

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 180

Country: Papua New Guinea

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Jun-2022	Jul-2022	Aug-2022					Rank
			Total (mm)	33%tile	67%tile	Median		
	Total (mm)	Total (mm)	Rainfall (mm)					
Momase Region								
Madang (1944-2022)				60.0	412.8	100.5		
Nadzab (1973-2022)		25.0	75.0	83.1	151.8	112.8	15/49	
Wewak (1956-2022)	202.6	149.0	287.2	117.1	209.7	143.8	60/67	
Vanimo (1918-2022)	122.4	221.0	81.6	139.2	193.8	167.3	6/67	
Highlands Region								
Goroka (1948-2022)	65.6			48.5	84.0	64.0		
New Guinea Islands Region								
Momote (1949-2022)	124.2	170.6	136.6	223.9	337.2	278.2	10/73	
Kavieng (1916-2022)	145.4	92.2	76.6	160.6	254.2	206.0	7/91	
Southern Region								
Misima (1917-2022)				80.5	165.1	109.6		
Port Moresby (1875-2022)	33.0	17.6	48.4	9.2	31.6	14.8	107/123	

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 June to August 2022

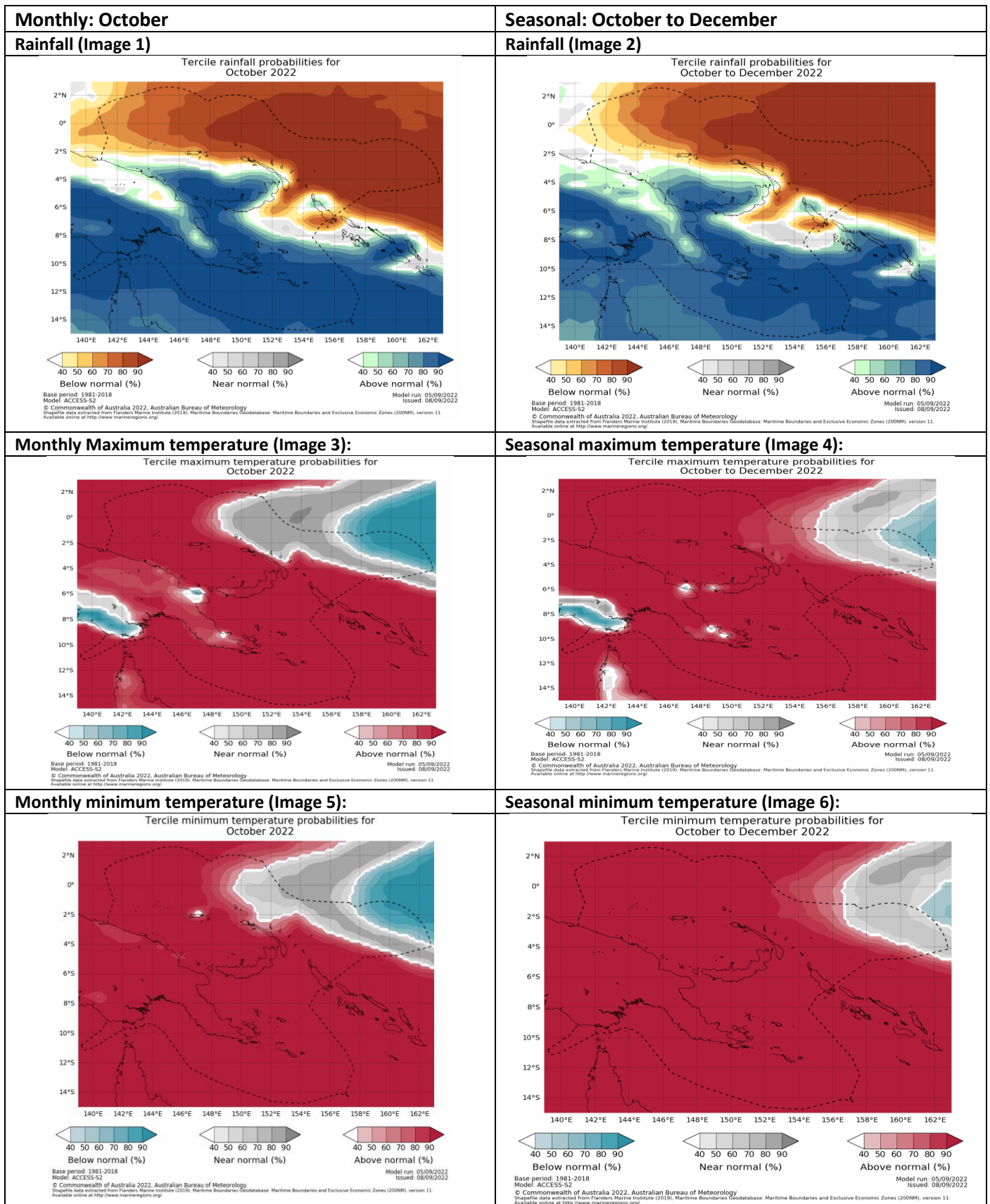
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Momase Region						
Madang (1944-2022)			403.2	546.9	473.0	
Nadzab (1973-2022)			295.0	424.3	329.0	
Wewak (1894-2022)	638.8	Above normal	487.0	619.1	560.1	47/67
Vanimo (1918-2022)	425.0	Below normal	517.0	632.5	563.5	12/65
Highlands Region						
Goroka (1948-2022)			169.5	242.5	189.2	
New Guinea Islands Region						
Momote (1949-2022)	431.4	Below normal	754.3	1063.5	943.3	1/72
Kavieng (1917-2022)	314.2	Below normal	569.3	781.1	702.2	4/91
Southern Region						
Misima (1917-2022)			341.3	548.0	481.8	
Port Moresby (1875-2022)	99.0	Normal	55.9	111.6	87.2	67/109

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Part 1i. Monthly and Seasonal Outlooks for October and October to December 2022



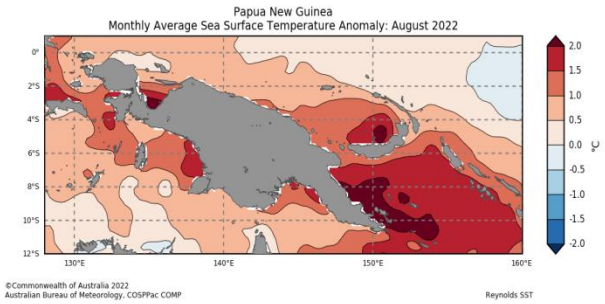
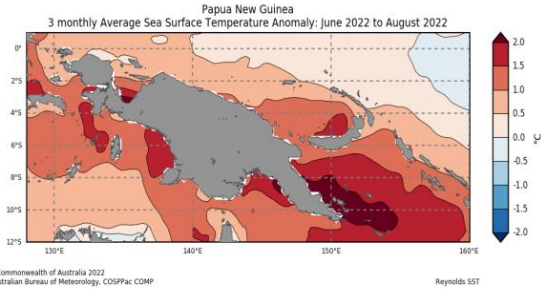
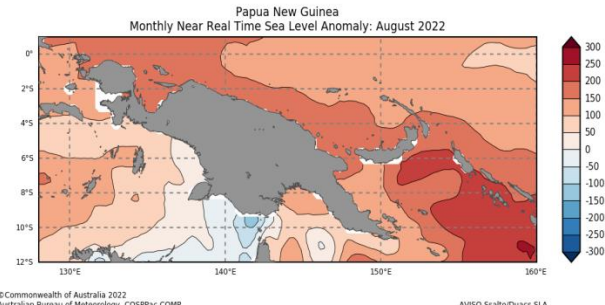
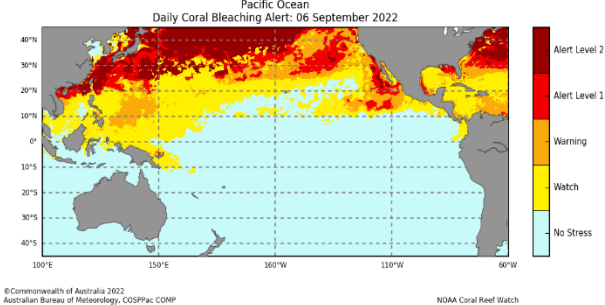
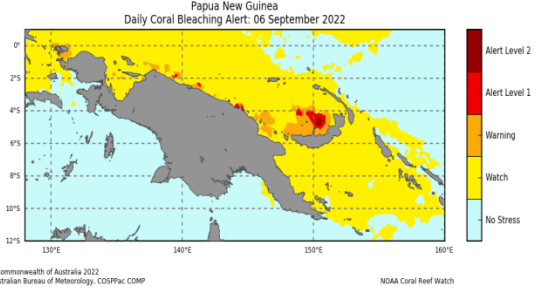
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Part 2: Recent Ocean Observation

Monthly/Three months: August 2022 and June to August 2022

Monthly: August	Last three months: June to August 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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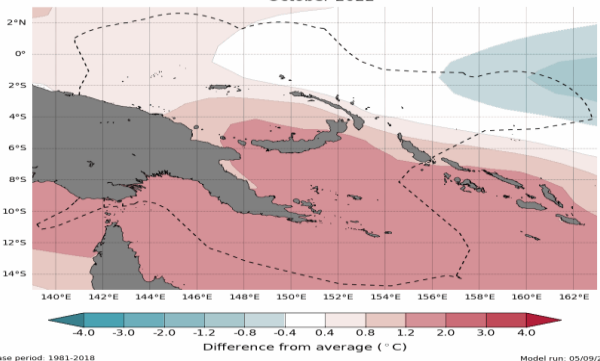
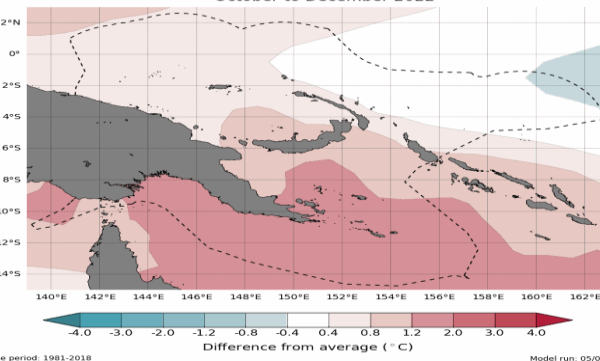
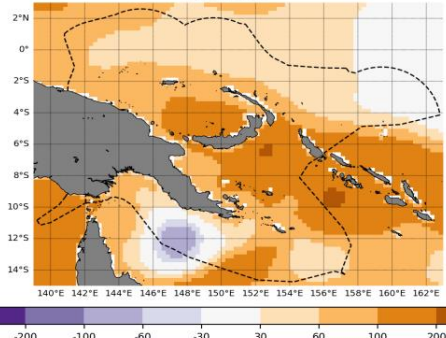
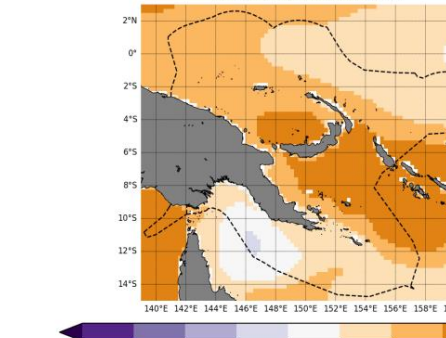
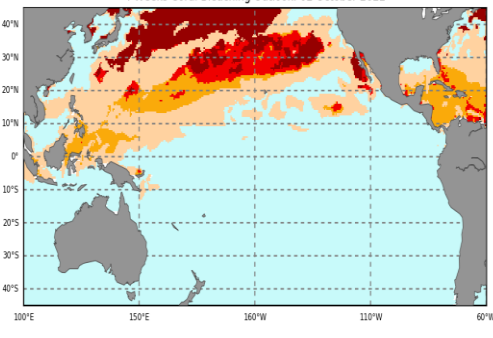
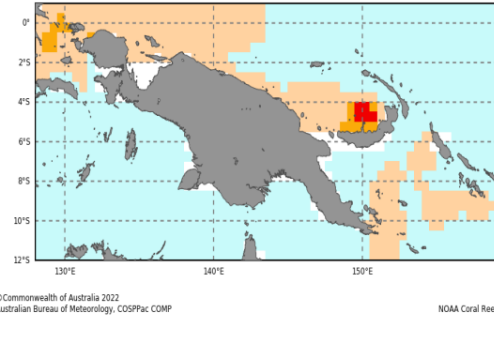
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Part 2i. Monthly and Seasonal Outlooks for October and October to December 2022

Monthly: October	Seasonal: October to December
<p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for October 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Product: 2022-09-09 10:00 AM AEST Model run: 05/09/2022 Issued: 07/09/2022</p>	<p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for October to December 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Product: 2022-09-09 10:00 AM AEST Model run: 05/09/2022 Issued: 07/09/2022</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for October 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/08/2022 Issued: 06/09/2022</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for October 2022 to December 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology Model: ACCESS-S2 Base Period: 1981-2018 Model Run: 28/08/2022 Issued: 06/09/2022</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 02 October 2022</p>  <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP NOAA Coral Reef Watch</p>	<p>Papua New Guinea 4 Weeks Coral Bleaching Outlook: 02 October 2022</p>  <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP NOAA Coral Reef Watch</p>

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Summary Statement

Monthly and last three months: August 2022/June to August 2022 statement (Highly significant changes)

Rainfall for August was below normal across the country except Wewak and Port Moresby with above normal rainfall. Vanimo and Kavieng recorded their sixth and seventh driest August on record respectively.

Data was not available for three monitoring stations.

Rainfall for June to August was normal at Port Moresby, above normal at Wewak whilst below normal recorded at all other monitoring stations. Momote and Kavieng recorded their driest and fourth driest June to August on record respectively.

Data was not available for Goroka, Madang, Nadzab and Misima.

Part 1i. Monthly and Seasonal Outlooks for October and October to December 2022

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

The October rainfall outlook for New Ireland, Momote and South Bougainville is very likely to be below normal whilst the forecast offers little guidance at Vanimo, Wewak and Madang. Above normal rainfall is most likely for rest of the country.

The outlook for PNG for October to December is very likely to be above normal except Momote, New Ireland, East New Britain and South Bougainville where the forecast is very likely to be below normal.

The maximum and minimum temperature outlook for PNG for October and October to December is very likely to be above normal except Western Province where the forecast is likely to be below normal.

Part 2: Recent Ocean summary statement

Monthly and last three months: August/June to August 2022 (Highly significant changes)

In August, most of PNG experienced above average SSTs ranging from 0.5 to 2.00 Degree Celsius. There are significantly above normal SSTs at 1.0 to 2.0 degree Celsius around the coastal waters of Northern, eastern coastline of Milne Bay, and northern waters of West New Britain province.

The last months, June to August shows that PNG experienced above average SSTs, up to 1.00 to 2.0 degrees Celsius mostly in the north east of Northern province, north to southeast of Milne Bay, northern water of West New Britain, coastline of Gulf and Western provinces.

The sea level anomaly for PNG in August was above normal, with significant sea level anomaly ranging from 100 to 150mm above average in the northern parts of the country.

PNG has a 'warning to alert level 1' coral bleaching alert status for the Northern waters of East and west New Britain.

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Part 2i. Monthly and Seasonal Outlooks for October and October to December 2022

Ocean Variable statement *(Highly significant changes)*

The outlook for sea surface temperature for PNG shows above normal temperature differences of 0.4 to 1.2°C for October and October to December, with significant temperature differences located coastal water of East and West New Britain, Gulf, Western, Central, Milne Bay, and Northern provinces.

The outlook for October and October to December for sea level in PNG shows above normal sea level, ranging from 30mm to 100mm mostly in the northern parts of PNG.

The outlook for coral bleaching for PNG shows a 'watch' status for northern waters of East and West New Britain provinces.

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

Product	Date: August 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Climate Bulletin					
EAR Watch					
Monthly Climate Briefing					
Ocean Outlook					
Climate data request					
Total					

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