

Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 182

Country: Fiji

Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	Aug-2022	Sep-2022	Oct-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2022)	92.3	49.6	209.8	43.2	120.2	72.6	103/113
Lautoka Mill (1900-2022)	40.9	0.0	225.0	38.4	103.0	64.4	118/123
Nadi Airport (1942-2022)	54.2	9.1	196.9	39.8	109.7	61.6	74/81
Central Division							
Laucala Bay (Suva) (1942-2022)	123.4	113.7	352.4	136.0	225.0	175.4	67/81
Nausori Airport (1957-2022)	133.8	58.5	461.9	129.8	252.3	153.1	59/66
Tokotoko (Navua) (1945-2022)	203.5	122.5	490.0	195.1	318.6	250.2	69/78
Eastern Division							
Lakeba (1950-2022)	48.9	224.9	226.5	65.1	140.0	85.0	63/73
Vunisea (Kadavu) (1931-2022)		135.0		97.8	170.4	128.4	
Ono-i-Lau (1943-2022)	115.4	111.3	221.7	40.0	111.5	74.5	72/77
Northern Division							
Labasa Airport (1946-2022)	28.7	40.4	248.6	68.2	132.4	96.7	57/64
Savusavu Airfield (1956-2022)	123.8	29.2	187.6	98.4	189.6	129.0	43/65
Udu Point (1946-2022)	105.3	99.9	285.5	95.8	207.3	163.5	64/74
Rotuma (1912-2022)	79.5	124.5	217.8	244.6	369.0	298.0	30/107

TABLE 2: Three-month Total Rainfall for August to October 2022

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Western Division						
Penang Mill (1910-2022)	351.7	Above normal	177.5	278.1	236.0	89/112
Lautoka Mill (1900-2022)	265.9	Above normal	152.2	253.5	213.6	87/123
Nadi Airport (1942-2022)	260.2	Normal	165.2	279.1	220.8	47/81
Central Division						
Laucala Bay (Suva) (1942-2022)	589.5	Normal	419.5	625.3	511.4	51/81
Nausori Airport (1957-2022)	654.2	Above normal	429.9	608.7	488.0	49/66
Tokotoko (Navua) (1945-2022)	816.0	Above normal	554.6	782.8	652.0	53/76
Eastern Division						
Lakeba (1950-2022)	500.3	Above normal	255.1	341.3	305.8	64/72
Vunisea (Kadavu) (1931-2022)			327.1	447.6	394.0	
Ono-i-Lau (1943-2022)	448.4	Above normal	236.6	364.1	312.2	62/75
Northern Division						
Labasa Airport (1947-2022)	317.7	Above normal	176.2	242.0	198.6	52/62
Savusavu Airfield (1957-2022)	340.6	Normal	301.4	420.1	354.6	26/64
Udu Point (1946-2022)	490.7	Above normal	298.8	415.8	347.0	59/73
Rotuma (1912-2022)	421.8	Below normal	634.6	889.0	718.2	5/104

Part 1i. Monthly and Seasonal Outlooks for December and December 2022 to February 2023

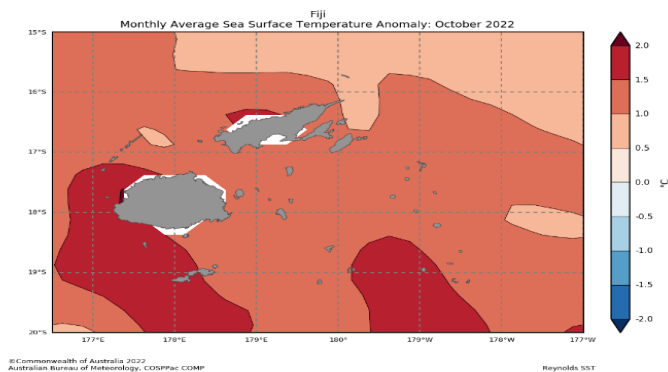
Monthly: December	Seasonal: December to January
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapelite data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009), version 11. Available online at http://www.maritimerregions.org/</p>	<p>Tercile rainfall probabilities for December 2022 to February 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapelite data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009), version 11. Available online at http://www.maritimerregions.org/</p>
Monthly Maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapelite data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009), version 11. Available online at http://www.maritimerregions.org/</p>	<p>Tercile maximum temperature probabilities for December 2022 to February 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapelite data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009), version 11. Available online at http://www.maritimerregions.org/</p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapelite data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009), version 11. Available online at http://www.maritimerregions.org/</p>	<p>Tercile minimum temperature probabilities for December 2022 to February 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapelite data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2009), version 11. Available online at http://www.maritimerregions.org/</p>

Part 2: Recent Ocean Observation

Monthly/Three months: October 2022 and August to October 2022

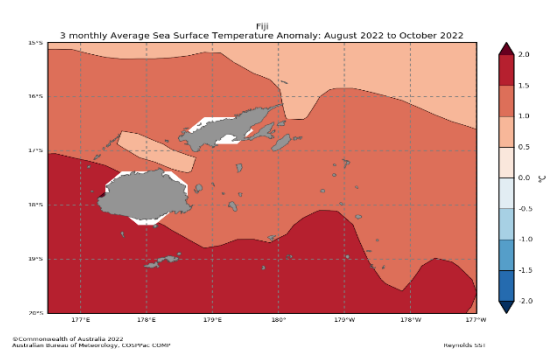
Monthly: October

Sea Surface Temperature (Image 1):

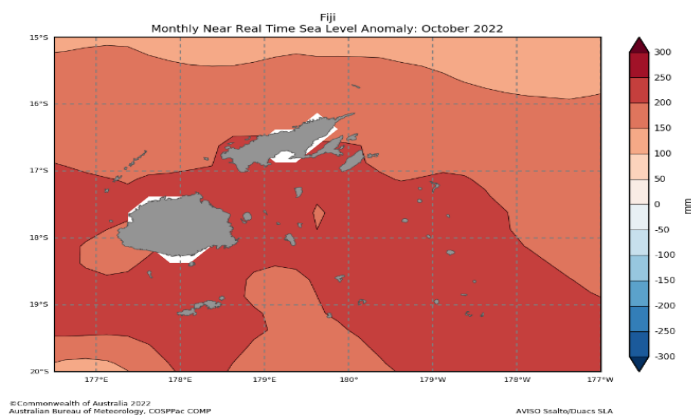


Last three months: August to October 2022:

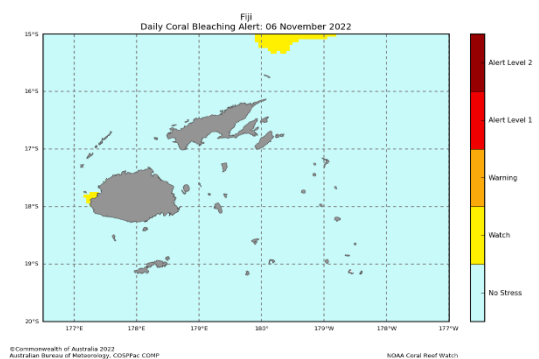
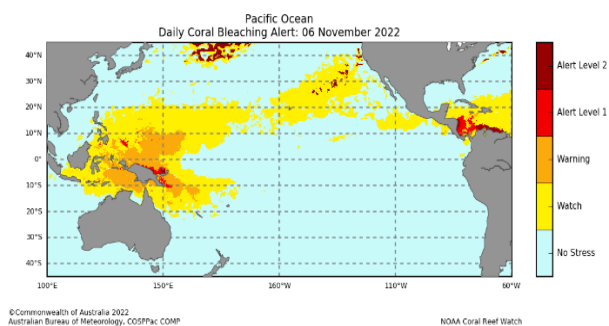
Sea Surface Temperature (Image 4):



Sea level (Image 2):



Daily coral bleaching alert (Image 3):



Part 2i. Monthly and Seasonal Outlooks for December 2022 and December 2022 to February 2023

<p>Monthly: December</p> <p>Monthly sea surface temperature (Image 5):</p> <p>Difference from average sea surface temperature forecast for December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, 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 http://www.maritimerregions.org/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>	<p>Seasonal: December to February</p> <p>Seasonal sea surface temperature (Image 6):</p> <p>Difference from average sea surface temperature forecast for December 2022 to February 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, 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 http://www.maritimerregions.org/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>
<p>Monthly sea level (Image 7):</p> <p>Difference from average sea surface height forecast for December 2022</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, 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 http://www.maritimerregions.org/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>	<p>Seasonal sea level (Image 8):</p> <p>Difference from average sea surface height forecast for December 2022 to February 2023</p> <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, 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 http://www.maritimerregions.org/</p> <p>Model run: 05/11/2022 Issued: 07/11/2022</p>
<p>4-week Coral Bleaching (Image 9):</p> <p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 27 November 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac CORP</p> <p>NOAA Coral Reef Watch</p>	<p>Fiji 4 Weeks Coral Bleaching Outlook: 27 November 2022</p> <p>©Commonwealth of Australia 2022 Australian Bureau of Meteorology, COSPac CORP</p> <p>NOAA Coral Reef Watch</p>

Summary Statement

Monthly and last three months: October 2022/August to October 2022 statement

For October 2022, *above normal* rainfall was recorded across the Western, Central, and Eastern Divisions, and at Labasa and Udu Point. *Near-normal* rainfall was registered at Savusavu Airfield, while Rotuma recorded *below normal* rainfall. Lautoka and Ono-i-Lau had their sixth wettest October in 123 and 72 years of record respectively, while Nausori and Labasa had their eighth wettest October in 66 and 64 years of record, respectively.

For August to October 2022, *normal* to *above normal* rainfall was recorded across Fiji, except for Rotuma, which recorded *below normal* rainfall. Rotuma recorded its fifth driest August to October in 104 years of record.

Part 1i. Monthly and Seasonal Outlooks for December 2022 and December to February 2023

Monthly /Seasonal rainfall and temperature Outlook statements

Fiji's December and December to February 2023, rainfall is likely to be *above normal*, except for Rotuma where there is little guidance with almost equal chances of *below normal*, *near normal* and *above normal* rainfall.

Both maximum and minimum temperatures for Fiji for December and December to February 2023 are very likely to be *above normal*.

Part 2: Recent Ocean summary statement

Monthly and last three months: October/August to October 2022

Most of the Fiji Waters experienced above average SST in October 2022. Significant warm SSTs of more than 1.5°C above average were experienced around Western Viti Levu, north of Vanua Levu, Vatulele, Kadavu and parts of southern Lau Group.

For the August to October 2022 period, above average SSTs were experienced in most of the Fiji Waters, while significant warmer SSTs of 1.5 to 2.0°C above average were experienced in waters west of Viti Levu, Vatulele, Kadavu and around southern Lau Group.

The sea level anomaly across Fiji in October 2022 was significantly higher than normal, with waters around Viti Levu, Vanua Levu, Lomaiviti Group, Kadavu and across the northern and southern Lau Group in the range of 200 to 250mm above average.

Coral bleaching alert reveals no thermal stress.

Part 2i. Monthly and Seasonal Outlooks for December 2022 and December to February 2023

Ocean Variable statement

The monthly SST outlook for December shows a significant temperature difference of 1.2-2.0°C *above normal* for Kadavu and parts of Southern Lau group. The seasonal SST outlook for December 2022 to February 2023 forecasts SST temperatures of utmost 1.2°C over most of Fiji Islands.

The monthly and seasonal sea level outlook for December and December 2022 to February 2023 reveals significant sea surface height differences of 100mm to 200mm for waters in Kadavu, parts of southern Lau Group and Rotuma.

Coral bleaching outlook for the next four weeks is at ‘*Watch*’ for waters north of Viti Levu, Viwa, Yasawa Group and north of Vanua Levu.

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

Product	Date: October 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Fiji Climate Summary	11/10/22	General Public	140	106	34
EAR Watch	14/10/22	Humanitarian partners	122	96	26
Fiji Climate Outlook	31/10/22	General public	124	93	31
Climate Outlook for Monasavu	31/10/22	Energy Fiji Limited	13	13	-
Fiji Ocean Outlook	20/10/22	A number of key ocean related stakeholders	36	29	7
Fiji Sugarcane Climate Outlook	31/10/22	Sugar Industry stakeholders	77	60	17
Meteorological Data Request	01/10/22 to 31/10/22	A range of stakeholders	32	24	8
Total			544	421	123