Pacific Islands - Online Climate Outlook Forum (OCOF) No. 135

Country: Papua New Guinea

TABLE 1: Monthly Rainfall

Station (include data period)	Sep-2018	Oct-2018	Nov-2018				Rank
	Total (mm)	Total (mm)	Total (mm)	33%tile	67%tile	Median	
			Rainfall (mm)				
Momase Region							
Madang (1944-2018)	251.4	88.6	332.4	273.9	367.3	323.2	38/70
Nadzab (1973-2018)	157.0	43.8		80.0	120.6	85.8	
Wewak (1894-2018)	135.2	158.0	199.4	153.6	236.4	194.7	32/61
Vanimo (1918-2018)	148.0	81.8	243.4	161.5	235.6	199.8	45/62
Highlands Region							
Goroka (1948-2018)	174.6	176.4		132.0	180.7	157.0	
New Guinea Islands Region							
Momote (1949-2018)	268.2	174.6	336.2	193.0	288.0	245.8	53/65
Kavieng (1916-2018)	372.0	306.2	304.2	195.8	271.2	228.6	68/91
Southern Region							
Misima (1917-2018)	364.6	293.4	117.0	140.3	250.0	192.4	25/94
Port Moresby (1875-2018)	47.2	9.8	0.0	23.7	74.8	40.4	**2/121**

TABLE 2: Three-month Rainfall for September to November 2018

Station	Three-month Total		33%tile	67%tile	Median	Rank	SCOPIC forecast probabilities* based on NINO3.4 June-July 2018				Verification: Consistent, Near-consistent, Inconsistent?
	Rainfall (mm)						B-N	N	A-N	LEPS	
Momase Region											
Madang (1944-2018)	672.4	Normal	622.9	833.6	694.6	32/69	47	38	15	29	Near-consistent
Nadzab (1973-2018)			235.7	344.5	276.8		39	36	25	14	
Wewak (1894-2018)	492.6	Below normal	529.7	670.5	591.6	14/60	41	32	27	17	Consistent
Vanimo (1918-2018)	473.2	Below normal	493.1	629.9	537.4	29/63	38	35	27	6	Consistent
Highlands Region											
Goroka (1948-2018)			355.0	474.0	421.0		32	34	34	0	
New Guinea Islands Region											
Momote (1949-2018)	779.0	Normal	657.0	800.9	726.0	42/65	35	34	31	-2	Near-consistent
Kavieng (1917-2018)	982.4	Above normal	554.1	773.8	665.1	**82/89**	35	33	32	-2	Inconsistent
Southern Region											
Misima (1917-2018)	775.0	Normal	513.7	848.2	686.4	54/93	44	33	23	16	Near-consistent
Port Moresby (1875-2018)	57.0	Below normal	88.0	152.8	109.4	21/110	43	38	19	16	Consistent

TABLE 3: Seasonal Climate Outlooks using SCOPIC for January to March 2019

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

Station	Below Median (prob)	Median Rainfall (mm)	Above Median (prob)		LEPS (%) [whole numbers]	Hit-rate (%) [whole numbers]
Momase Region						
Madang (1944-2018)	27	951.8	73		16	64
Nadzab(1973-2018)	33	470.4	67		6	58
Wewak (1894-2018)	64	428.3	36		6	65
Vanimo (1918-2018)	40	868.2	60		3	58
Highlands Region						
Goroka (1948-2018)	35	716.6	65		7	64
New Guinea Islands Region						
Momote (1949-2018)	43	815.0	57		0	57
Kavieng (1916-2018)	30	950.0	70		11	62
Southern Region						
Misima (1917-2018)	65	785.4	35		6	60
Port Moresby (1875-2018)	64	574.1	36		5	63

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 (1944-2018)	13	894.0	46	1074.7	41	11	46
Nadzab (1973-2018)	17	434.0	40	525.8	43	8	49
Wewak (1894-2018)	46	367.2	31	455.5	23	5	45
Vanimo (1918-2018)	24	730.2	32	943.9	44	3	38
Highlands Region							
Goroka (1948-2018)	21	643.0	28	788.2	51	8	42
New Guinea Islands Region							
Momote (1949-2018)	29	764.4	27	924.2	44	1	39
Kavieng (1916-2018)	20	854.0	40	1012.6	40	3	30
Southern Region							
Misima (1917-2018)	48	714.3	33	931.3	19	8	45
Port Moresby (1875-2018)	43	504.6	33	638.8	24	4	46

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

Station	Below Normal (prob)	33%ile Rainfall (mm)	Normal (prob)	67%ile Rainfall (mm)	Above Normal (prob)
Momase Region					
Madang	30	910.0	28	1082.0	42
Nadzab	42	403.0	16	484.0	42
Wewak	42	368.0	22	441.0	36
New Guinea Islands Region					
Momote	39	724.0	25	837.0	36
Kavieng	36	853.0	28	987.0	36
Southern Region					
Misima	52	715.0	21	893.0	27
Port Moresby	45	520.0	22	651.0	33
Daru	5	718.0	37	872.0	58

Summary Statements

Rainfall for November 2018:

Below normal received for Southern region, normal for Wewak and Madang, above normal for Vanimo and New Guinea Islands. Port Moresby recorded 2 driest November in record.

Accumulated rainfall for September to November 2018, including outlook verification:

Below normal rainfall received for Port Moresby, Vanimo and Wewak. Madang, Misima and Momote received normal rainfall whilst Kavieng received above normal rainfall. Kaveing recorded 8th wettest September to November on record.

Forecast was consistent at Port Moresby, Vanimo and Wewak, near consistent at Madang, Misima and Momote and inconsistent at Kavieng.

Three months totals were not available for Goroka and Nadzab.

Outlooks for January to March 2019:

1. **SCOPIC:**

    Goroka: The outlook favours above normal with normal the next most likely

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

Momote and Vanimo: The outlook shows above normal as the most likely outcome with normal the next most likely outcome and below normal the least likely for Vanimo whilst below normal is the next most likely outcome and normal is the least likely for Momote.

Kavieng and Nadzab: The outlook shows near likelihood of normal and above normal. Below normal is the least likely.

Madang: the outlook shows normal as the most likely outcome with above normal the next most likely and below normal the least likely.

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2. **POAMA:**

POAMA model favours below normal rainfall for Misima and above normal rainfall for Daru.
For Wewak, Momote, and Port Moresby, forecast shows below normal as the most likely outcome with above normal the next most likely.
The outlook shows a near equal likelihood of below normal and above normal for Nadzab and little guidance for Kavieng as the chance of below normal and above normal are similar.

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

Country	Date: November 2018	Stakeholder	Total Number of Participants	Number of male	Number of female

NB: The X LEPS % score has been categorised as follows:

Very Low: X < 0.0   Low: 0 ≤ X < 5   Moderate 5 ≤ X < 10   Good: 10 ≤ X < 15   High: 15≤ X < 25

Very High: 25 ≤X < 35 Exceptional: X ≥ 35