

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 179

Country: Papua New Guinea

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	May-2022	Jun-2022	Jul-2022				
	Total (mm)	Total (mm)	Total (mm)	33%tile	67%tile	Median	Rank
			Rainfall (mm)				
Momase Region							
Madang (1944-2022)				103.8	183.0	142.0	
Nadzab (1973-2022)	68.4		25.0	83.1	154.0	118.6	4/48
Wewak (1956-2022)	75.2	202.6	149.0	149.1	207.6	177.3	23/67
Vanimo (1918-2022)	241.6	122.4	221.0	145.3	218.9	197.8	48/68
Highlands Region							
Goroka (1948-2022)	51.8	65.6		42.6	70.8	55.0	
New Guinea Islands Region							
Momote (1949-2022)	170.2	124.2	170.6	296.5	403.1	340.9	22/74
Kavieng (1916-2022)	39.0	145.4	92.2	182.6	275.5	219.2	7/97
Southern Region							
Misima (1917-2022)				91.0	190.6	139.7	
Port Moresby (1875-2022)	182.8	33.0	17.6	6.5	25.5	14.1	70/123

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 2: Three-month Total Rainfall for May to July 2022

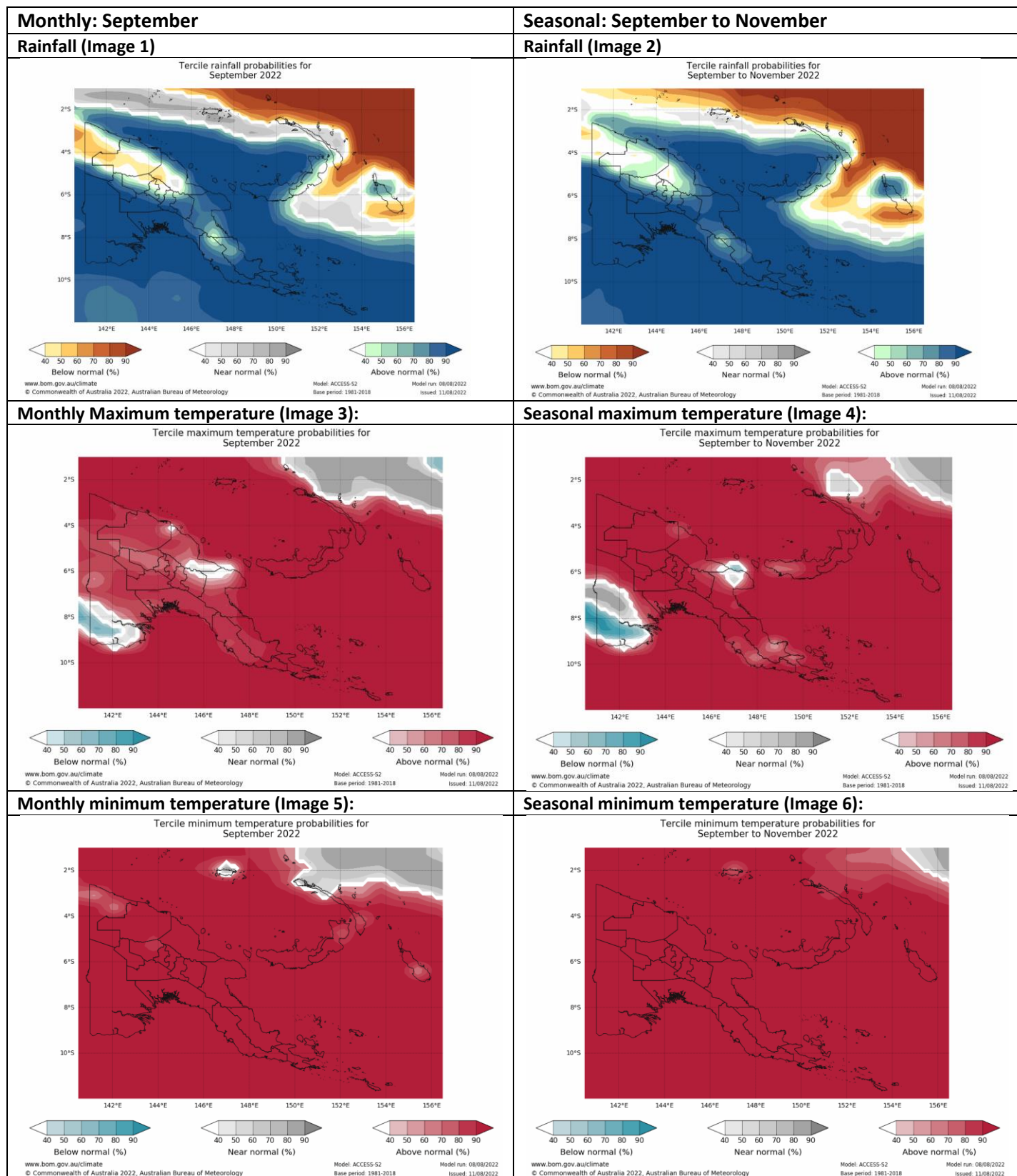
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Momase Region						
Madang (1944-2022)			636.1	813.3	743.2	
Nadzab (1973-2022)			274.8	372.8	319.1	
Wewak (1894-2022)	426.8	Below normal	549.7	695.9	630.0	11/67
Vanimo (1918-2022)	585.0	Normal	573.8	687.7	607.4	27/67
Highlands Region						
Goroka (1948-2022)			201.5	258.5	239.0	
New Guinea Islands Region						
Momote (1949-2022)	465.0	Below normal	793.2	1020.5	901.2	7/73
Kavieng (1917-2022)	276.6	Below normal	635.9	783.2	713.5	1/91
Southern Region						
Misima (1917-2022)			473.4	709.0	564.2	
Port Moresby (1875-2022)	233.4	Above normal	86.2	157.0	119.3	96/112

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Part 1i. Monthly and Seasonal Outlooks for September and September to November 2022



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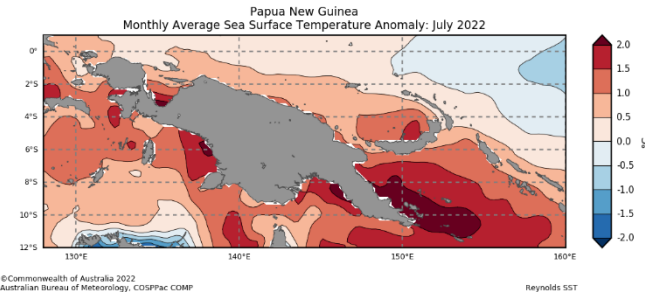
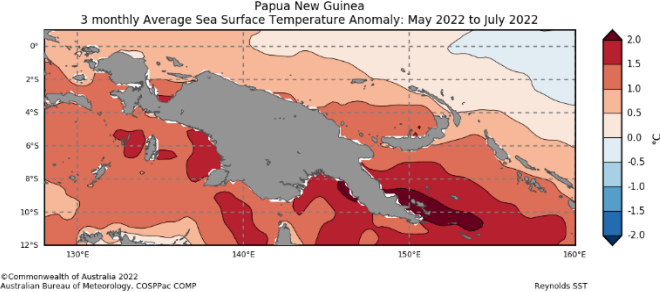
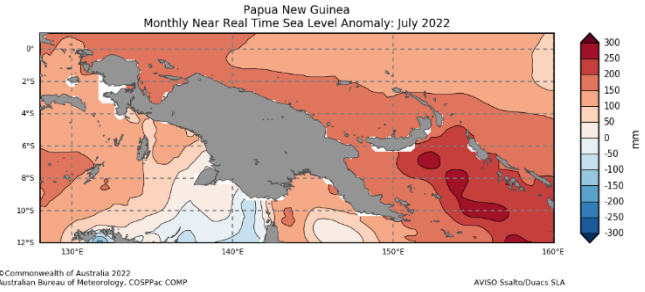
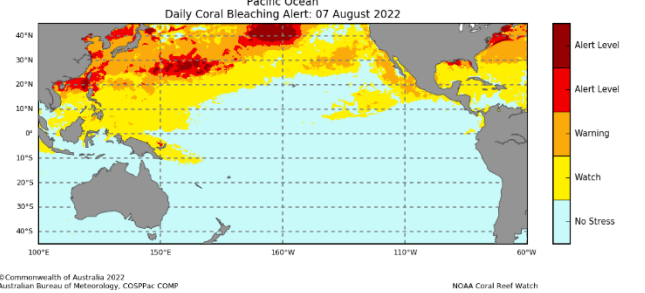
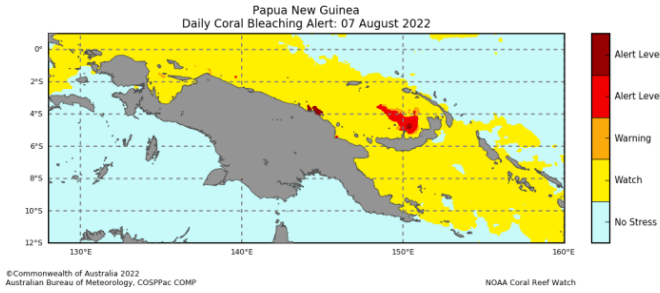
Good: $10 \leq X < 15$

High: $15 \leq X < 25$

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Part 2: Recent Ocean Observation

Monthly: July 2022

Monthly: July	Last three months: May to July 2022:
Sea Surface Temperature (Image 1): 	Sea Surface Temperature (Image 4): 
Sea level (Image 2): 	
Daily coral bleaching alert (Image 3): 	

Part 2i. Monthly and Seasonal Outlooks for September and September to November 2022

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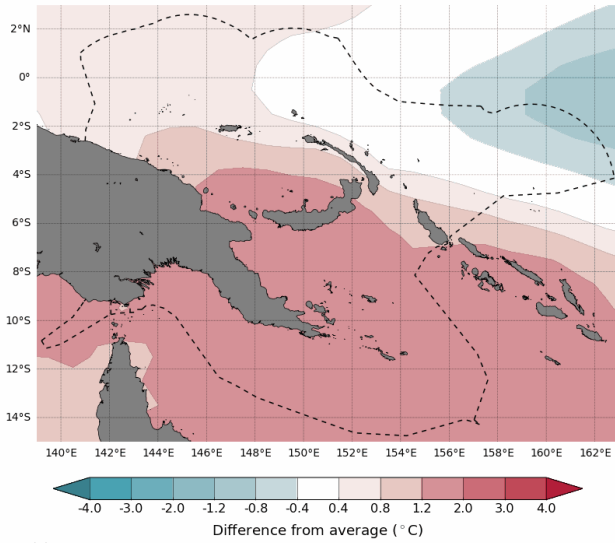
High: $15 \leq X < 25$

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Monthly: September

Monthly sea surface temperature (Image 5):

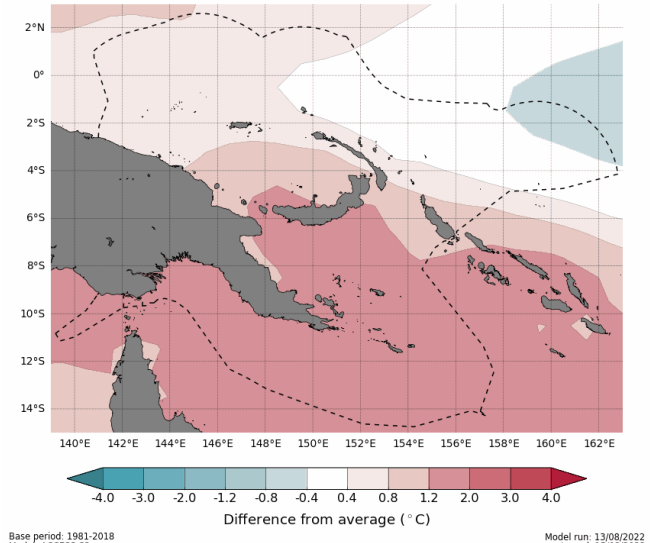
Difference from average sea surface temperature forecast for September 2022



Seasonal: September to November

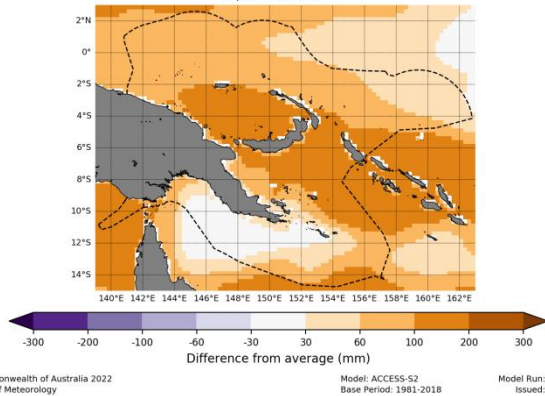
Seasonal sea surface temperature (Image 6):

Difference from average sea surface temperature forecast for September to November 2022



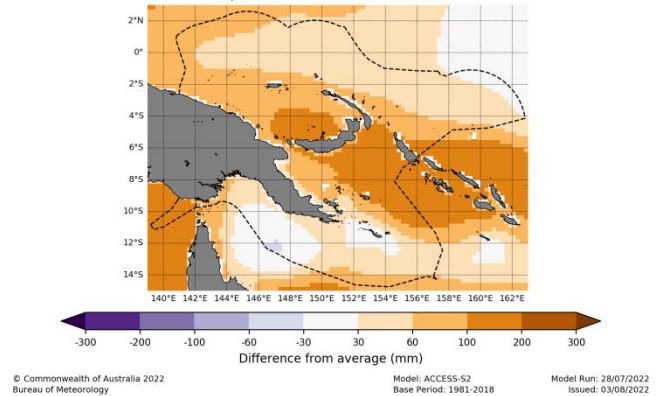
Monthly sea level (Image 7):

Difference from average sea surface height forecast for September 2022



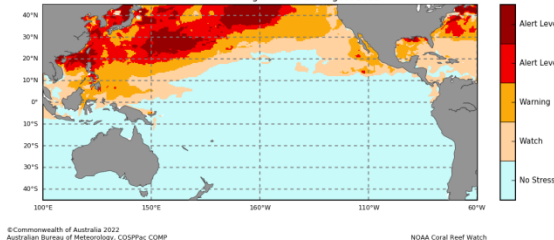
Seasonal sea level (Image 8):

Difference from average sea surface height forecast for September 2022 to November 2022

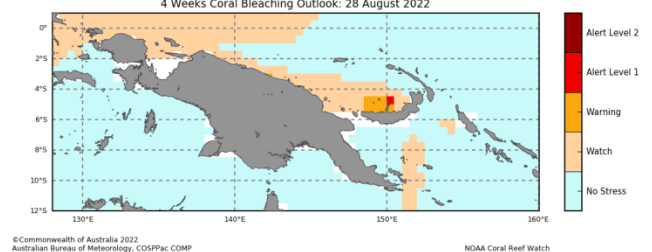


4-week Coral Bleaching (Image 9):

Pacific Ocean
4 Weeks Coral Bleaching Outlook: 28 August 2022



Papua New Guinea
4 Weeks Coral Bleaching Outlook: 28 August 2022



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Summary Statement

Monthly and last three months: July 2022/May to July 2022 statement (Highly significant changes)

Rainfall for July was below normal at Nadzab, Wewak, Momote, and Kavieng, above normal at Vanimo, and normal at Port Moresby. Nadzab recorded its fourth and Kavieng recorded its seventh driest July on record.

July rainfall data was not available for four monitoring stations.

Rainfall for May to July was below normal at Wewak, Momote and Kavieng, above normal at Port Moresby, and normal at Vanimo. Kavieng recorded its driest May to July on record, and Momote recorded its seventh-driest.

Part 1i. Monthly and Seasonal Outlooks for September and September to November 2022

Monthly /Seasonal rainfall and temperature Outlook statements (Highly significant changes)

September rainfall is likely to be above normal across the country except for Vanimo, Wewak, Madang and the southern Bougainville where below normal is likely. Manus and New Ireland are likely to experience near-normal rainfall.

September to November rainfall is likely to be above normal across the country, except for Manus and inland parts of Vanimo, Wewak and Madang, where the outlook offers little guidance. Southern Bougainville is likely to experience below normal rainfall.

Maximum temperatures for September and September to November are very likely to be above normal across the country, except for southern parts of Western which are likely to be below normal, and parts of Madang and Morobe which are likely to be near-normal.

Minimum temperatures for September and September to November are very likely to be above normal across PNG.

Part 2: Recent Ocean summary statement

Monthly and last three months: July/May to July 2022 (Highly significant changes)

PNG experienced above-average SSTs with significant patches of above normal SSTs at 1.5 to 2 degrees Celsius, whilst New Ireland experienced average SSTs in July and May to July.

The sea level anomaly was above normal in July with significant sea level anomaly ranging from 150 to 250mm above average for the Solomon Sea.

PNG has a 'Alert level 1' coral bleaching north of New Britain waters and a patch of 'Alert Level 2' coral bleaching in the Sepik waters.

Part 2i. Monthly and Seasonal Outlooks for September and September to November 2022

Ocean Variable statement (Highly significant changes)

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The monthly and seasonal outlook for the sea surface temperature shows above normal temperature difference of 0.8 to 2 degree celcius.

The sea level outlook shows above normal sea level difference of 30mm to 200mm for September and September to November.

The coral bleaching outlook shows a 'warning to alert level 1' status for the waters north of New Britain.

TABLE 3: Stakeholder Engagement- Evaluations of how effective NMS engage with stakeholders

Product	Date: July 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin	21st	Govt: National Disaster Centre, Dept. of Agriculture and Livestock, Climate Change Development Authority, National Agriculture Research Institute, Dept. of Transport, Dept. Of Mineral Policy and Geohazard Management, Dept. of Works, PNG Fire, National Maritime Safety Authority, Civil Aviation Safety Authority, PNG Forest Authority, National Capital District Commission, PNG Customs Authority, National Dept. Of Health, Dept. of Education, Centre for Environmental Protection Authority, Water PNG. UN agencies: UNDP, IOM, UNOCH. Private: PNG Air Services Limited, ExxonMobil, Ok Tedi Mining Ltd, PNG Power Ltd, Global Construction Ltd, Datec, InterOil, Air Niugini, Bank South Pacific, Kina Bank, SMEC, PNG Ports, Media and Universities.	172	132	40
Drought Early Warning Update	11th	WMO, BOM, UNDP, PNGNWS	12	8	4
CREWS Workshop	24th-25th	Ok Tedi, NARI, Fresh Produce, Geo-Hazards, Red Cross, Coffee Industry, World Vision, NCDC, Dept. of Transport, SPREP, China Engineering Ltd. BOM, WMO, PNGNWS	37	28	9
Climate data request		GHD, NCDC, China Civil Engineering Construction Corporation (PNG) Ltd, Unitech	8	2	6
Total			229	170	59

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