

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 193

Country: Vanuatu

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Jul-2023	Aug-2023	Sep-2023				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
	Northern Region						
Sola (1971-2023)	267.4	138.9	55.8	168.6	267.0	227.2	4/51
Pekoa (1971-2023)	219.1	196.0	45.9	63.0	137.0	92.9	15/53
Lamap (1961-2022)				46.5	117.7	78.5	
Southern Region							
Bauerfield (1972-2023)	125.6	162.0	236.7	52.2	104.2	65.6	50/51
Port Vila (1953-2023)	108.5	97.0		46.7	104.9	74.6	
Whitegrass (1972-2023)	32.4	163.6	74.6	20.4	61.5	31.9	37/51
Aneityum (1952-2023)	32.4	269.7	98.7	60.1	121.0	88.2	41/72

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

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Northern Region						
Sola (1971-2023)	462.1	Below normal	560.8	831.0	641.4	11/49
Pekoa (1971-2023)	461.0	Above normal	202.1	396.2	340.8	46/52
Lamap (1961-2023)			202.7	306.0	246.3	
Southern Region						
Bauerfield (1972-2023)	524.3	Above normal	183.2	275.5	237.8	49/51
Port Vila (1953-2023)			189.0	327.4	254.6	
Whitegrass (1972-2023)	270.6	Above normal	106.1	177.6	127.8	45/51
Aneityum (1952-2023)	400.8	Above normal	267.1	374.3	332.8	53/72

Part 1i. Monthly and Seasonal Outlooks for November and November 2023 to January 2024

Monthly: November	Seasonal: November to January
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for November 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Objective data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimergms.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>	<p>Tercile rainfall probabilities for November 2023 to January 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Objective data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimergms.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for November 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Objective data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimergms.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>	<p>Tercile maximum temperature probabilities for November 2023 to January 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Objective data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimergms.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for November 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Objective data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimergms.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>	<p>Tercile minimum temperature probabilities for November 2023 to January 2024</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023, Australian Bureau of Meteorology Objective data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at http://www.maritimergms.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>

Part 2: Recent Ocean Observation

Monthly/Three months: September and July to September 2023

Monthly: September	Last three months: July to September 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 November and November 2023 to January 2024

Monthly: November	Seasonal: November to January
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for November 2023</p> <p>Difference from average (°C)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Datafile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (GEOMAR), version 13. Available online at http://www.maritimegeography.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>	<p>Difference from average sea surface temperature forecast for November 2023 to January 2024</p> <p>Difference from average (°C)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Datafile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (GEOMAR), version 13. Available online at http://www.maritimegeography.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for November 2023</p> <p>Difference from average (mm)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Datafile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (GEOMAR), version 13. Available online at http://www.maritimegeography.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>	<p>Difference from average sea surface height forecast for November 2023 to January 2024</p> <p>Difference from average (mm)</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2023. Australian Bureau of Meteorology Datafile data extracted from Flanders Marine Institute (2019). Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (GEOMAR), version 13. Available online at http://www.maritimegeography.org/</p> <p>Model run: 02/10/2023 Issued: 04/10/2023</p>
4-week Coral Bleaching (Image 9):	
<p>Vanuatu</p> <p>4 Weeks Coral Bleaching Outlook: 29 October 2023</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</p> <p>©Commonwealth of Australia 2023 Australian Bureau of Meteorology, COSPPac</p> <p>NOAA Coral Reef Watch</p>	<p>Pacific Ocean</p> <p>4 Weeks Coral Bleaching Outlook: 29 October 2023</p> <p>Alert Level 2 Alert Level 1 Warning Watch No Stress</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: September 2023/July to September 2023 statement

The rainfall for September was below normal at Sola and Pekoa, above normal at Bauerfield and Whitegrass, and near-normal at Aneityum. Sola recorded its fourth driest September in 51 years, while Bauerfield recorded its second wettest September in 51 years.

For the past three months, rainfall was below normal at Sola, and above normal at remaining sites. Bauerfield recorded its third wettest July to September period in 51 years.

Data for Lamap and Port Vila was not available.

Part 1i. Monthly and Seasonal Outlooks for November and November 2023 to January 2024

Monthly /Seasonal rainfall and temperature Outlook statements

The rainfall for November is likely or very likely to be above normal over Torba Province and much of Penama Province, while near-normal rainfall is likely for parts of Tafea. Elsewhere, the outlook offers little guidance.

The rainfall for November to January is likely or very likely to be below normal over much of the country, the exceptions being Torba province where near-normal rainfall is likely, and northern Penama where the outlook offers little guidance.

Maximum temperatures during November are very likely to be above normal over Torba province and normal elsewhere. November minimum temperatures are very likely to be above normal over Torba, Sanma, Penama and parts of Malampa, while further south they're likely to be near-normal.

Maximum temperatures averaged over November to January are very likely to be above normal over Torba, Sanma, and Penama Provinces, and likely to be near-normal over Malampa, Shefa and Tafea.

Minimum temperatures averaged over November to January are very likely to be above normal over Torba, Sanma, Penama, Malampa and parts of Shefa Provinces. Near-normal minimum temperatures are likely over Tafea.

Part 2: Recent Ocean summary statement

Monthly and last three months: September 2023/July to September 2023

September ocean temperatures were up to 1.0°C above normal over most of the country. Ocean temperatures around western and southern Vanuatu was near normal. Averaged over July to September, ocean temperatures around most of the country were near normal.

September sea levels around Vanuatu were 50mm to 100mm above normal.

Coral bleaching alert reveals no thermal stress for Vanuatu.

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

Ocean Variable statement

November ocean temperatures around Vanuatu are predicted to be 0.4 to 0.8°C above normal over Torba and parts of Sanma. Normal temperatures are predicted over other parts of the country.

Averaged over November to January, ocean temperatures are predicted to be 0.4 to 0.8°C above normal over parts of Torba. Normal temperatures are predicted over other parts of the country.

November sea levels around Vanuatu are predicted to be normal.

Averaged over November to January, sea levels around Vanuatu are predicted to be normal.

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

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

Product	Date: September 2023	Stakeholder	Total Number of Participants	Number of Male	Number of Female	Comments (If there are comments from you Stakeholders)
Radio Talk- back Show on El Nino Alert	13 th	Radio Vanuatu VMGD	3	1	2	
El Nino Stakeholder Briefing	22nd	VMGD, Van-KIRAP, NDMO, Save the Children, Oxfam, VBTC, Department of Forestry, Department of Agriculture, National University of Vanuatu, Vanuatu Daily Post, Radio New Zealand, General Public	41	25	16	
El Nino Media Release in 3 Official Languages	23rd	Vanuatu Daily Post	General Public	-	-	
El Nino update through Radio NZ Pacific	27th	Radio NZ Pacific	General Public	-	-	
Total			44	26	18	