

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

Country: Fiji

## Part 1: Recent climate

**TABLE 1: Monthly Rainfall**

Station (include data period)	Sep-2021	Oct-2021	Nov-2021				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2021)	56.8	28.1	132.1	95.7	189.8	134.4	57/110
Lautoka Mill (1900-2021)	62.6	41.0	142.1	63.6	154.6	113.1	83/122
Nadi Airport (1942-2021)	70.0	40.5	241.5	90.9	145.4	123.4	70/79
Central Division							
Laucala Bay (Suva) (1942-2021)	95.0	211.5	213.7	155.7	290.2	205.6	43/80
Nausori Airport (1957-2021)	109.6	442.6	200.7	190.3	305.4	232.5	25/66
Tokotoko (Navua) (1945-2021)	208.0	321.0	119.0	201.2	370.7	284.5	10/76
Eastern Division							
Lakeba (1950-2021)	171.2	47.5	143.5	71.4	172.7	114.0	44/73
Vunisea (Kadavu) (1931-2021)	174.2	M	107.8	94.0	164.9	109.6	44/86
Ono-i-Lau (1943-2021)	133.3	37.6	82.0	60.7	122.6	94.8	34/75
Northern Division							
Labasa Airport (1946-2021)	M	M	194.6	108.4	196.9	144.1	41/62
Savusavu Airfield (1956-2021)	M	M	M	126.2	209.2	160.5	
Udu Point (1946-2021)	162.5	105.8	418.7	159.9	285.7	221.8	65/72
Rotuma (1912-2021)	163.2	M	304.0	250.4	347.9	300.8	55/108

**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:  $X \geq 35$

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

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Western Division						
Penang Mill (1910-2021)	217.0	Below normal	250.4	414.7	295.9	32/109
Lautoka Mill (1900-2021)	245.7	Normal	199.2	344.9	279.7	52/122
Nadi Airport (1942-2021)	352.0	Above normal	242.4	342.9	296.0	58/79
Central Division						
Laucala Bay (Suva) (1942-2021)	520.2	Normal	474.1	790.5	655.7	33/80
Nausori Airport (1957-2021)	752.9	Above normal	438.0	737.3	601.4	44/65
Tokotoko (Navua) (1945-2021)	648.0	Normal	643.4	941.6	779.1	25/75
Eastern Division						
Lakeba (1950-2021)	362.2	Normal	291.8	409.9	329.0	42/71
Vunisea (Kadavu) (1931-2021)		Below normal	344.7	448.9	408.2	
Ono-i-Lau (1943-2021)	252.9	Normal	207.5	387.7	299.4	28/73
Northern Division						
Labasa Airport (1947-2021)			258.1	367.4	303.7	
Savusavu Airfield (1957-2021)			368.5	511.5	425.2	
Udu Point (1946-2021)	687.0	Above normal	394.6	568.3	498.1	55/71
Rotuma (1912-2021)			728.8	986.1	895.3	

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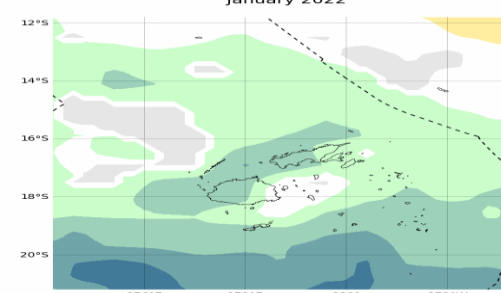
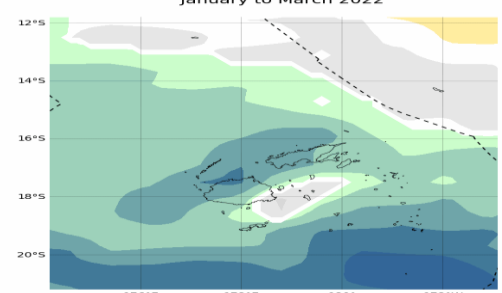
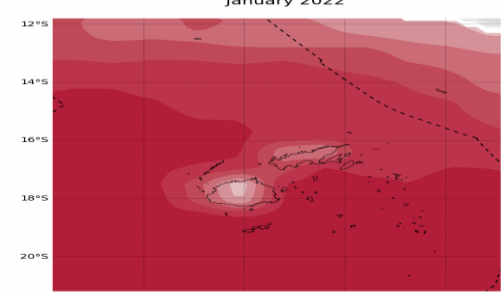
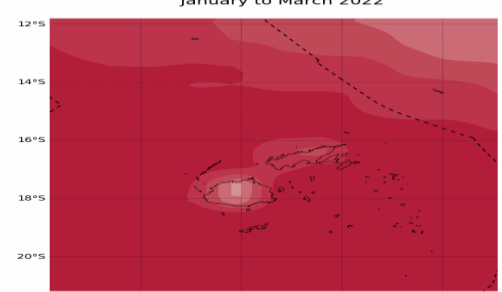
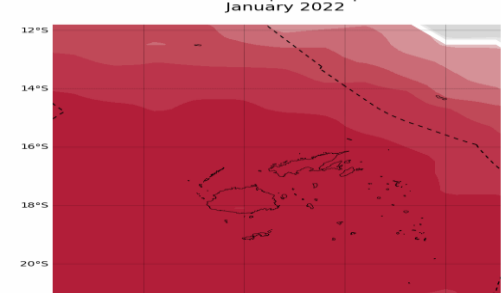
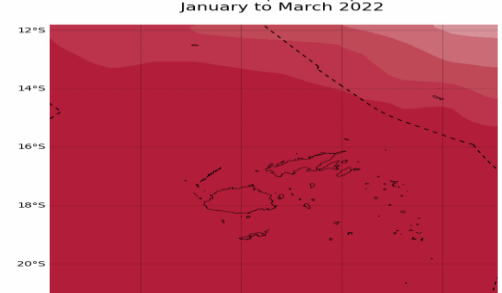
Moderate  $5 \leq X < 10$

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

Monthly	Seasonal
Rainfall (Image 1)	Rainfall (Image 2)
<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 supplied from Hindcast Marine Institute (2019). Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at <a href="http://www.maritimergions.org/">http://www.maritimergions.org/</a> Model run: 04/12/2021 Issued: 06/12/2021</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 supplied from Hindcast Marine Institute (2019). Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at <a href="http://www.maritimergions.org/">http://www.maritimergions.org/</a> Model run: 04/12/2021 Issued: 06/12/2021</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4): Insert map
<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 supplied from Hindcast Marine Institute (2019). Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at <a href="http://www.maritimergions.org/">http://www.maritimergions.org/</a> Model run: 04/12/2021 Issued: 06/12/2021</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 supplied from Hindcast Marine Institute (2019). Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at <a href="http://www.maritimergions.org/">http://www.maritimergions.org/</a> Model run: 04/12/2021 Issued: 06/12/2021</p>
Monthly minimum temperature (Image 5): Insert map	Seasonal minimum temperature (Image 6): Insert map
<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 supplied from Hindcast Marine Institute (2019). Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at <a href="http://www.maritimergions.org/">http://www.maritimergions.org/</a> Model run: 04/12/2021 Issued: 06/12/2021</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 supplied from Hindcast Marine Institute (2019). Maritime Boundary Database: Maritime Boundaries and Exclusive Economic Zones (2008), version 11. Available online at <a href="http://www.maritimergions.org/">http://www.maritimergions.org/</a> Model run: 04/12/2021 Issued: 06/12/2021</p>

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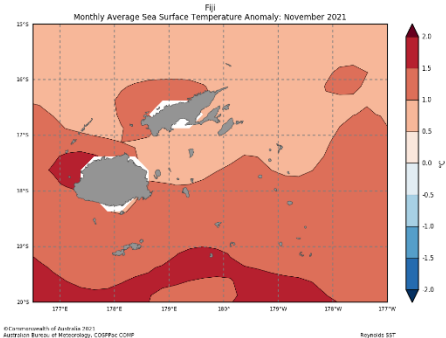
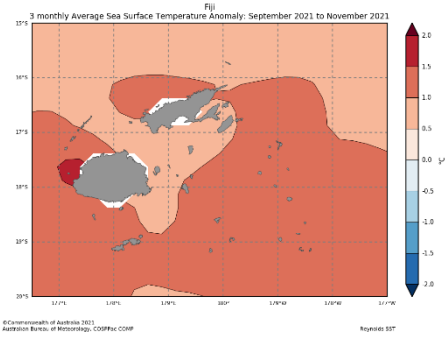
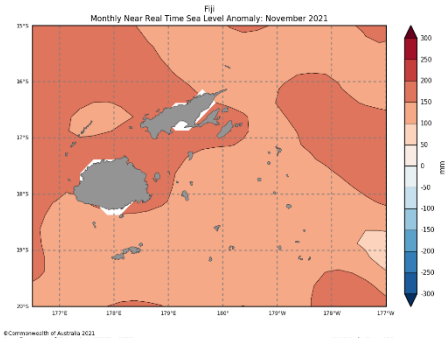
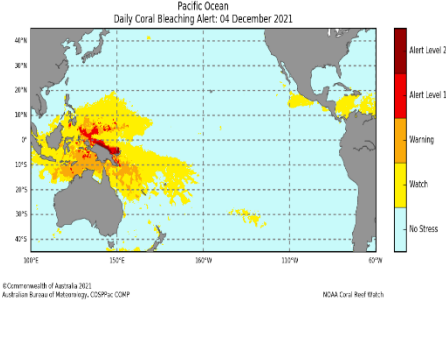
Good:  $10 \leq X < 15$

High:  $15 \leq X < 25$

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

## Part 2: Recent Ocean summary statement

### Monthly: November 2021

Monthly: November	Last three months: September to November 2021:
<p><b>Sea Surface Temperature (Image 1):</b></p>  <p>Monthly Average Sea Surface Temperature Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPac CORP</p>	<p><b>Sea Surface Temperature (Image 4):</b></p>  <p>3 monthly Average Sea Surface Temperature Anomaly: September 2021 to November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPac CORP</p>
<p><b>Sea level (Image 2):</b></p>  <p>Monthly Near Real Time Sea Level Anomaly: November 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPac CORP</p>	
<p><b>Daily coral bleaching alert (Image 3):</b></p>  <p>Pacific Ocean Daily Coral Bleaching Alert: 04 December 2021</p> <p>©Commonwealth of Australia 2021 Australian Bureau of Meteorology, COSPac CORP</p> <p>NOAA Coral Reef Watch</p>	

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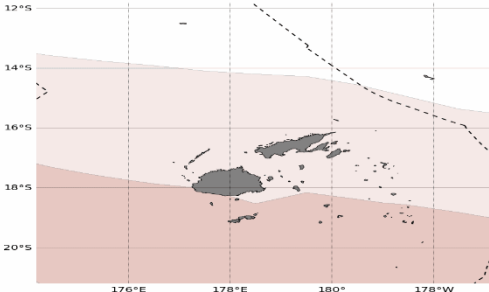
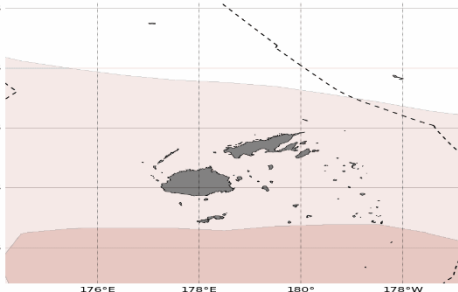
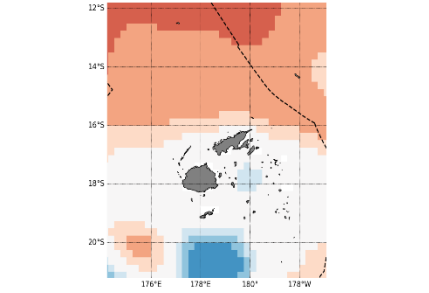
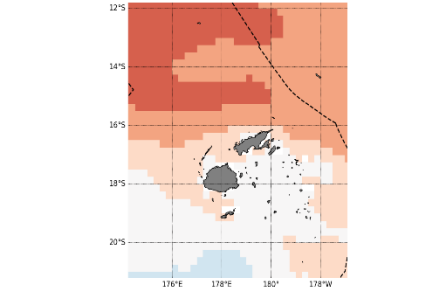
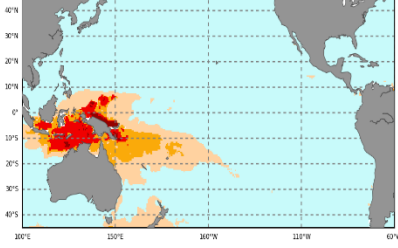
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Part 2i. Monthly and Seasonal Outlooks for January and January to March 2022

Monthly: January	Seasonal: January to March
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<div><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 Footnote: Data is based on version 1.1. Available online at <a href="http://www.bom.gov.au/marine">http://www.bom.gov.au/marine</a></p><p>Model run: 04/12/2021 Issued: 06/12/2021</p></div>	<div><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 Footnote: Data is based on version 1.1. Available online at <a href="http://www.bom.gov.au/marine">http://www.bom.gov.au/marine</a></p><p>Model run: 04/12/2021 Issued: 06/12/2021</p></div>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<div><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: 28/11/2021 Issued: 07/12/2021</p></div>	<div><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: 28/11/2021 Issued: 07/12/2021</p></div>
4-week Coral Bleaching (Image 9):	
<div><p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 26 December 2021</p><p>© Commonwealth of Australia 2021 Australian Bureau of Meteorology, CSIRO, and NOAA</p><p>NOAA Coral Reef Watch</p></div>	

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## Summary Statement

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

For November 2021, *below normal* rainfall was recorded at Tokotoko (Navua). On the other hand, *above normal* rainfall was registered at Nadi Airport and Udu Point. *Near normal* rainfall was received in the Eastern Division, Penang Mill, Lautoka Mill, Nausori Airport, Labasa Airport and Rotuma. Udu Point recorded their eighth wettest November in 72 years of record. Rainfall data is not available for Savusavu Airfield.

*Below normal* rainfall was recorded at Penang Mill and Vunisea (Kadavu) for September to November period. On the other hand, *above normal* rainfall was registered at Nadi Airport, Nausori Airport and Udu Point. *Near normal* rainfall was received at Lautoka Mill, Laucala Bay (Suva), Tokotoko (Navua), Lakeba and Ono-i-Lau.

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

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

The rainfall outlook for Fiji for January is likely to be *above normal* except for Lomaiviti Group and Rotuma with little guidance as the chances of *above normal*, *normal* and *below normal* rainfall are similar.

The rainfall outlook for Fiji for January to March 2022 is very likely to be *above normal*, except for parts of Lomaiviti Group and Rotuma with likely *normal* rainfall conditions.

The maximum and minimum temperatures for Fiji for January and January 2022 to March 2022 are very likely to be *above normal*.

## Part 2: Recent Ocean summary statement

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

Most of the Fiji Waters experienced above average SST in November 2021. Significant warm SSTs of 1.5 to 2.0°C above average were experienced on the western side of Viti Levu and parts of the Southern Lau Group.

For the September to November 2021 period, above average SSTs were experienced in most of the Fiji Waters, significant warmer SSTs of 1.5 to 2.0°C above average were experienced on the western side of Viti Levu.

The sea level anomaly across Fiji in November 2021 was significantly higher than normal, with water around Viti Levu, Vanua Levu, Yasawa, Mamanuca Islands, Lomaiviti Group and Taveuni in the range of 150 to 200 mm above average.

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

### Ocean Variable statement (Highly significant changes)

The SST outlook for Kadavu and southern Lau Group shows a significant temperature difference of 0.8-1.2°C above normal for January.

The SST outlook for parts of southern Lau Group shows a significant temperature difference of 0.8-1.2°C above normal for January 2022 to March 2022.

The outlook for Rotuma shows a significant sea level difference of 0.1-0.2m above normal for January 2022 and January 2022 to March 2022.

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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
Fiji Climate Summary	08/11/21	General Public	140	106	34
EAR Watch	09/11/21	Humanitarian partners	122	96	26
Fiji Climate Outlook	29/11/21	General public	124	93	31
Climate Outlook for Monasavu	30/11/21	Energy Fiji Limited	13	13	-
Fiji Ocean Outlook	20/11/21	A number of key ocean related stakeholders	36	29	7
ENSO Outlook	25/11/21	General Public	142	116	26
Meteorological Data Request	01/11/21 to 30/11/21	A range of stakeholders	28	19	9
<b>Total</b>			<b>605</b>	<b>472</b>	<b>133</b>

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