

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 187

Country: Papua New Guinea

## Part 1: Recent climate

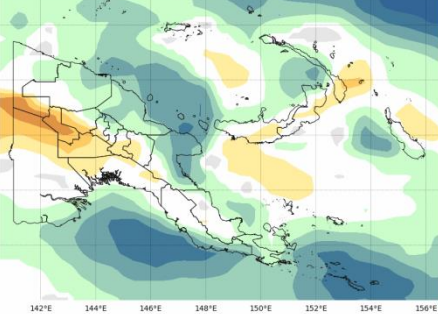
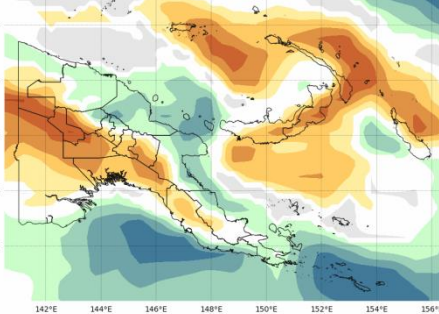
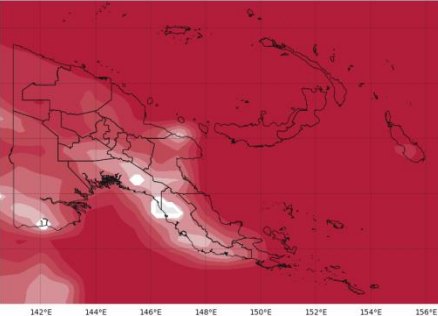
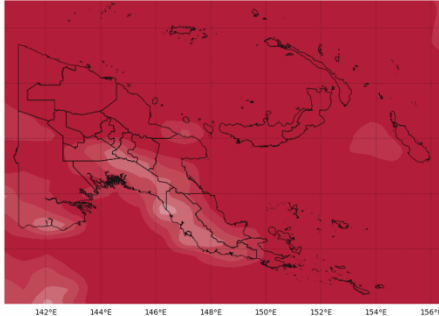
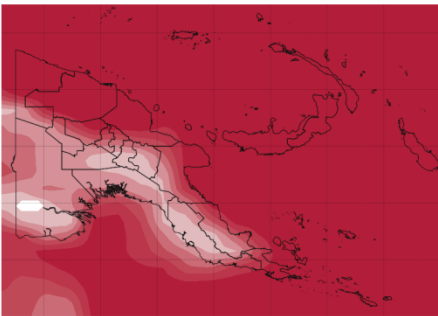
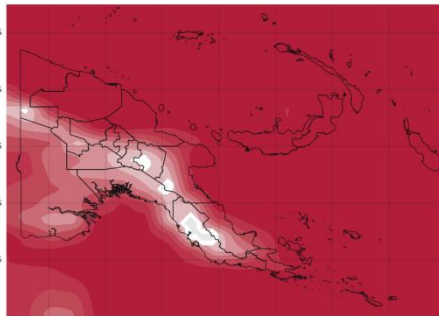
**TABLE 1: Monthly Rainfall**

Station (include data period)	Jan-2023	Feb-2023	Mar-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
	Momase Region						
Madang (1944-2023)				309.7	401.3	343.6	
Nadzab (1973-2023)	45.6	233.8	25.6	141.0	201.8	157.7	2/47
Wewak (1956-2023)	116.2	255.0	137.0	130.7	183.2	153.4	28/67
Vanimo (1918-2023)	186.6	367.8	145.4	215.3	356.7	279.2	7/70
Highlands Region							
Goroka (1948-2023)	127.6	225.0	172.0	210.5	277.1	241.0	16/62
New Guinea Islands Region							
Momote (1949-2023)	163.0	430.0	136.2	267.4	333.7	295.1	5/72
Kavieng (1916-2023)	238.8	301.1	376.0	269.7	371.7	326.3	66/91
Southern Region							
Misima (1917-2023)				215.0	321.0	254.1	
Port Moresby (1875-2023)	204.2	188.2	132.2	160.0	276.0	216.0	42/135

**TABLE 2: Three-month Total Rainfall for January to March 2023**

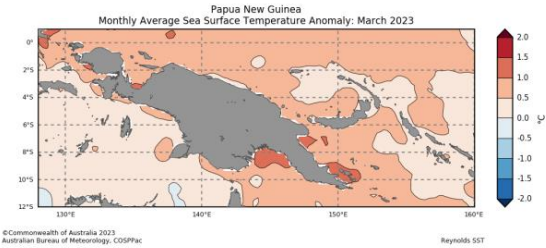
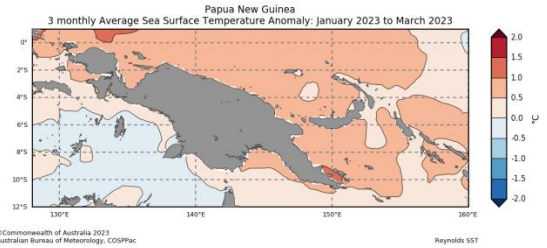
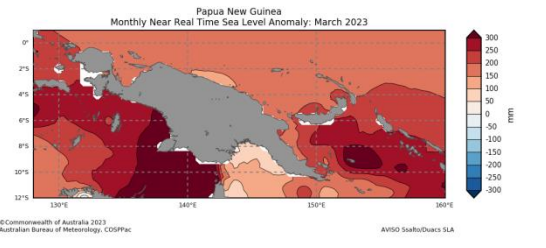
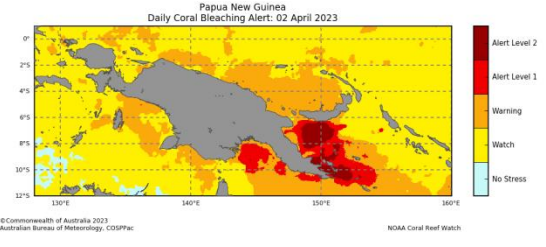
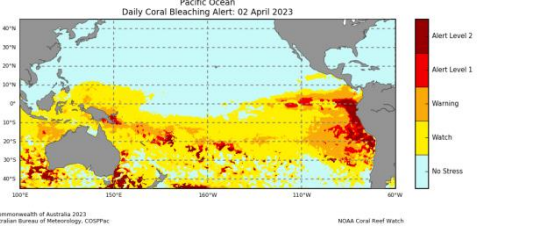
Station	Three-month Total	33%tile	67%tile	Median	Rank	
	Rainfall (mm)					
Momase Region						
Madang (1944-2023)			897.6	1083.0	975.8	
Nadzab (1973-2023)	305.0	Below normal	436.7	525.8	470.4	4/46
Wewak (1894-2023)	508.2	Above normal	374.8	454.4	428.3	56/67
Vanimo (1918-2023)	699.8	Below normal	778.4	1003.2	883.5	17/67
Highlands Region						
Goroka (1948-2023)	524.6	Below normal	614.7	780.0	709.5	8/58
New Guinea Islands Region						
Momote (1949-2023)	729.2	Below normal	751.3	881.1	804.6	20/72
Kavieng (1917-2023)	915.9	Normal	838.8	987.1	918.6	39/88
Southern Region						
Misima (1917-2023)			697.9	908.3	783.3	
Port Moresby (1875-	524.6	Below	536.0	680.6	607.8	52/135

Part 1i. Monthly and Seasonal Outlooks for May and May to July 2023

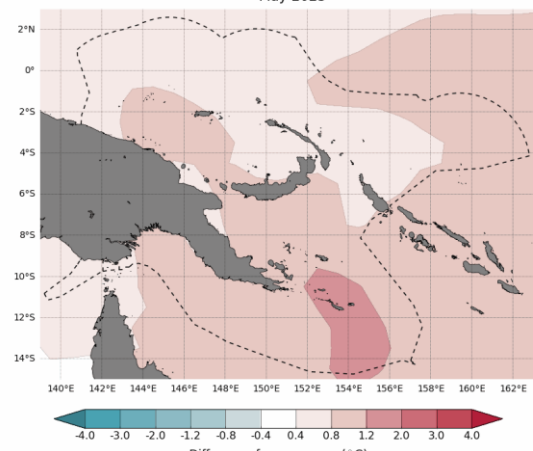
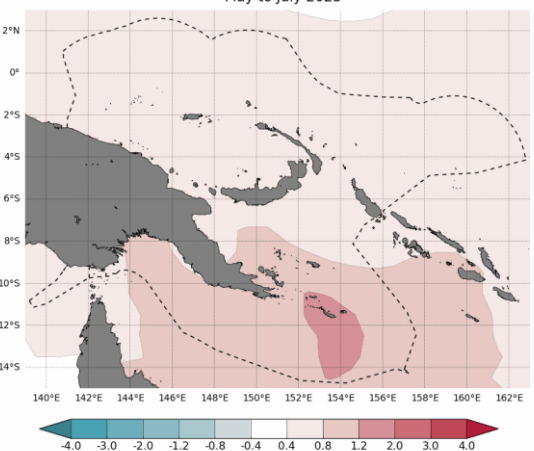
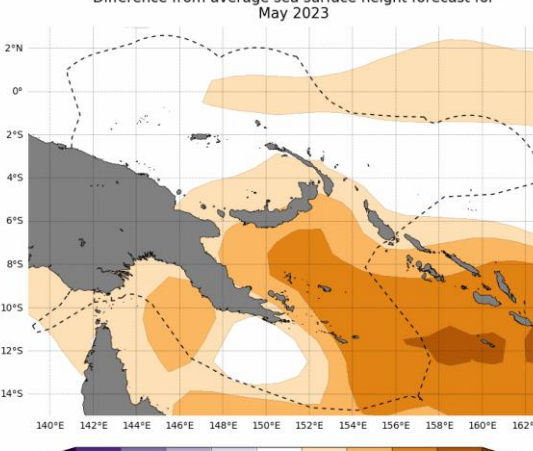
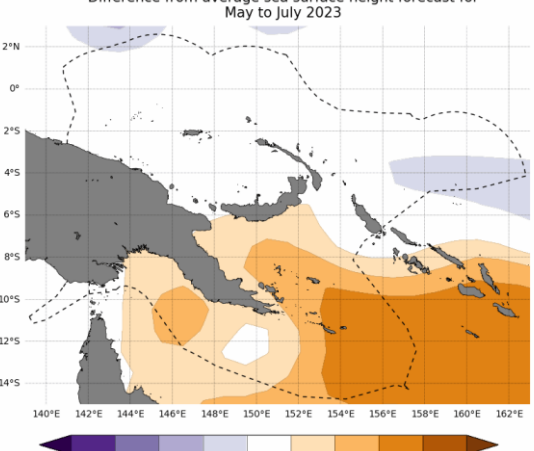
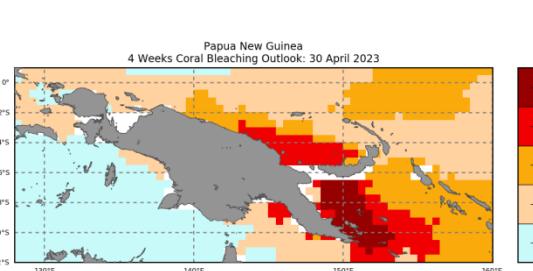
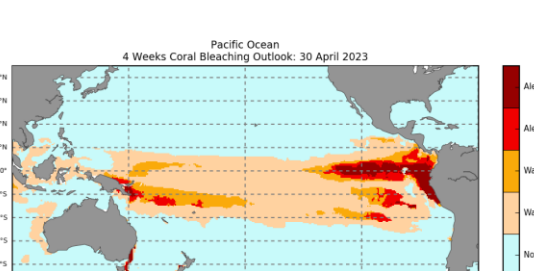
Monthly: May	Seasonal: May to July
<div><p><b>Rainfall (Image 1)</b></p><p>Tercile rainfall probabilities for May 2023</p><p>Model: ACCESS-S2 Base period: 1961-2018 Model run: 01/04/2023 Issued: Map not issued</p></div>	<div><p><b>Rainfall (Image 2)</b></p><p>Tercile rainfall probabilities for May to July 2023</p><p>Model: ACCESS-S2 Base period: 1961-2018 Model run: 01/04/2023 Issued: Map not issued</p></div>
<div><p><b>Monthly Maximum temperature (Image 3):</b></p><p>Tercile maximum temperature probabilities for May 2023</p><p>Model: ACCESS-S2 Base period: 1961-2018 Model run: 01/04/2023 Issued: Map not issued</p></div>	<div><p><b>Seasonal maximum temperature (Image 4):</b></p><p>Tercile maximum temperature probabilities for May to July 2023</p><p>Model: ACCESS-S2 Base period: 1961-2018 Model run: 01/04/2023 Issued: Map not issued</p></div>
<div><p><b>Monthly minimum temperature (Image 5):</b></p><p>Tercile minimum temperature probabilities for May 2023</p><p>Model: ACCESS-S2 Base period: 1961-2018 Model run: 01/04/2023 Issued: Map not issued</p></div>	<div><p><b>Seasonal minimum temperature (Image 6):</b></p><p>Tercile minimum temperature probabilities for May to July 2023</p><p>Model: ACCESS-S2 Base period: 1961-2018 Model run: 01/04/2023 Issued: Map not issued</p></div>

## Part 2: Recent Ocean Observation

### Monthly/Three months: March and January to March 2023

Monthly: March	Last three months: January to March 2023:
<p><b>Sea Surface Temperature (Image 1):</b></p> 	<p><b>Sea Surface Temperature (Image 4):</b></p> 
<p><b>Sea level (Image 2):</b></p> 	
<p><b>Daily coral bleaching alert (Image 3):</b></p> 	

## Part 2i. Monthly and Seasonal Outlooks for May and May to July 2023

Monthly: May	Seasonal: May to July
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for May 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimengins.org/">http://www.maritimengins.org/</a></p> <p>Model run: 10/04/2023 Issued: 12/04/2023</p>	<p>Difference from average sea surface temperature forecast for May to July 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimengins.org/">http://www.maritimengins.org/</a></p> <p>Model run: 10/04/2023 Issued: 12/04/2023</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for May 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimengins.org/">http://www.maritimengins.org/</a></p> <p>Model run: 10/04/2023 Issued: 12/04/2023</p>	<p>Difference from average sea surface height forecast for May to July 2023</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimengins.org/">http://www.maritimengins.org/</a></p> <p>Model run: 10/04/2023 Issued: 12/04/2023</p>
4-week Coral Bleaching (Image 9):	
<p>Papua New Guinea 4 Weeks Coral Bleaching Outlook: 30 April 2023</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>	<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 30 April 2023</p>  <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>

## Summary Statement

### Monthly and last three months: March 2023/January to March 2023 statement

Rainfall for March was above normal at Kavieng, normal at Wewak and below normal for the rest of the monitoring stations. Nadzab, Vanimo and Momote posted their second, seventh and fifth driest March on record, respectively.

March rainfall was not available for Madang and Misima.

Rainfall for January to March was above normal at Wewak, normal at Kavieng and below normal for the rest of the monitoring stations. Nadzab and Goroka had their fourth and eighth driest January to March on record, respectively.

## Part 1i. Monthly and Seasonal Outlooks for May and May to July 2023

### Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for May is likely to be above normal over East Sepik, Madang, Morobe, Misima and parts of Central, Western, and New Ireland. Near-normal to below normal is likely for the Highlands region, parts of Western, West Sepik, New Britain and New Ireland.

The rainfall for May to July is likely to be below normal for the New Guinea Islands region, the Highlands region, Western, Gulf and parts of West Sepik, Morobe and Central. Near normal to above normal for East Sepik, Madang, Misima and parts of Morobe, Oro and West Sepik.

Maximum and minimum temperatures during May are likely to be near normal over the Southern Region and above normal for the rest of the country.

Maximum and temperatures average over May to July are likely to be above normal over PNG while minimum temperatures are likely to be near normal over Central, Gulf, parts of the Highlands region and Morobe.

## Part 2: Recent Ocean summary statement

### Monthly and last three months: March 2023/January to March 2023

March ocean temperatures around PNG were 0.5°C to 1.5°C above normal.

Averaged over January to March, ocean temperatures around PNG were 0.5 to 1.5°C above normal.

March sea levels around PNG were 50mm to 300mm above normal.

PNG has a 'Alert Level 2' coral bleaching status over the western Solomon Sea. 'Watch to Warning' status for most of PNG

## Part 2i. Monthly and Seasonal Outlooks for May and May to July 2023

### Ocean Variable statement

May ocean temperatures around PNG are predicted to be 0.4 to 1.2°C above normal.

Averaged over May to July, ocean temperatures around PNG are predicted to be 0.4 to 1.2°C above normal.

May sea levels around PNG are predicted to be 30mm to 200mm above normal.

Averaged over May to July, sea levels around PNG are predicted to be 30mm to 100mm above normal.

The four-week coral bleaching outlook to 30 April shows PNG has a 'Alert level 2' status for the western Solomon Sea. 'Watch to Alert level 1' status for most of PNG.

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

Product	Date: March 2023	Stakeholder	Total Number of Participants	Number of male	Number of female
Seasonal Climate Outlook	18 <sup>th</sup>	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.	154	110	44
Drought Update	16th	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	120	75	45

		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			
Ok Tedi Brief	11th	OTML	11	8	3
Climate data request		WaterPNG	3	3	1
<b>Total</b>			<b>288</b>	<b>196</b>	<b>93</b>