

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 177

Country: Papua New Guinea

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Mar-2022	Apr-2022	May-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Momase Region							
Madang (1944-2022)	296.6	515.2		299.7	409.8	333.8	
Nadzab (1973-2022)	101.2	100.6	68.4	67.3	103.3	74.0	17/48
Wewak (1956-2022)	63.6	106.6	75.2	178.9	272.9	223.1	4/67
Vanimo (1918-2022)	292.0	227.2	241.6	167.1	257.7	205.8	42/69
Highlands Region							
Goroka (1948-2022)	221.2	154.8		91.0	139.3	109.0	
New Guinea Islands Region							
Momote (1949-2022)	122.4	221.2	170.2	197.1	259.7	235.7	16/73
Kavieng (1916-2022)	265.8	299.4	39.0	200.0	294.9	246.0	1/92
Southern Region							
Misima (1917-2022)				187.6	311.2	247.0	
Port Moresby (1875-2022)	100.0	99.0	182.8	31.8	73.6	51.0	124/130

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 March to May 2022

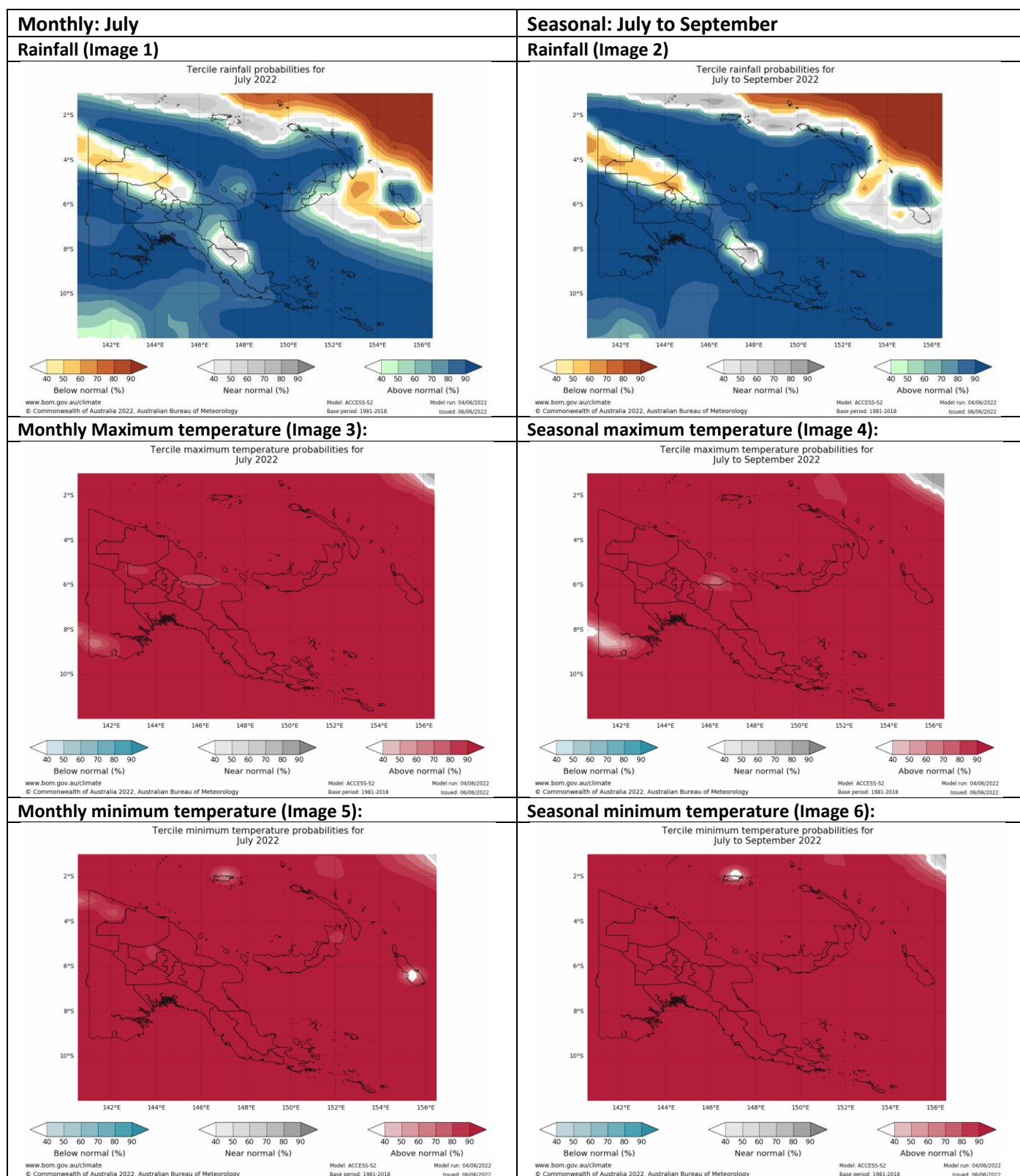
Station	Three-month Total	33%tile	67%tile	Median	Rank	
	Rainfall (mm)					
Momase Region						
Madang (1944-2022)			1000.2	1202.2	1130.2	
Nadzab (1973-2022)	270.2	Below normal	354.4	428.6	386.0	9/44
Wewak (1894-2022)	245.4	Below normal	511.7	648.7	604.1	3/64
Vanimo (1918-2022)	760.8	Normal	659.8	839.2	715.4	39/65
Highlands Region						
Goroka (1948-2022)			492.0	596.0	557.0	
New Guinea Islands Region						
Momote (1949-2022)	513.8	Below normal	717.7	916.0	826.4	3/71
Kavieng (1917-2022)	604.2	Below normal	799.0	945.2	862.8	12/89
Southern Region						
Misima (1917-2022)			698.1	955.6	781.8	
Port Moresby (1875-2022)	381.8	Normal	365.0	487.0	430.0	60/125

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



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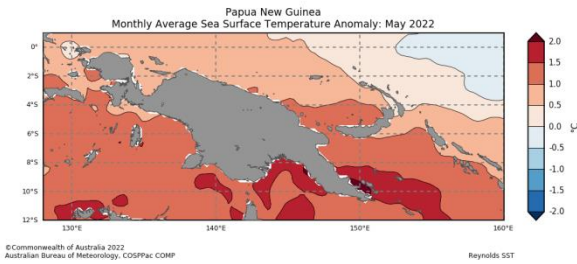
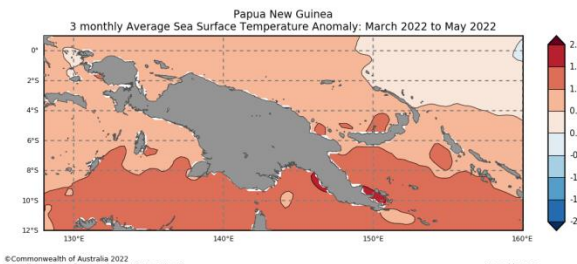
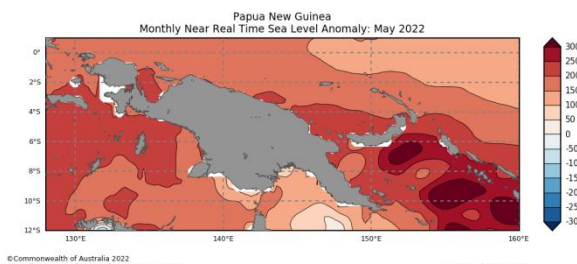
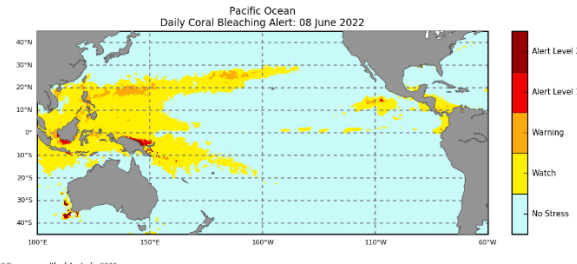
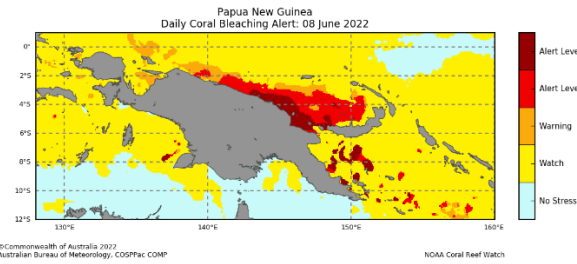
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Part 2: Recent Ocean summary statement

Monthly: May 2022

Monthly: May	Last three months: March to May 2022:
<p>Sea Surface Temperature (Image 1):</p> 	<p>Sea Surface Temperature (Image 4):</p> 
<p>Sea level (Image 2):</p> 	
<p>Daily coral bleaching alert (Image 3):</p> 	

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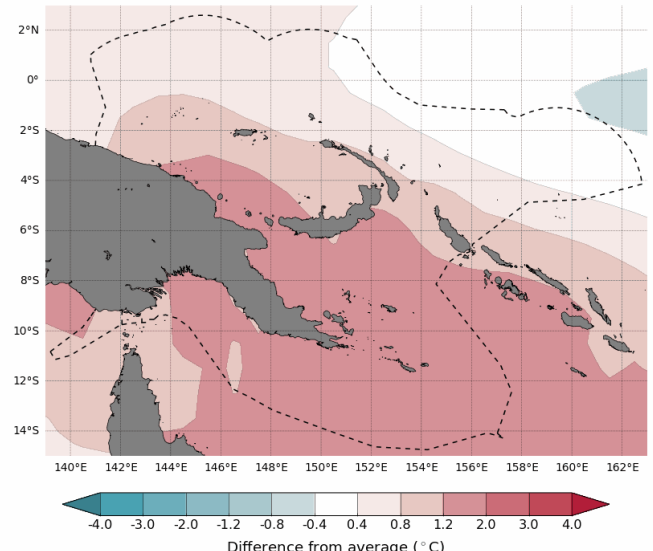
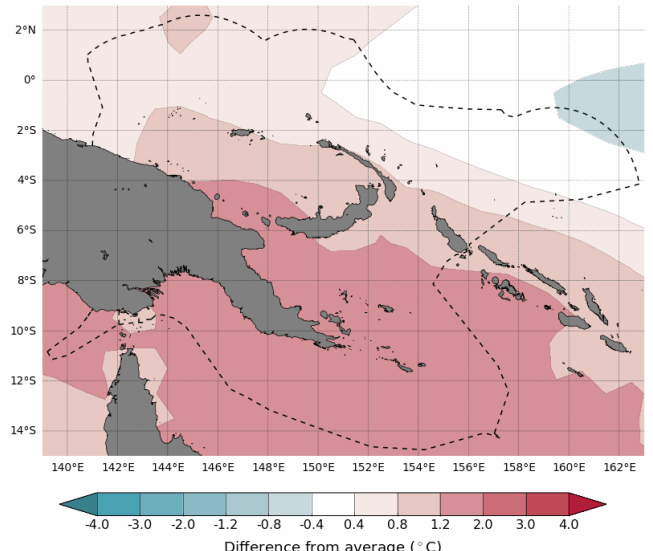
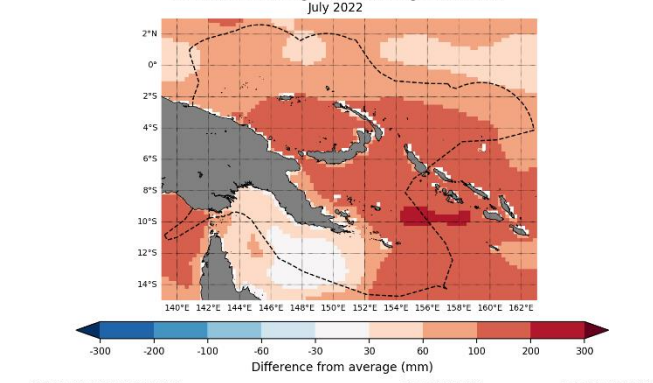
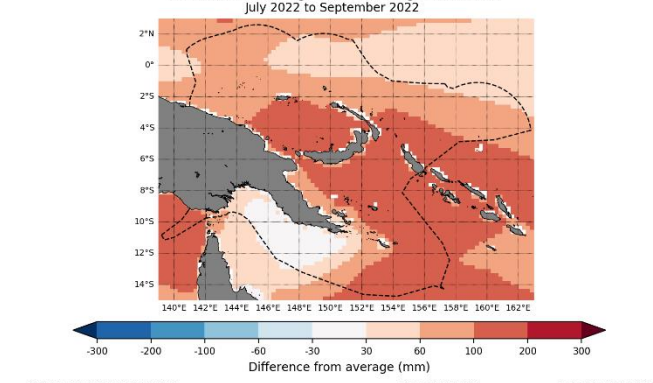
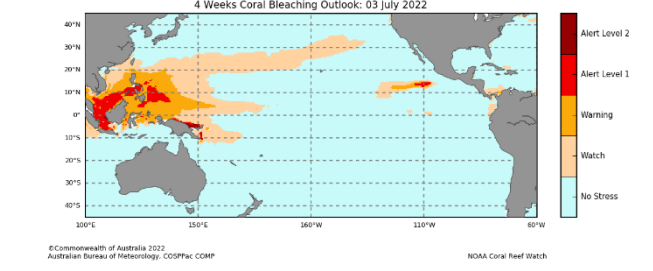
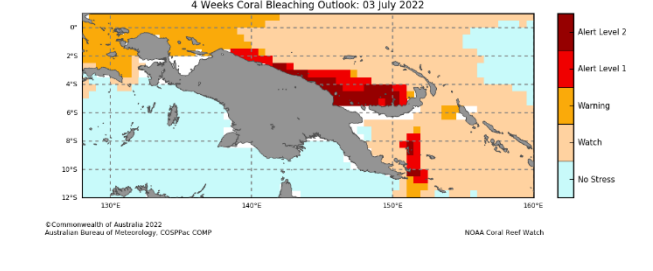
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Part 2i. Monthly and Seasonal Outlooks for July and July to September 2022

Monthly: July	Seasonal: July to September
Monthly sea surface temperature (Image 5): Difference from average sea surface temperature forecast for July 2022  Difference from average (°C) <small>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</small>	Seasonal sea surface temperature (Image 6): Difference from average sea surface temperature forecast for July to September 2022  Difference from average (°C) <small>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimerregions.org/</small>
Monthly sea level (Image 7): Difference from average sea surface height forecast for July 2022  Difference from average (mm) <small>© Commonwealth of Australia 2022 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/05/2022 Issued: 07/06/2022</small>	Seasonal sea level (Image 8): Difference from average sea surface height forecast for July 2022 to September 2022  Difference from average (mm) <small>© Commonwealth of Australia 2022 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/05/2022 Issued: 07/06/2022</small>
4-week Coral Bleaching (Image 9): Pacific Ocean 4 Weeks Coral Bleaching Outlook: 03 July 2022  <small>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP NOAA Coral Reef Watch</small>	4-week Coral Bleaching (Image 9): Papua New Guinea 4 Weeks Coral Bleaching Outlook: 03 July 2022  <small>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac COMP NOAA Coral Reef Watch</small>

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Summary Statement

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

Rainfall for May was below normal at Wewak and New Guinea Islands region, above normal at Port Moresby, and normal at Nadzab and Vanimo.

Nadzab received its fourth and Kavieng received its first driest May on record. Port Moresby recorded its seventh wettest May on record.

May rainfall data is not available for Madang, Goroka, and Misima.

Rainfall for March to May was below normal across the country, except Vanimo and Port Moresby with normal rainfall.

Wewak and Momote recorded their third driest March to May on record.

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

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

The rainfall outlook for July is likely to be below normal for Vanimo, Wewak, Madang, and the southern part of Bougainville. Above normal is very likely for Western, Central, Highlands, parts of Morobe, Milne Bay, New Ireland, and New Britain. Normal is likely for Momote.

The rainfall outlook for July to September for PNG is very likely to be above normal except Vanimo, Wewak, and Madang are likely to be below normal and the southern part of Bougainville is likely to be normal.

The maximum and minimum temperature outlook for July and July to September is very likely to be above normal.

Part 2: Recent Ocean summary statement

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

PNG experienced above-average SSTs with significant patches of above-normal SSTs at 1.5 to 2 degrees Celsius near Port Moresby in Central and Oro Provinces, whilst New Ireland experienced average SSTs in May and March to May.

The sea level anomaly was above normal in May with significant sea level anomaly ranging from 150 to 300mm above average for the Solomon Sea.

PNG has a 'warning to alert level 2' coral bleaching for the Bismarck Sea.

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

Ocean Variable statement *(Highly significant changes)*

The sea surface temperature outlook shows above-normal temperature differences of 0.4 to 2 degrees Celsius for July and July to September, with significant temperature differences expected in most of the surrounding waters of PNG.

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

The coral bleaching outlook shows a 'warning to alert level 2' status for the Bismarck and Solomon Seas.

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

Product	Date: May 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing					
Ocean Outlook					
Climate data request		SMEC International, UPNG Students,	6	1	5
Total			6	1	5

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