

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 173

Country: Vanuatu

## Part 1: Recent climate

**TABLE 1: Monthly Rainfall**

Station (include data period)	Nov-2021	Dec-2021	Jan-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Northern Region							
Sola (1971-2022)	630.2	458.0	328.2	318.3	461.6	386.7	18/50
Pekoa (1971-2022)	337.0		368.0	231.5	339.6	287.9	38/52
Lamap (1961-2022)	230.0	130.5	326.0	171.7	273.5	213.6	50/62
Southern Region							
Bauerfield (1972-2022)	218.0	298.7	529.5	204.9	310.6	254.4	46/51
Port Vila (1953-2022)	254.5	250.5	516.0	198.3	320.5	243.0	64/70
Whitegrass (1972-2022)	26.9	144.3	388.7	108.9	210.4	164.7	46/51
Aneityum (1952-2022)	60.2	283.0	420.0	156.8	351.6	238.0	55/71

**TABLE 2: Three-month Total Rainfall for November 2021 to January 2022**

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Northern Region						
Sola (1971-2022)	1416.4	Above normal	1049.7	1356.4	1186.8	35/47
Pekoa (1971-2022)			595.0	819.0	624.3	
Lamap (1961-2022)	686.5	Above normal	424.1	549.9	473.1	47/61
Southern Region						
Bauerfield (1972-2022)	1046.2	Above normal	442.1	683.1	565.5	46/49
Port Vila (1953-2022)	1021.0	Above normal	426.8	669.8	569.2	65/69
Whitegrass (1972-2022)	559.9	Above normal	262.5	400.4	327.5	41/50
Aneityum (1952-2022)	763.2	Above normal	432.7	675.6	600.7	54/70

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:  $X \geq 35$

Part 1i. Monthly and Seasonal Outlooks for March and March to May 2022

Monthly: March	Seasonal: March to May
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Original data extracted from Forecasting Marine Institute (2022), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2020), version 11. Available online at <a href="http://www.maritime.gov.au">http://www.maritime.gov.au</a></p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>	<p>Tercile rainfall probabilities for March to May 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Original data extracted from Forecasting Marine Institute (2022), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2020), version 11. Available online at <a href="http://www.maritime.gov.au">http://www.maritime.gov.au</a></p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Original data extracted from Forecasting Marine Institute (2022), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2020), version 11. Available online at <a href="http://www.maritime.gov.au">http://www.maritime.gov.au</a></p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>	<p>Tercile maximum temperature probabilities for March to May 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Original data extracted from Forecasting Marine Institute (2022), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2020), version 11. Available online at <a href="http://www.maritime.gov.au">http://www.maritime.gov.au</a></p> <p>Model run: 31/01/2022 Issued: 03/02/2022</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Original data extracted from Forecasting Marine Institute (2022), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2020), version 11. Available online at <a href="http://www.maritime.gov.au">http://www.maritime.gov.au</a></p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>	<p>Tercile minimum temperature probabilities for March to May 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Original data extracted from Forecasting Marine Institute (2022), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2020), version 11. Available online at <a href="http://www.maritime.gov.au">http://www.maritime.gov.au</a></p> <p>Model run: 05/02/2022 Issued: 07/02/2022</p>

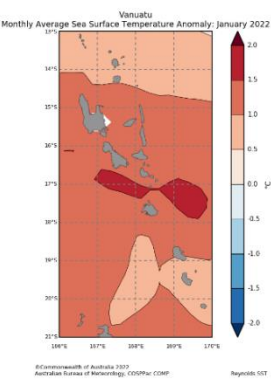
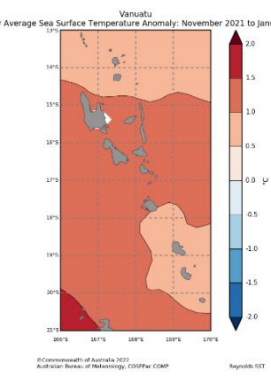
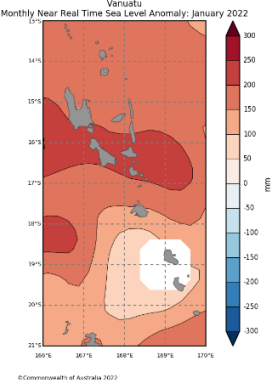
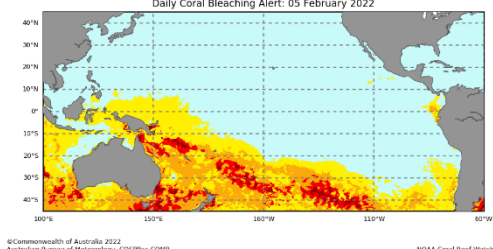
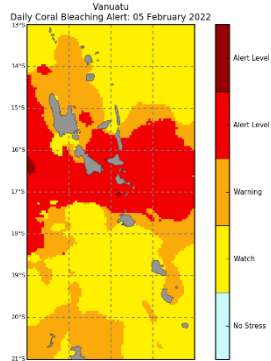
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Very High:  $25 \leq X < 35$       Exceptional:  $X \geq 35$

## Part 2: Recent Ocean summary statement

### Monthly: January 2022

Monthly: January	Last three months: November 2021 to January 2022:
<p><b>Sea Surface Temperature (Image 1):</b></p>  <p>Vanuatu Monthly Average Sea Surface Temperature Anomaly: January 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSIPac COMP</p>	<p><b>Sea Surface Temperature (Image 4):</b></p>  <p>Vanuatu 3 monthly Average Sea Surface Temperature Anomaly: November 2021 to January 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSIPac COMP</p>
<p><b>Sea level (Image 2):</b></p>  <p>Vanuatu Monthly Near Real Time Sea Level Anomaly: January 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSIPac COMP</p>	
<p><b>Daily coral bleaching alert (Image 3):</b></p>  <p>Pacific Ocean Daily Coral Bleaching Alert: 05 February 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSIPac COMP</p> <p>NOAA Coral Reef Watch</p>	 <p>Vanuatu Daily Coral Bleaching Alert: 05 February 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSIPac COMP</p> <p>NOAA Coral Reef Watch</p>

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Part 2i. Monthly and Seasonal Outlooks for March and March to May 2022

Monthly: March	Seasonal: March to May
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<div>Difference from average sea surface temperature forecast for March 2022</div> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Sea surface data extracted from European Marine Institute (2018), Marine Boundary and Exclusive Economic Zones (2008), version 11, available online at <a href="http://www.marineinsight.com">http://www.marineinsight.com</a></p> <p>Model run: 07/02/2022 Issued: 09/02/2022</p>	<div>Difference from average sea surface temperature forecast for March to May 2022</div> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Sea surface data extracted from European Marine Institute (2018), Marine Boundary and Exclusive Economic Zones (2008), version 11, available online at <a href="http://www.marineinsight.com">http://www.marineinsight.com</a></p> <p>Model run: 07/02/2022 Issued: 09/02/2022</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<div>Difference from average sea surface height forecast for March 2022</div> <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/01/2022 Issued: 02/02/2022</p>	<div>Difference from average sea surface height forecast for March 2022 to May 2022</div> <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/01/2022 Issued: 02/02/2022</p>
4-week Coral Bleaching (Image 9):	
<div>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 27 February 2022</div> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>	<div>Vanuatu 4 Weeks Coral Bleaching Outlook: 27 February 2022</div> <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPPac COMP</p> <p>NOAA Coral Reef Watch</p>

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## Summary Statement

### Monthly and last three months: January 2022/November 2021 to January 2022 statement (Highly significant changes)

In January, above normal rainfall was recorded at all stations throughout the country except for Sola, where normal rainfall was received. Bauerfield and Whitegrass recorded their sixth wettest January while Port Vila recorded its seventh wettest January on record.

For the November to January period, above normal rainfall was recorded at all stations. Pekoa rainfall data was not available. Bauerfield and Port Vila recorded their fourth and fifth wettest November to January period on record respectively.

## Part 1i. Monthly and Seasonal Outlooks for March and March to May 2022

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

The outlook for Vanuatu for March is *very likely* to be above normal for the Torba province. Elsewhere, rainfall is likely to be near-normal to above normal.

For the March to May period, above normal is *very likely* for the Torba, Sanma, Penama, Malampa and Shefa Province. Elsewhere, rainfall is likely to be near-normal.

The maximum and minimum temperature outlook is very likely to be above normal for the March, and March to May period.

## Part 2: Recent Ocean summary statement

### Monthly and last three months: January/November 2021 to January 2022 (Highly significant changes)

For the month of January 2022, above average SST greater than 0.5 degrees difference were experienced by Vanuatu, with significant SST's difference of 1.5 to 2.0°C observed in Shefa provinces. The past three months had above average SST with significant SSTs differences of 1.0 to 1.5°C were experienced over Sanma, Penama, Malampa and Shefa provinces.

Sea level was also above average over the country in January. Highest SL was 200 – 250 mm above average over Malampa, and the southern parts of Sanma and Penama province. This same area coverage was in Coral Bleaching Alert Level 1 on 5th February 2022, while Coral Bleaching Watch and Warning remain elsewhere over the country.

## Part 2i. Monthly and Seasonal Outlooks for March and March to May 2022

### Ocean Variable statement (Highly significant changes)

The March SST outlook shows slightly above normal SST differences for most of Vanuatu at SSTs differences of 0.4 to 0.8°C, with a small patch of normal SSTs located at eastern Tafea province. The March to May 2022 SST outlook shows SSTs differences of 0.4 to 0.8°C for most of Vanuatu, with significant SSTs differences of 0.8 to 1.2°C at far eastern parts of Shefa and Tafea province.

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For the sea surface height forecast, the March and March to May 2022 shows significant above normal sea surface height of 60mm to 200mm for Torba province, with Penama province showing above normal values of 30mm to 200mm. Normal to slightly above normal values are observed in Sanma, Malampa and Shefa provinces. The southern and eastern Tafea province is predicted to experience significant below normal to normal sea surface height of -200mm to 30mm.

The Coral Bleaching Outlook for the whole country is forecasted to be in Alert level 1, while the central islands are expected to be in Alert level 2.

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

Product	Date: January 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Community Climate Center Monthly Briefing	14th	Water Sector, Tourism Sector, National Disaster Management Office, Van-KIRAP, VMGD, Youth Representatives, Save the Children	20	15	5
Vanuatu Climate Update	27th	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).	206	104	102
EAR Watch	27th	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,	206	104	102

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		World Health Organization, Vanuatu Meteorology & Geo-Hazards Department (Staffs), General Public (Website and VMGD Call-Center).			
Vanuatu Ocean Outlook	27th	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).	206	104	102
Climate Data Request	31st	French Architect (Construction Project for the Vanuatu National University)	1	1	
<b>Total</b>			<b>227</b>	<b>120</b>	<b>107</b>

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