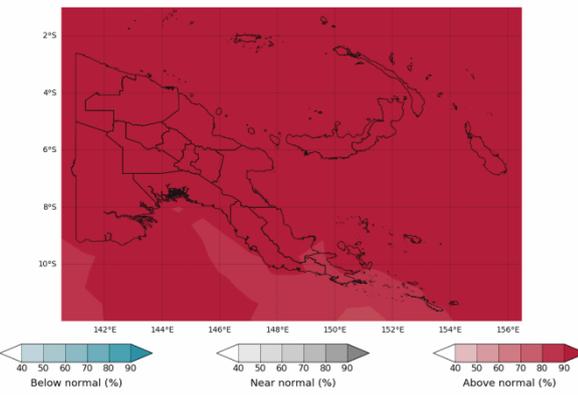
Tercile maximum temperature probabilities for August to October 2020



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## Monthly Tmin

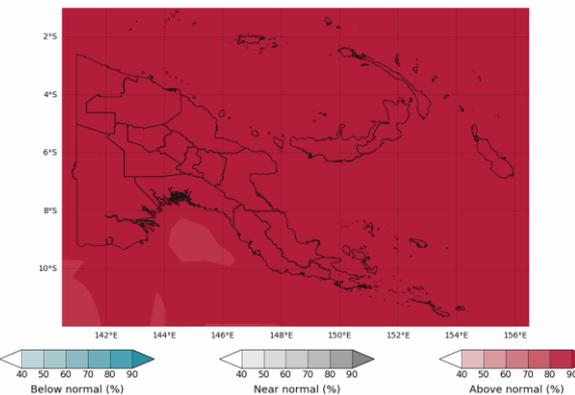
Tercile minimum temperature probabilities for August 2020



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## Seasonal Tmin

Tercile minimum temperature probabilities for August to October 2020



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## **Summary Statements**

### **Rainfall for June 2020:**

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

Kavieng recorded its third driest June in 90 years, while Momote recorded its sixth driest in 66 years.

### **Accumulated rainfall for April to June 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 March was consistent at Momote and near-consistent at the rest of the stations.

Momote recorded its third driest April to June total in 64 years.

Three month totals were not available for Wewak and Vanimo.

### **Outlooks for August to October 2020:**

#### **1. SCOPIC:**

**Madang and Wewak:** The outlook for August to October shows normal as the most likely outcome, with above normal the next most likely. 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:** Normal rainfall is favoured for the region in August, except south-west of Morobe where above normal rainfall is the most likely outcome.

**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 and minimum temperature:**

A warmer than normal August is favoured across the country

##### **Seasonal rainfall:**

**Momase region:** Mainly little guidance close to the coast, but for inland areas above normal is the most likely outcome.

**Highlands region:** Above normal is generally favoured over the region.

**New Guinea Islands region:** Above normal is favoured for the region.

**Southern region:** Above normal rainfall is favoured for the region.

##### **Seasonal maximum and minimum temperature:**

A warmer than normal August-October is favoured across the country.

**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:  $15 \leq X < 25$

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

Product	Date: June 2020	Stakeholder	Total Number of Particip ants	Nu mb er of mal e	Numb er of femal e
Climate Bulletin	23 <sup>rd</sup> June	Govt: National Disaster Centre, Dept. of Agriculture and Livestock, ClimateChange 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.	201	145	56
EAR Watch	12 June	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 Management, 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 Hydro Services, PNG Power, Ok Tedi Mining Ltd, Media. Aus DFAT	123	88	35
EAR Watch re-circulated by Disaster Management Team	12th June	National Disaster Centre, UNRCO, IOM, UNDP, UNICEF, FAO, WHO, UN Women, 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 Disability Sector Coalition, Department of Education, Department of Agriculture and Livestock	121	70	51
Disaster Management Team Virtual Meeting	29th June	National Disaster Centre, National Weather Service, UNRCO, IOM, UNDP, UNICEF, FAO, UNFPA, WHO, UN Women, PNGRCS, ICRC, UNRCO-AROB, UNAIDS, AHC, NZHC, EU, USAID, PNGDF, Child Fund, Oxfam, WVI, NDOH, NCC.	39	27	12
<b>Total</b>			484	330	154