

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 | | | | |
|-------------------------------|------------|------------|---------------|---------|---------|--------|--------|
| | | | Total (mm) | 33%tile | 67%tile | Median | Rank |
| | Total (mm) | Total (mm) | Rainfall (mm) | | | | |
| Momase Region | | | | | | | |
| 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 |
| Highlands Region | | | | | | | |
| Goroka (1948-2020) | 187.2 | 56.8 | 89.6 | 45.0 | 78.8 | 59.0 | 47/56 |
| New Guinea Islands Region | | | | | | | |
| 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 |
| Southern Region | | | | | | | |
| 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 | |
| Momase Region | | | | | | | | | | | |
| 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 | |
| Vanimo (1918-2020) | | | 579.9 | 739.0 | 652.9 | | 33 | 34 | 33 | -2 | |
| Highlands Region | | | | | | | | | | | |
| Goroka (1948-2020) | 333.6 | Normal | 329.0 | 424.0 | 393.0 | 19/52 | 36 | 31 | 33 | -2 | Near-consistent |
| New Guinea Islands Region | | | | | | | | | | | |
| 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 |
| Southern Region | | | | | | | | | | | |
| 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

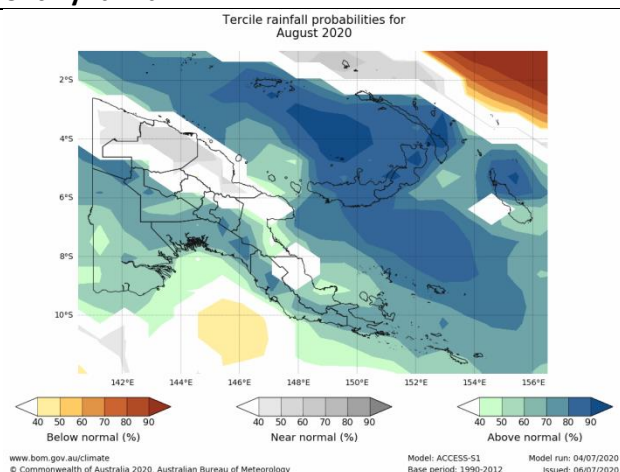
Predictor and Period used: NINO3.4 for May to June 2020

| Station | Below Median (prob) | Median Rainfall (mm) | Above Median (prob) | | LEPS (%) [whole numbers] | Hit-rate (%) [whole numbers] |
|----------------------------------|---------------------------|----------------------------|---------------------------|--|--------------------------------|---------------------------------------|
| Momase Region | | | | | | |
| 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 |
| Highlands Region | | | | | | |
| Goroka (1948-2020) | 51 | 343.8 | 49 | | -2 | 64 |
| New Guinea Islands Region | | | | | | |
| Momote (1949-2020) | 51 | 758.0 | 49 | | -1 | 57 |
| Kavieng (1916-2020) | 50 | 631.8 | 50 | | -2 | 35 |
| Southern Region | | | | | | |
| Misima (1917-2020) | 45 | 546.2 | 55 | | 21 | 63 |
| Port Moresby (1875-2020) | 50 | 80.8 | 50 | | -1 | 54 |

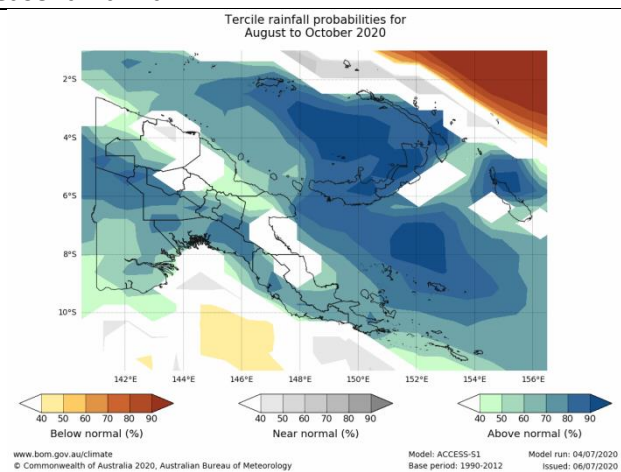
| Station | Below Normal (prob) | 33%ile Rainfall (mm) | Normal (prob) | 67%ile Rainfall (mm) | Above Normal (prob) | LEPS (%) [whole numbers] | Hit-rate (%) [whole numbers] |
|----------------------------------|---------------------------|----------------------------|------------------|----------------------------|---------------------------|--------------------------------|---------------------------------------|
| Momase Region | | | | | | | |
| 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 |
| Highlands Region | | | | | | | |
| Goroka (1948-2020) | 34 | 276.0 | 34 | 389.5 | 32 | -1 | 40 |
| New Guinea Islands Region | | | | | | | |
| Momote (1949-2020) | 33 | 649.3 | 34 | 898.7 | 33 | -2 | 17 |
| Kavieng (1916-2020) | 33 | 520.2 | 33 | 716.0 | 34 | -2 | 22 |
| Southern Region | | | | | | | |
| 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

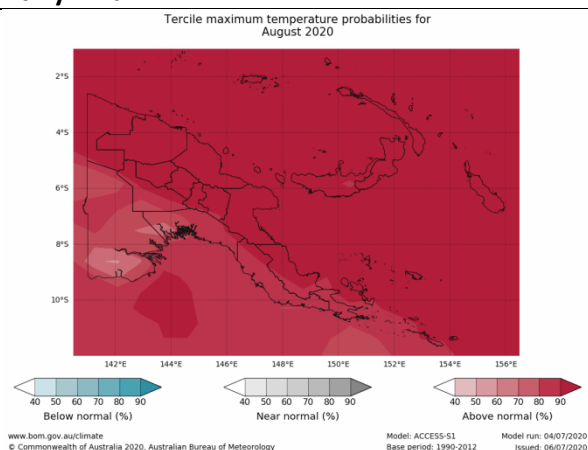
Monthly rainfall



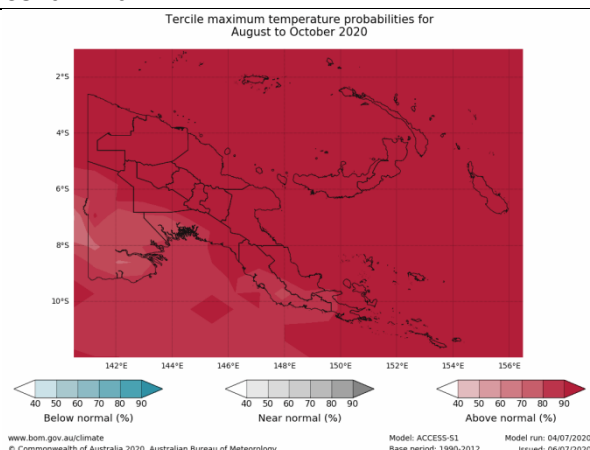
Seasonal rainfall



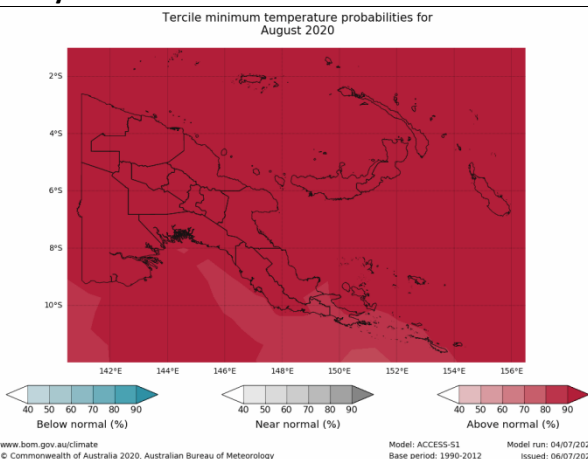
Monthly Tmax



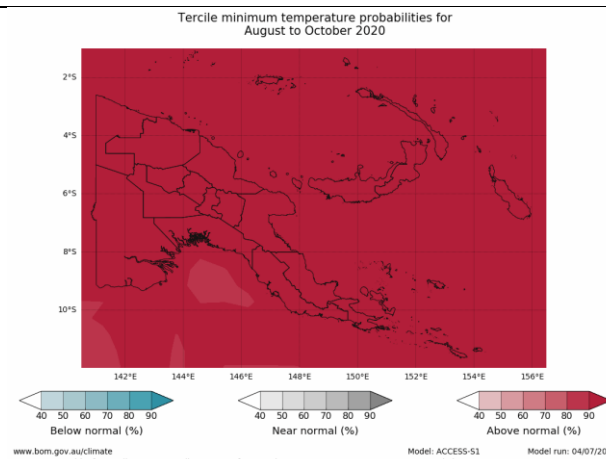
Seasonal Tmax



Monthly Tmin



Seasonal Tmin



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: 5Stakeholder 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 rd June | 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. | 201 | 145 | 56 |
| EAR Watch | 12 June | 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 | 123 | 88 | 35 |
| EAR Watch re-circulated by Disaster Management Team | 12th June | 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 | 29th June | 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. | 39 | 27 | 12 |
| Total | | | 484 | 330 | 154 |