

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 145

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Jul-2019	Aug-2019	Sep-2019				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2019)	?	87.0	14.0	74.3	177.9	120.7	10/70
Nadzab (1973-2019)	77.6	187.6	75.0	56.2	133.6	107.9	19/45
Wewak (1894-2019)	58.8	208.2	225.4	142.9	206.8	180.3	46/63
Vanimo (1918-2019)	206.8	99.0	137.0	127.4	193.0	155.8	30/64
Highlands Region							
Goroka (1948-2019)	45.2	113.2	75.4	68.0	124.7	96.8	20/57
New Guinea Islands Region							
Momote (1949-2019)	195.6	415.4	135.8	209.0	277.0	249.2	8/66
Kavieng (1916-2019)	212.8	294.2	135.6	143.2	209.0	169.2	26/92
Southern Region							
Misima (1917-2019)	131.4	172.2	82.6	103.4	255.8	183.8	23/94
Port Moresby (1875-2019)	26.8	66.7	102.4	10.6	31.0	21.0	120/122

TABLE 2: Three-month Rainfall for July to September 2019

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities based on NINO3.4 April-May 2019				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
<i>Momase Region</i>											
Madang (1944-2019)			322.7	466.8	401.2		57	35	8	16	
Nadzab (1973-2019)	340.2	Normal	277.0	462.0	396.0	19/44	40	30	30	-3	Near-consistent
Wewak (1894-2019)	492.4	Normal	466.1	591.5	543.4	27/63	74	19	7	24	Near-consistent
Vanimo (1918-2019)	442.8	Below normal	468.0	584.0	516.0	19/60	24	33	43	0	Inconsistent
<i>Highlands Region</i>											
Goroka (1948-2019)	233.8	Normal	210.0	292.6	252.0	23/53	31	33	36	-2	Near-consistent
<i>New Guinea Islands Region</i>											
Momote (1949-2019)	746.8	Below normal	767.0	1065.0	914.0	22/65	25	31	44	1	Inconsistent
Kavieng (1917-2019)	642.6	Normal	509.0	727.2	607.0	47/86	30	31	39	-2	Near-consistent
<i>Southern Region</i>											
Misima (1917-2019)	386.2	Normal	319.5	572.1	422.0	36/92	71	21	8	20	Near-consistent
Port Moresby (1875-2019)	195.9	Above normal	45.7	94.3	67.0	100/104	39	31	30	-1	Inconsistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for November 2019 to January 2020
Predictor and Period used: NINO3.4 for August to September 2019

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2019)	50	1038.5	50		-2	13
Nadzab(1973-2019)	49	410.8	51		0	55
Wewak (1894-2019)	52	480.6	48		7	61
Vanimo (1918-2019)	50	737.6	50		-2	49
Highlands Region						
Goroka (1948-2019)	50	588.0	50		-2	29
New Guinea Islands Region						
Momote (1949-2019)	49	830.0	51		-1	50
Kavieng (1916-2019)	48	848.6	52		4	54
Southern Region						
Misima (1917-2019)	53	672.6	47		7	60
Port Moresby (1875-2019)	55	402.8	45		11	62

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 (1944-2019)	32	960.0	34	1127.2	34	-1	38
Nadzab (1973-2019)	33	381.5	33	477.9	34	-3	27
Wewak (1894-2019)	35	439.8	36	545.4	29	9	51
Vanimo (1918-2019)	34	674.9	33	854.8	33	0	33
Highlands Region							
Goroka (1948-2019)	33	524.7	34	641.9	33	-2	29
New Guinea Islands Region							
Momote (1949-2019)	32	734.2	34	898.3	34	0	47
Kavieng (1916-2019)	32	777.0	34	949.9	34	-1	35
Southern Region							
Misima (1917-2019)	35	602.0	33	752.0	32	3	46
Port Moresby (1875-2019)	36	344.1	36	476.6	28	19	41

TABLE 4: Seasonal Climate Outlooks using POAMA2 for November 2019 to January 2020

Insert Table 4 (copied from Excel) on the line below, then delete this line of text.

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
<i>Momase Region</i>					
Madang	19	960.0	42	1116.0	39
Nadzab	24	345.0	24	416.0	52
Wewak	39	427.0	28	506.0	33
<i>New Guinea Islands Region</i>					
Momote	27	720.0	18	888.0	55
Kavieng	24	767.0	18	942.0	58
<i>Southern Region</i>					
Misima	12	553.0	15	738.0	73
Port Moresby	33	272.0	15	411.0	52
Daru	5	441.0	47	531.0	48

Summary Statements

Rainfall for September 2019:

There was above normal rainfall recorded at Wewak and Port Moresby whilst normal rainfall was recorded at Nadzab, Vanimo and Goroka. The remaining stations recorded below normal rainfall.

Momote recorded its 8th driest September on record whilst Port Moresby recorded its 3rd wettest September on record.

Accumulated rainfall for July to September 2019, including outlook verification:

Port Moresby recorded above normal rainfall whilst Vanimo and Momote recorded below normal rainfall. The remaining stations recorded normal rainfall.

The outlook issued in August was inconsistent at Vanimo, Momote and Port Moresby, and near-consistent at remaining sites.

Outlooks for November 2019 to January 2020:

1. SCOPIC:

The outlook offers little guidance as the chances of below normal, normal and above normal are similar for all monitoring stations.

2. POAMA:

The outlook favours above normal rainfall at Nadzab, the New Guinea Islands, Misima and Port Moresby. At Madang and Daru, the outlook shows near-equal chances of normal and above normal rainfall, with below normal the least likely.

For Wewak, the outlook offers little guidance as the chances of below normal, normal and above normal rainfall are similar.

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: September 2019	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Update	12th September	Staff	25	14	11
EAR Watch	17th September	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 and Universities	108	70	38
EAR Watch (Circulated by DMT)	18th September	Govt: National Disaster Center, Dept. Of	52	37	15

secretariat)		<p>Agriculture and Livestock, PNG Defence Force, PNG Disability Sector Coalition. UN agencies: UN Resident Coordinators Office, UNDP, IOM, UNICEF, UNWomen, WHO, UNFPA, UNFAO, UNDSS, OHCHR, OCHA-ROAP, WFP, UNHCR. NGOs: Care Int'l, Childfund, Oxfam, Plan Int'l, SAVE the Children, WVI. ICRC, IFRC and PNGRC. Faith-based Orgs: Caritas Australia/PPP. Development Partners: UK Embassy, World Bank, DFAT, EU, Japan, MFAT, USAID and ECHO. Private : ExxonMobil</p>			
Climate Update	25th September	Staff and BoM	15	8	7
Total			200		