

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 195

Country: Vanuatu

## Part 1: Recent climate

**TABLE 1: Monthly Rainfall**

Station (include data period)	Sep-2023	Oct-2023	Nov-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Northern Region							
Sola (1971-2023)	55.8	182.0	267.8	300.7	491.9	422.0	16/51
Pekoa (1971-2023)	45.9	156.6	33.7	126.1	220.7	189.3	3/53
Lamap (1961-2022)				91.5	147.0	120.9	
Southern Region							
Bauerfield (1972-2023)	236.7	126.3	72.4	105.1	181.1	135.0	14/51
Port Vila (1953-2023)			47.5	74.8	159.3	118.9	14/71
Whitegrass (1972-2023)	74.6	39.6	7.3	30.2	85.3	49.7	7/53
Aneityum (1952-2023)	98.7	194.6	25.2	59.4	148.0	107.5	4/72

**TABLE 2: Three-month Total Rainfall for September to November 2023**

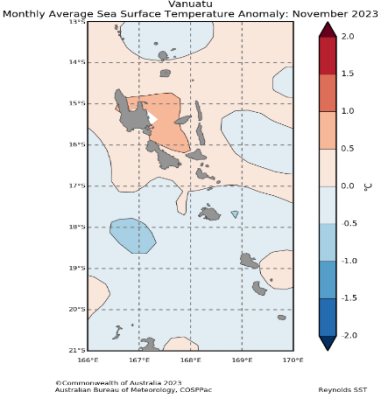
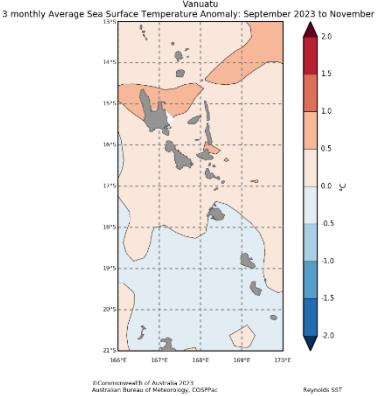
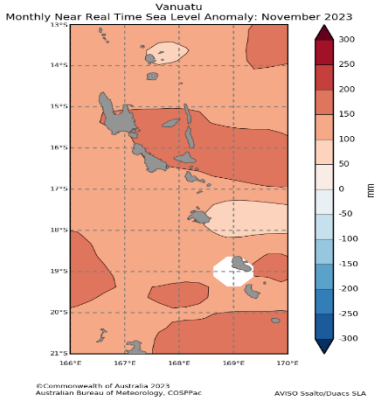
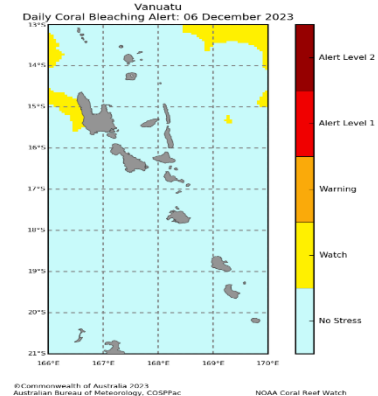
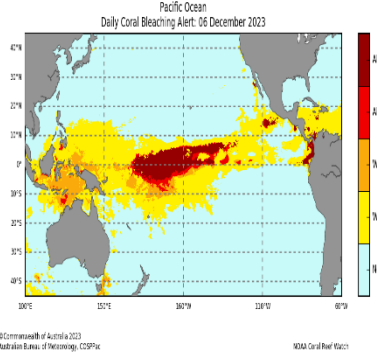
Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Northern Region						
Sola (1971-2023)	505.6	Below normal	871.1	1190.9	1024.4	8/50
Pekoa (1971-2023)	236.2	Below normal	339.5	530.6	449.1	12/53
Lamap (1961-2023)			286.2	414.9	340.0	
Southern Region						
Bauerfield (1972-2023)	435.4	Normal	240.0	454.9	359.1	33/51
Port Vila (1953-2023)			239.7	400.6	311.5	
Whitegrass (1972-2023)	121.5	Normal	117.9	225.7	157.1	20/51
Aneityum (1952-2023)	318.5	Normal	266.5	426.3	353.3	31/72

Part 1i. Monthly and Seasonal Outlooks for January and January to March 2024

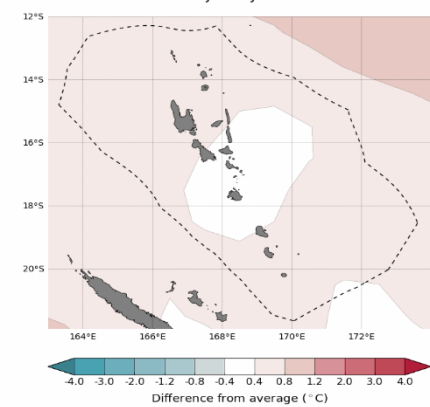
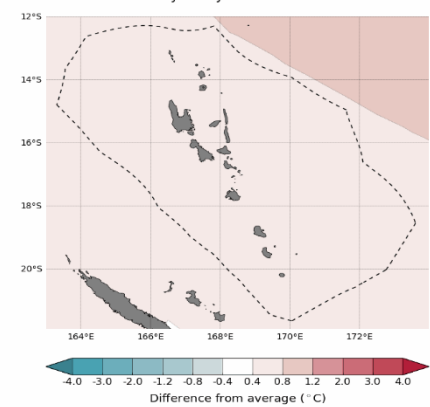
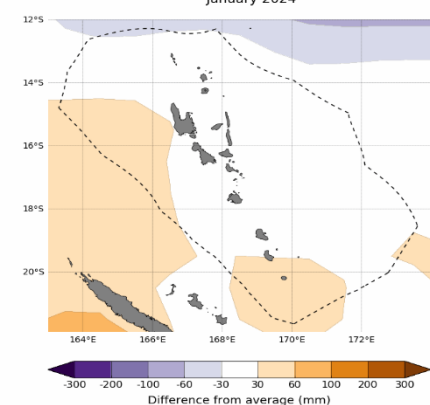
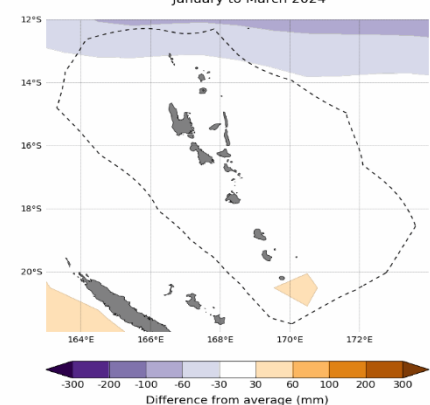
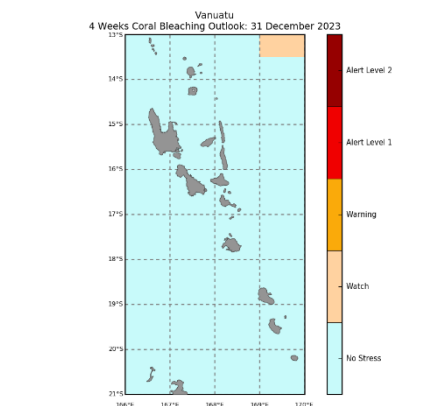
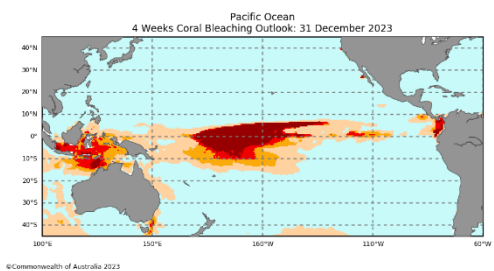
Monthly: January	Seasonal: January to March
<div><p><b>Rainfall (Image 1)</b></p><p>Tercile rainfall probabilities for January 2024</p><p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <a href="http://www.maritimergions.org/">http://www.maritimergions.org/</a></p><p>Model run: 04/12/2023 Issued: 06/12/2023</p></div>	<div><p><b>Rainfall (Image 2)</b></p><p>Tercile rainfall probabilities for January to March 2024</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.maritimergions.org/">http://www.maritimergions.org/</a></p><p>Model run: 04/12/2023 Issued: 06/12/2023</p></div>
<div><p><b>Monthly Maximum temperature (Image 3):</b></p><p>Tercile maximum temperature probabilities for January 2024</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.maritimergions.org/">http://www.maritimergions.org/</a></p><p>Model run: 04/12/2023 Issued: 06/12/2023</p></div>	<div><p><b>Seasonal maximum temperature (Image 4):</b></p><p>Tercile maximum temperature probabilities for January to March 2024</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.maritimergions.org/">http://www.maritimergions.org/</a></p><p>Model run: 04/12/2023 Issued: 06/12/2023</p></div>
<div><p><b>Monthly minimum temperature (Image 5):</b></p><p>Tercile minimum temperature probabilities for January 2024</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.maritimergions.org/">http://www.maritimergions.org/</a></p><p>Model run: 04/12/2023 Issued: 06/12/2023</p></div>	<div><p><b>Seasonal minimum temperature (Image 6):</b></p><p>Tercile minimum temperature probabilities for January to March 2024</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.maritimergions.org/">http://www.maritimergions.org/</a></p><p>Model run: 04/12/2023 Issued: 06/12/2023</p></div>

Part 2: Recent Ocean Observation

Monthly/Three months: November and September to November 2023

Monthly: November	Last three months: September to November 2023:
Sea Surface Temperature (Image 1): <div></div>	Sea Surface Temperature (Image 4): <div></div>
Sea level (Image 2): <div></div>	
Daily coral bleaching alert (Image 3): <div></div>	<div></div>

Part 2i. Monthly and Seasonal Outlooks for January and January to March 2024

Monthly: January	Seasonal: January to March
<p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for January 2024</p>  <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Geospatial data extracted from Pacific Marine Institute (2019), Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2019), version 1.1. Available online at <a href="http://www.maritime.gov.au/">http://www.maritime.gov.au/</a></p> <p>Model run: 04/12/2023 Issued: 06/12/2023</p>	<p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for January to March 2024</p>  <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Geospatial data extracted from Pacific Marine Institute (2019), Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2019), version 1.1. Available online at <a href="http://www.maritime.gov.au/">http://www.maritime.gov.au/</a></p> <p>Model run: 04/12/2023 Issued: 06/12/2023</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for January 2024</p>  <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Geospatial data extracted from Pacific Marine Institute (2019), Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2019), version 1.1. Available online at <a href="http://www.maritime.gov.au/">http://www.maritime.gov.au/</a></p> <p>Model run: 04/12/2023 Issued: 06/12/2023</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for January to March 2024</p>  <p>Base period: 1981-2018 Model: ACCESS-52 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Geospatial data extracted from Pacific Marine Institute (2019), Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2019), version 1.1. Available online at <a href="http://www.maritime.gov.au/">http://www.maritime.gov.au/</a></p> <p>Model run: 04/12/2023 Issued: 06/12/2023</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Vanuatu 4 Weeks Coral Bleaching Outlook: 31 December 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: 31 December 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: November 2023/September to November 2023 statement**

The rainfall for November was below normal over the whole country. Pekoa and Aneityum recorded their 3<sup>rd</sup> and 4<sup>th</sup> driest months on record respectively.

For the September to November period, Sola and Pekoa recorded below normal rainfall, while Bauerfield, Whitegrass and Aneityum recorded normal rainfall.

Data for Lamap was not available.

## **Part 1i. Monthly and Seasonal Outlooks for January and January to March 2024**

### **Monthly /Seasonal rainfall and temperature Outlook statements**

Rainfall for January, and the January to March period is very likely to be below normal over the whole country.

Maximum and minimum temperatures for January, and the January to March period is very likely to be above normal over the whole country.

## **Part 2: Recent Ocean summary statement**

### **Monthly and last three months: November 2023/September to November 2023**

November and averaged over September to November, ocean temperatures around Vanuatu were near normal, with exception of 0.5 to 1°C above normal over Sanma.

November sea levels around Vanuatu were up to 200mm above normal.

Coral bleaching alert reveals no thermal stress for majority of Vanuatu.

## **Part 2i. Monthly and Seasonal Outlooks for January and January to March 2024**

### **Ocean Variable statement**

January ocean temperatures around Vanuatu are predicted to be near normal over Shefa and parts of Malampa and Penama, and up to 0.8°C above normal elsewhere.

Averaged over January to March, ocean temperatures are predicted to be 0.4 to 0.8°C above normal.

January sea levels are predicted to be near normal over the whole country.

Averaged over January to March, sea levels are predicted to be near normal over the whole country.

Coral bleaching outlook predicts no thermal stress for Vanuatu for the next four weeks.

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

Product	Date: November 2023	Stakeholder	Total Number of Participants	Number of Male	Number of Female
NCOF	30 <sup>th</sup> October — 3 <sup>rd</sup> November	Department of Agriculture, Department of Local Authorities, Vanautu Rainfall Collectors, TK Champions, VMGD	84	63	21
National Cyclone Season Outlook	3 <sup>rd</sup> November	VBTC as a news story, and they ran it on VBTC Facebook Online News, TBV News, Radio Vanuatu News, Paradise 98 FM News, Femme Pawa 99 FM News, and Radio Vanuatu Online News. Daily Post, Buzz FM (nightly news, 3 Nov).			
November Climate & Oceans Update	10th	VMGD-Van-KIRAP Staffs, Oxfam Vanuatu, Action Aid Vanuatu, University of the South Pacific (USP), Vanuatu Statistics Office, SPREP, Vanuatu National Disaster Management Office (NDMO), Media-Vanuatu, Vanuatu Red Cross Society, Matevulu College, Onesua Presbyterian College, Aore Adventist College, Tafea College, CSU, Vanuatu Care International, Save the Children Vanuatu, UNDP, Shefa Education, Live & Learn, UN-Women, Vanuatu Christian Council (VCC), GCF Private Consultants, Vanuatu Society of People Living with Disability, Unelco Vanuatu, World Health Organization, Vanuatu Meteorology & Geo-Hazards Department (Staffs), General Public (Website and VMGD Call-Center). Facebook	206	104	102
Vanuatu Climate Update	22nd	Website			
Vanuatu Ocean Outlook	21st	Website			
<b>Total</b>			<b>290</b>	<b>167</b>	<b>123</b>