

Pacific Islands - Online Climate Outlook Forum (OCOF) No.129

Country Name: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)			May 2018				
	March 2018 Total	April 2018 Total	Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking
Momase Region							
Madang (1944-2018)	-	-	-	300.4	416.7	334.5	-
Nadzab(1973-2018)	177.0	-	90.0	66.2	105.2	78.6	26/44
Wewak (1894-2018)	123.2	-	263.6	178.9	271.6	220.2	40/63
Vanimo (1918-2018)	331.4	-	223.8	166.3	268.3	205.8	37/65
Highlands Region							
Goroka (1948-2018)	262.0	-	91.0	91.0	140.3	109.0	18/54
NGI Region							
Momote (1949-2018)	341.8	-	137.0	199.0	257.0	236.1	6/64
Kavieng (1916-2018)	428.0	-	252.6	198.0	296.6	244.9	48/88
Southern region							
Misima (1917-2018)	160.4	383.4	357.8	190.3	324.2	249.0	67/93
Port Moresby (1875-2018)	326.4	-	61.6	31.0	73.5	51.0	73/126

**TABLE 2: Three-monthly Rainfall
March 2018 to May 2018**

[Please note that the data used in this verification should be sourced from table 3 of OCOF #125]

Station	Three-month Total	33%tile Rainfall (mm)	67%tile Rainfall (mm)	Median Rainfall (mm)	Ranking	Forecast probs.* (include LEPS)	Verification* (Consistent, Near-consistent Inconsistent)?
Momase Region							
Madang (1944-2018)	-	999.3	1203.0	1131.8	-	33/33/34 (-1.7)	-
Nadzab(1973-2018)	-	362.1	428.7	389.0	-	36/36/28 (-0.3)	-
Wewak (1894-2018)	-	511.8	645.9	604.1	-	24/42/34 (1.0)	-
Vanimo (1918-2018)	-	615.9	839.9	705.6	-	32/38/30 (-1.8)	-
Highlands Region							
Goroka (1948-2018)	-	492.0	610.0	558.9	-	40/38/22 (4.6)	-
NGI Region							
Momote (1949-2018)	-	744.0	928.0	830.3	-	33/35/32 (-1.6)	-
Kavieng (1916-2018)	-	772.8	943.8	842.2	-	43/26/31 (3.0)	-
Southern Region							
Misima (1917-2018)	901.6	693.5	998.7	791.8	56/93	15/36/49 (18)	Near-consistent
Port Moresby (1875-2018)	-	308.1	450.4	382.0	-	25/32/43 (3.6)	-

Period:*below normal/normal/above normal

Predictors and Period used for March 2018 to May 2018 Outlooks (refer to OCOF #125):
NINO3.4 SST anomalies for December 2017-January 2018

* Forecast is consistent when observed and predicted (tercile with the highest probability) categories coincide (are in the same tercile).

Forecast is near-consistent when observed and predicted (tercile with the highest probability) differ by only one category (i.e. terciles 1 and 2 or terciles 2 and 3).

Forecast is inconsistent when observed and predicted (tercile with the highest probability) differ by two categories (i.e. terciles 1 and 3).

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for
July to September 2018**

Predictors and Period used: NINO3.4 SST anomalies for April-May 2018

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS	Hit-rate
Mamose Region						
Madang (1944-2018)	47	401.2	53		10.8	61.2
Nadzab(1973-2018)	49	387.0	51		-2.2	54.8
Wewak (1894-2018)	40	544.1	60		37.2	77.0
Vanimo (1918-2018)	51	516.1	49		0.1	55.8
Highlands Region						
Goroka (1948-2018)	51	249.0	49		-0.9	54.0
NGI Region						
Momote (1949-2018)	52	901.0	48		3.8	60.3
Kavieng (1916-2018)	51	609.8	49		-1.4	51.7
Southern Region						
Misima (1917-2018)	46	464.0	54		20.1	70.8
Port Moresby (1875-2018)	48	64.7	52		1.7	54.7

Station	Below Normal (prob)	33%ile rainfall (mm)	Normal (prob)	67%ile rainfall (mm)	Above Normal (prob)	LEPS	Hit-rate
Momase region							
Madang (1944-2018)	30	322.7	36	466.8	34	16.0	49.3
Nadzab(1973-2018)	31	270.6	35	462.7	34	-2.7	19.0
Wewak (1894-2018)	21	468.0	41	592.8	38	25.5	54.1
Vanimo (1918-2018)	34	462.4	34	559.3	32	-0.6	36.5
Highlands Region							
Goroka (1948-2018)	34	210.0	33	286.7	33	-1.7	34.0
NGI Region							
Momote (1949-2018)	34	758.7	34	1074.5	32	0.3	17.5
Kavieng (1916-2018)	34	519.1	34	723.5	32	-1.5	36.7
Southern Region							
Misima (1917-2018)	27	331.3	41	617.5	32	24.8	55.4
Port Moresby (1875-2018)	32	41.8	34	87.3	34	-1.0	35.9

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for
July to September 2018**

Station	Lower Tercile (prob)	33%ile rainfall (mm)	Middle Tercile (prob)	67%ile rainfall (mm)	Upper Tercile (prob)		
Momase Region							
Madang	45	280	25	426	30		
Nadzab	42	204	19	384	39		
Wewak	25	432	33	590	42		
New Guinea Islands Region							
Momote	42	779	19	1011	39		
Kavieng	45	489	13	699	42		
Southern Region							
Misima	58	265	18	500	24		
Port Moresby	64	37	9	70	27		
Daru	5	81	74	150	21		

Summary Statements

Rainfall for May 2018:

Below normal was received at Momote, whilst above normal was received at Misima. All other monitoring stations received normal rainfall. Momote experienced the 6 driest May on record.

Accumulated rainfall for March to May 2018, including outlook verification:

Misima received above normal rainfall and the forecast was near consistent.

Three months total rainfall was not available for other stations

Outlooks for July to September 2018:

1. SCOPIC:

Misima; the outlook shows normal as the most likely outcome with above normal the next most likely, with below normal is the least likely.

Wewak; outlook shows a near- equal likelihood of normal and above normal rainfall. Below normal is the least likely

All the monitoring stations; the outlook offers little guidance as the chances of below normal, normal and above normal are similar.

Confidence ranges from very low to very high skill

POAMA:

Daru; POAMA favours normal rainfall.

Wewak; the outlook favours above normal.

All other monitoring stations; the outlook favours below normal rainfall

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: $X \geq 35$