

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 171

Country: Vanuatu

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Sep-2021	Oct-2021	Nov-2021				Rank
			Total (mm)	33%tile	67%tile	Median	
	Total (mm)	Total (mm)	Rainfall (mm)				
Northern Region							
Sola (1971-2021)	186.4	396.2	630.2	303.4	489.7	422.0	41/49
Pekoa (1971-2021)	161.9	722.2	337.0	122.5	215.7	182.0	45/51
Lamap (1961-2021)	128.0	289.0	230.0	90.7	145.6	118.3	51/61
Southern Region							
Bauerfield (1972-2021)	82.6	241.9	218.0	98.9	179.4	130.3	39/49
Port Vila (1953-2021)	47.0	250.5	254.5	73.7	154.4	116.6	59/69
Whitegrass (1972-2021)	32.6	154.6	26.9	31.0	85.1	49.7	16/51
Aneityum (1952-2021)	42.8	247.3	60.2	58.5	150.3	107.5	25/70

TABLE 2: Three-month Total Rainfall for September to November 2021.

Station	Three-month Total	33%tile	67%tile	Median	Rank	
	Rainfall (mm)					
Northern Region						
Sola (1971-2021)	1212.8	Above normal	885.1	1176.2	1024.4	33/48
Pekoa (1971-2021)	1221.1	Above normal	332.1	521.4	434.9	51/51
Lamap (1961-2021)	647.0	Above normal	274.5	404.7	326.9	53/60
Southern Region						
Bauerfield (1972-2021)	542.5	Above normal	235.9	428.3	319.4	43/49
Port Vila (1953-2021)	552.0	Above normal	232.8	389.2	303.6	62/69
Whitegrass (1972-2021)	214.1	Normal	116.4	220.1	149.2	32/49
Aneityum (1952-2021)	350.3	Normal	264.9	425.6	353.3	35/70

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 January 2022 and January to March 2022

Monthly	Seasonal
<p>Rainfall (Image 1)</p> <p>Tercile rainfall probabilities for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au.</p> <p>Model run: 29/11/2021 Issued: 02/12/2021</p>	<p>Rainfall (Image 2)</p> <p>Tercile rainfall probabilities for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au.</p> <p>Model run: 29/11/2021 Issued: 02/12/2021</p>
<p>Monthly Maximum temperature (Image 3):</p> <p>Tercile maximum temperature probabilities for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au.</p> <p>Model run: 29/11/2021 Issued: 02/12/2021</p>	<p>Seasonal maximum temperature (Image 4):</p> <p>Tercile maximum temperature probabilities for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au.</p> <p>Model run: 29/11/2021 Issued: 02/12/2021</p>
<p>Monthly minimum temperature (Image 5):</p> <p>Tercile minimum temperature probabilities for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au.</p> <p>Model run: 29/11/2021 Issued: 02/12/2021</p>	<p>Seasonal minimum temperature (Image 6):</p> <p>Tercile minimum temperature probabilities for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Diagnostic data extracted from Flinders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2008M), version 11. Available online at http://www.marine.gov.au.</p> <p>Model run: 29/11/2021 Issued: 02/12/2021</p>

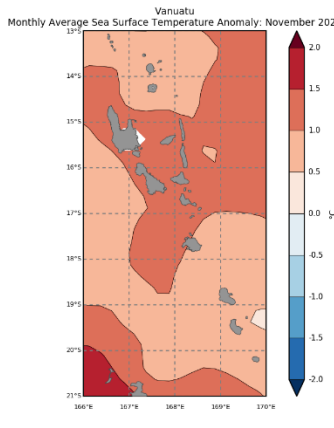
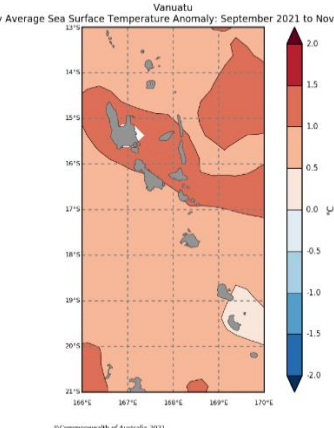
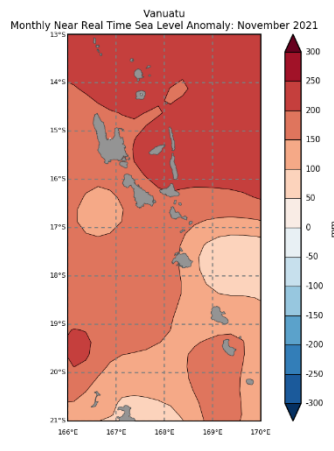
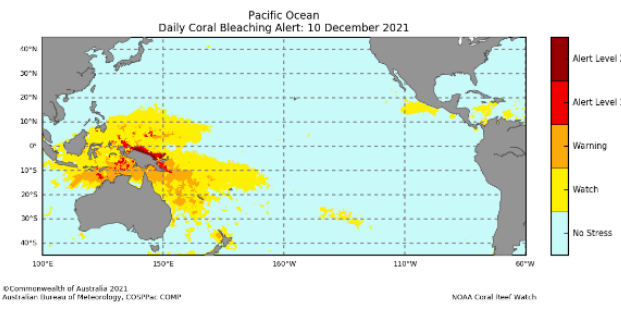
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Part 2: Recent Ocean summary statement

Monthly: November 2021

Monthly: November	Last three months: September to November 2021:
Sea Surface Temperature (Image 1):	Sea Surface Temperature (Image 4):
 <p>Vanuatu Monthly Average Sea Surface Temperature Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac, CDMF Reynolds SST</p>	 <p>Vanuatu 3 monthly Average Sea Surface Temperature Anomaly: September 2021 to November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac, CDMF Reynolds SST</p>
Sea level (Image 2):	
 <p>Vanuatu Monthly Near Real Time Sea Level Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac, CDMF AVISO SeaWiFS/QuikSCAT SIA</p>	
Daily coral bleaching alert (Image 3):	
 <p>Pacific Ocean Daily Coral Bleaching Alert: 10 December 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPPac, CDMF NOAA Coral Reef Watch</p>	

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

Monthly: January	Seasonal: January to March
<p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for January 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Spatial data extracted from Geoscience Australia (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2004), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 11/12/2021 Issued: 13/12/2021</p>	<p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for January to March 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2021, Australian Bureau of Meteorology Spatial data extracted from Geoscience Australia (2018), Maritime Boundaries Geodatabase, Maritime Boundaries and Exclusive Economic Zones (2004), version 11. Available online at http://www.maritime.gov.au/</p> <p>Model run: 11/12/2021 Issued: 13/12/2021</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for January 2022</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28 Issued: 07</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for January 2022 to March 2022</p> <p>© Commonwealth of Australia 2021 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28 Issued: 07</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 02 January 2022</p> <p>© Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPAR COMP</p> <p>NOAA Coral Reef Watch</p>	

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Summary Statement

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

Sola, Pekoa, Lamap, Bauerfield and Port Vila recorded above normal rainfall in November, while Whitegrass experienced below normal. Aneityum recorded normal rainfall.

For the last three month period, above normal rainfall was recorded at Sola, Pekoa, Lamap, Bauerfield, and Port Vila. Whitegrass and Aneityum recorded normal rainfall. Pekoa station recorded its wettest September to November period in 51 years.

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

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

Rainfall is very likely to be above normal in January 2022, and January to March 2022 for Vanuatu. Both day-time and night-time temperatures are likely to be warmer than average in January 2022, and January to March 2022.

Part 2: Recent Ocean summary statement

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

Significantly high SSTs of 1.0 °C to 1.5 °C above average were experienced over most of the Sanma, Penama, Malampa and Shefa provinces in November 2021, and for the September to November period, these high SSTs were recorded over most of the Sanma, Penama and Malampa provinces.

The highest sea level recorded in November was experienced over most of the Torba and Penama provinces. Sea level was 200 mm – 250mm above average.

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

Ocean Variable statement (Highly significant changes)

Above average SSTs are very likely for Vanuatu from January 2022, and January to March 2022, with the highest difference from average of 0.8 °C – 1.0 °C forecasted for the Tafea Province.

Sea level is very likely to be above average over the northern waters and below average over the southern waters. The highest sea level with a difference from average of 100 mm – 200 mm is expected for the Torba province, while the lowest sea level with a difference from average of -30 mm up to -200 mm is forecasted for waters east of the Tafea province.

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

Product	Date: November 2021	Stakeholder	Total Number of Participants	Number of male	Number of female
NCOF	27 th – 29 th October	BOM, Vanuatu Meteorology & Geo-Hazards Department (Staffs), Farmers, World Vision Vanuatu, Vanuatu National Disaster Management Office (NDMO), VMGD-Van-KIRAP Staffs, Agriculture Sector, Fisheries Sector, Water Sector, Tourism Sector.	56	46	10
Vanuatu Climate Update	12th	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	12th	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
Vanuatu Ocean Outlook	12th	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,	206	104	102

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		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).			
Community Climate Update	17 th	VMGD-Van-KIRAP Staffs, Action Aid Vanuatu, Vanuatu National Disaster Management Office (NDMO), Vanuatu Red Cross Society, Vanuatu Care International, Save the Children Vanuatu, Vanuatu Meteorology & Geo-Hazards Department (Staffs), General Public (Facebook).	22	16	6
Notice Board Updates around Efate	20 th	Pango (1), Erakor (3), Eratap (3), Teouma (1), Eton (1), Korongo (1), Korangua School (1), Pangpang (1), Epau (1), Ekiye School (1), Epule (1), Onesua College (1), Emua (1), Saama (1), Malatia School (1), Siviri (1), Malafau (1), Tanoliu (1), Mangaliliu (1), Mele School (1), Waisisi (1)	25 Noticeboards		
Total			284	156	118

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