

Pacific Islands - Online Climate Outlook Forum (OCOF) No. 134

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Aug-2018	Sep-2018	Oct-2018				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
<b>Momase Region</b>							
Madang (1944-2018)	260.4	251.4	88.6	207.1	284.4	252.9	9/69
Nadzab (1973-2018)	73.5	157.0	43.8	71.0	114.0	97.4	9/44
Wewak (1894-2018)	116.0	135.2	158.0	191.5	265.6	223.2	11/63
Vanimos (1918-2018)	145.0	148.0	81.8	145.3	224.3	176.2	5/60
<b>Highlands Region</b>							
Goroka (1948-2018)	114.4	174.6	176.8	117.7	169.5	148.0	37/52
<b>New Guinea Islands Region</b>							
Momote (1949-2018)	299.0	268.2	174.6	183.0	265.0	227.7	20/65
Kavieng (1916-2018)	261.4	372.0	306.2	163.1	275.1	213.9	69/91
<b>Southern Region</b>							
Misima (1917-2018)	142.2						
Port Moresby (1875-2018)	79.4	47.2	9.8	10.1	32.2	18.7	39/121

**TABLE 2: Three-month Rainfall for August to October 2018**

Station	Three-month Total	33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities* based on NINO3.4 May-June 2018				Verification: Consistent, Near- consistent, Inconsistent?	
	Rainfall (mm)					B-N	N	A-N	LEPS		
<i>Momase Region</i>											
Madang (1944-2018)	600.4	Normal	392.4	607.1	471.9	48/69	38	39	23	26	Consistent
Nadzab (1973-2018)	274.3	Normal	267.8	391.9	335.8	9/44	34	33	33	2	Near-consistent
Wewak (1894-2018)	409.2	Below normal	500.1	655.0	573.0	11/63	35	41	24	25	Near-consistent
Vanimo (1918-2018)	374.8	Below normal	486.3	554.9	521.4	8/57	34	34	32	-2	Near-consistent
<i>Highlands Region</i>											
Goroka (1948-2018)	465.8	Above normal	276.0	382.6	338.9	37/52	33	33	34	-3	Near-consistent
<i>New Guinea Islands Region</i>											
Momote (1949-2018)	741.8	Normal	648.0	901.7	758.0	20/65	33	33	34	-1	Near-consistent
Kavieng (1917-2018)	939.6	Above normal	508.9	716.0	627.1	75/85	33	34	33	-2	Near-consistent
<i>Southern Region</i>											
Misima (1917-2018)			456.0	756.0	625.8		40	43	17	26	
Port Moresby (1875-2018)	136.4	Above normal	58.9	98.7	76.3	39/121	35	31	34	-1	Inconsistent

**TABLE 3: Seasonal Climate Outlooks using SCOPIC for December 2018 to February 2019**

Predictor and Period used: NINO3.4 for September to October 2018

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
<b>Momase Region</b>						
Madang (1944-2018)	35	1014.7	65		6	57
Nadzab(1973-2018)	40	489.0	60		3	58
Wewak (1894-2018)	61	412.0	39		6	57
Vanimo (1918-2018)	50	808.2	50		-2	14
<b>Highlands Region</b>						
Goroka (1948-2018)	50	702.0	50		-2	21
<b>New Guinea Islands Region</b>						
Momote (1949-2018)	44	819.2	56		1	54
Kavieng (1916-2018)	34	931.3	66		11	60
<b>Southern Region</b>						
Misima (1917-2018)	59	766.5	41		3	58
Port Moresby (1875-2018)	60	468.6	40		12	68

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 (1944-2018)	13	926.2	46	1103.8	41	10	48
Nadzab (1973-2018)	26	423.8	31	510.0	43	3	42
Wewak (1894-2018)	41	361.8	31	460.2	28	3	41
Vanimo (1918-2018)	31	718.6	36	918.0	33	-3	24
<b>Highlands Region</b>							
Goroka (1948-2018)	36	634.4	27	743.0	37	-2	19
<b>New Guinea Islands Region</b>							
Momote (1949-2018)	28	758.8	36	915.4	36	0	25
Kavieng (1916-2018)	15	841.1	45	989.9	40	10	44
<b>Southern Region</b>							
Misima (1917-2018)	39	676.7	36	877.4	25	1	27
Port Moresby (1875-2018)	47	421.5	34	558.8	19	12	43

**TABLE 4: Seasonal Climate Outlooks using POAMA2 for December 2018 to February 2019**

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
<b>Momase Region</b>					
Madang	27	940.0	28	1110.0	45
Nadzab	27	416.0	21	504.0	52
Wewak	36	381.0	16	461.0	48
<b>New Guinea Islands Region</b>					
Momote	30	753.0	30	872.0	40
Kavieng	33	846.0	9	956.0	58
<b>Southern Region</b>					
Misima	61	646.0	9	881.0	30
Port Moresby	55	423.0	9	508.0	36
Daru	5	634.0	80	804.0	15

## **Summary Statements**

### **Rainfall for October 2018:**

Below normal received across the country except Goroka and Kavieng received above normal.

### **Accumulated rainfall for August to October 2018, including outlook verification:**

Below normal rainfall was received at Vanimo and Wewak. Madang, Momote and Nadzab received normal rainfall whilst Goroka, Kavieng and Port Moresby received above normal rainfall.

Forecast was consistent at Madang, inconsistent at Port Moresby and near consistent at all other stations.

Three months total was not available for Misima.

### **Outlooks for December 2018 to February 2019:**

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

Wewak, Misima and Port Moresby: The outlook shows below normal as the most likely outcome, normal the next most likely and above normal is the least likely.

Madang and Kavieng: The outlook shows normal as the most likely outcome, with above normal the next most likely. Below normal is the least likely.

Nadzab: The outlook shows above normal the most likely outcome, normal the next most likely and below normal is the least likely outcome.

Goroka: Mixed outlook with similar chances for below normal and above normal, near normal is the least likely outcome.

Vanimo and Momote: The outlook offers little guidance as the chances of above normal, normal and below normal is similar.

Confidence range from very low to good.

## 2. POAMA:

The POAMA model favours below normal for Misima and Port Moresby. Normal favoured for Daru and above normal is favoured for the rest of the monitoring stations

### Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Country	Date: October 2018	Stakeholder	Total Number of Participants	Number of male	Number of female
PNG	October 31 <sup>st</sup> 2018	National Disaster Centre National Maritime Safety Authority, Department of Mineral Policy and Geohazards Management Department of Agriculture and Livestock, PNG Red Cross, National Agriculture Research Institute, Climate Change Development Authority, University of PNG, Pacific Adventist University, United Nations Development Program Department of Transport	35	23	12

The 4<sup>th</sup> Seasonal Forum is an institutional mechanism to integrate information from PNGNWS and relevant stakeholders for enhanced decision making. It has been ongoing for the last two years and the NCOF has also been incorporated in this forum. In the forum, stakeholders have shared their experiences during the last wet and dry seasons.

**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:  $X \geq 35$