

# Pacific Islands - Ocean and Climate Outlook Forum (OCOF) No. 179

Country: Fiji

## Part 1: Recent climate

TABLE 1: Monthly Rainfall

Station (include data period)	May-2022	Jun-2022	Jul-2022				
			Total (mm)	33%tile	67%tile	Median	Rank
	Total (mm)	Total (mm)	Rainfall (mm)				
Western Division							
Penang Mill (1910-2022)	120.5	49.6	51.8	23.4	55.1	35.3	70/113
Lautoka Mill (1900-2022)	56.9	57.6	0.0	15.7	55.1	32.9	1/122
Nadi Airport (1942-2022)	80.1	75.0	4.8	15.2	62.3	33.1	14/81
Central Division							
Laucala Bay (Suva) (1942-2022)	233.2	65.4	79.8	91.2	158.1	123.3	24/81
Nausori Airport (1957-2022)	264.2	48.9	116.4	92.6	134.2	118.5	32/66
Tokotoko (Navua) (1945-2022)	258.5	113.5	118.5	140.6	210.7	171.4	18/77
Eastern Division							
Lakeba (1950-2022)	38.3	26.3	40.8	48.3	80.1	58.6	20/71
Vunisea (Kadavu) (1931-2022)	165.4	27.0	17.3	84.8	130.9	97.8	3/85
Ono-i-Lau (1943-2022)	71.5	10.0	75.4	59.3	105.3	73.1	40/75
Northern Division							
Labasa Airport (1946-2022)	108.3	33.5	90.7	22.2	45.6	32.8	57/67
Savusavu Airfield (1956-2022)	136.0	102.2	111.6	54.3	105.8	83.0	47/66
Udu Point (1946-2022)	130.5	88.2	282.9	62.3	99.2	80.9	72/73
Rotuma (1912-2022)	230.1	190.8	162.0	172.9	265.3	217.6	36/107

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 May to July 2022**

Station	Three-month Total		33%tile	67%tile	Median	Rank
	Rainfall (mm)					
Western Division						
Penang Mill (1910-2022)	221.9	Normal	169.0	303.3	258.0	51/113
Lautoka Mill (1900-2022)	114.5	Below normal	140.6	219.9	179.2	27/122
Nadi Airport (1942-2022)	159.9	Normal	140.5	241.5	174.5	33/80
Central Division						
Laucala Bay (Suva) (1942-2022)	378.4	Below normal	447.5	615.2	516.2	16/81
Nausori Airport (1957-2022)	429.5	Below normal	430.9	580.8	501.4	22/66
Tokotoko (Navua) (1945-2022)	490.5	Below normal	555.0	743.1	643.0	16/77
Eastern Division						
Lakeba (1950-2022)	105.4	Below normal	250.3	364.1	318.4	3/70
Vunisea (Kadavu) (1931-2022)	209.7	Below normal	342.3	450.5	392.5	10/84
Ono-i-Lau (1943-2022)	156.9	Below normal	237.9	373.1	315.5	9/71
Northern Division						
Labasa Airport (1947-2022)	232.5	Normal	160.4	266.1	199.0	38/66
Savusavu Airfield (1957-2022)	349.8	Normal	297.4	446.9	370.7	28/62
Udu Point (1946-2022)	501.6	Above normal	305.4	475.4	373.6	54/72
Rotuma (1912-2022)	582.9	Below normal	692.5	888.5	800.2	18/106

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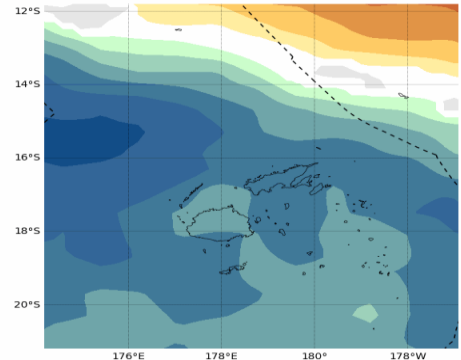
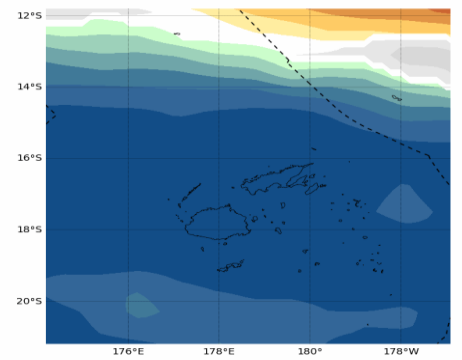
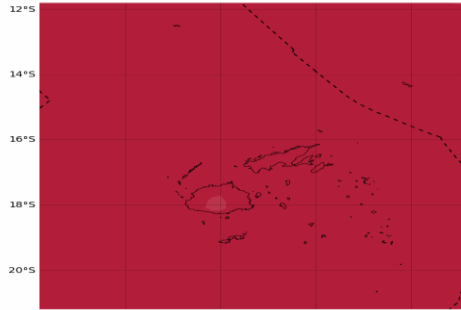
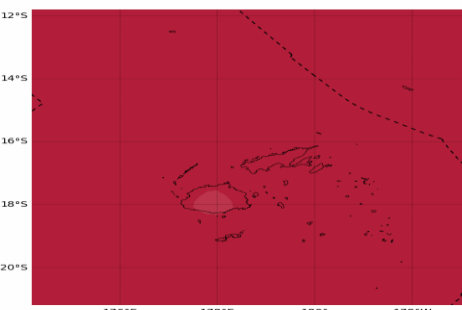
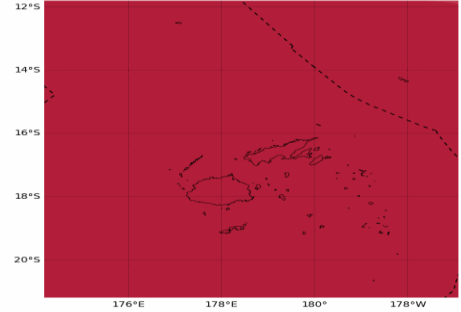
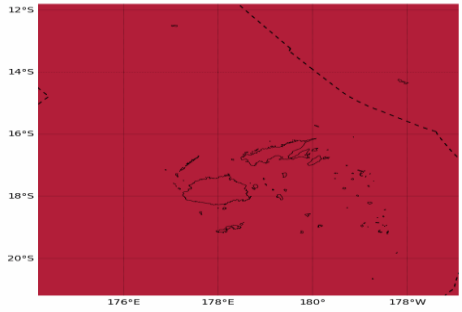
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# Part 1i. Monthly and Seasonal Outlooks for September and September to November 2022

Monthly: September	Seasonal: September to November
Rainfall (Image 1)	Rainfall (Image 2)
<p>Tercile rainfall probabilities for September 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flemish Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2006M), version 11. Available online at <a href="http://www.maritimegeography.org/">http://www.maritimegeography.org/</a></p>	<p>Tercile rainfall probabilities for September to November 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flemish Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2006M), version 11. Available online at <a href="http://www.maritimegeography.org/">http://www.maritimegeography.org/</a></p>
Monthly maximum temperature (Image 3):	Seasonal maximum temperature (Image 4):
<p>Tercile maximum temperature probabilities for September 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flemish Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2006M), version 11. Available online at <a href="http://www.maritimegeography.org/">http://www.maritimegeography.org/</a></p>	<p>Tercile maximum temperature probabilities for September to November 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flemish Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2006M), version 11. Available online at <a href="http://www.maritimegeography.org/">http://www.maritimegeography.org/</a></p>
Monthly minimum temperature (Image 5):	Seasonal minimum temperature (Image 6):
<p>Tercile minimum temperature probabilities for September 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flemish Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2006M), version 11. Available online at <a href="http://www.maritimegeography.org/">http://www.maritimegeography.org/</a></p>	<p>Tercile minimum temperature probabilities for September to November 2022</p>  <p>Base period: 1981-2018 Model: ACCESS-S2 © Commonwealth of Australia 2022, Australian Bureau of Meteorology Shapefile data extracted from Flemish Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (2006M), version 11. Available online at <a href="http://www.maritimegeography.org/">http://www.maritimegeography.org/</a></p>

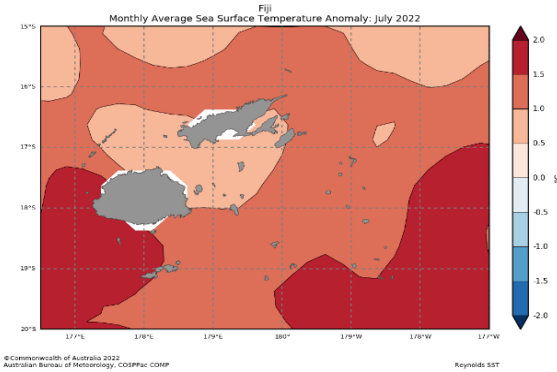
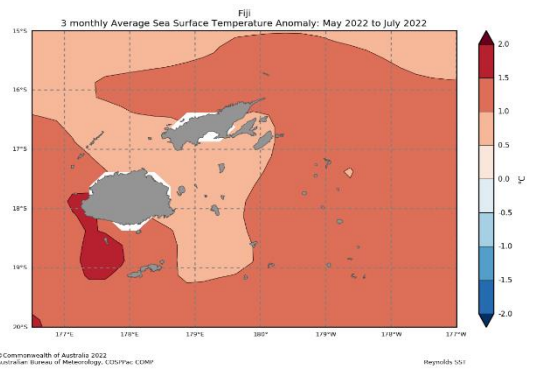
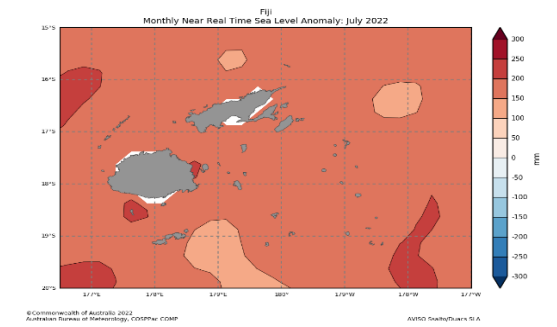
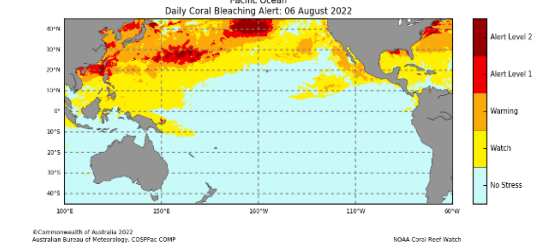
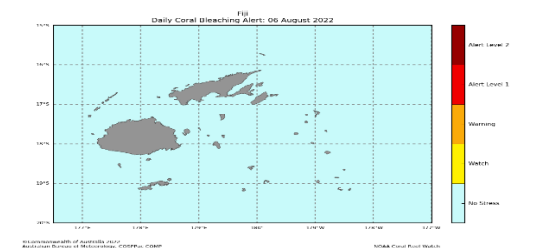
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Part 2: Recent Ocean Observation

Monthly: July 2022

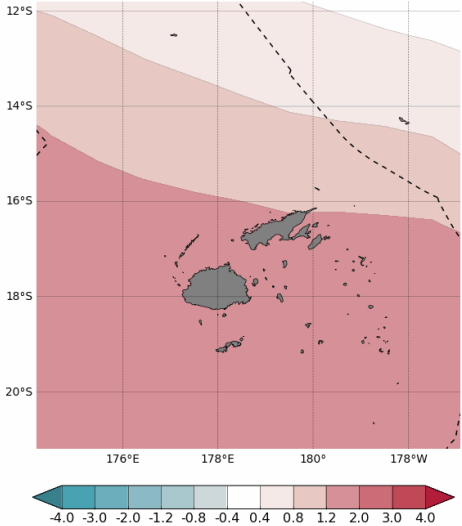
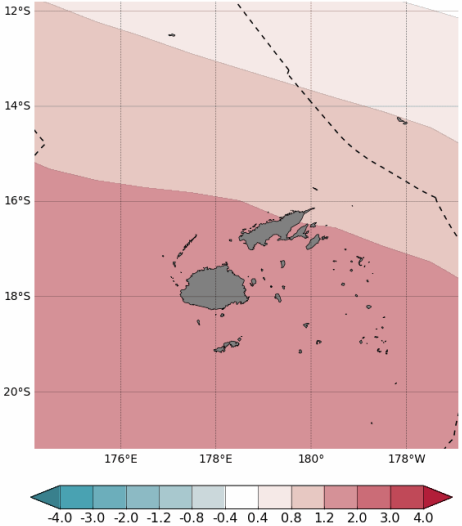
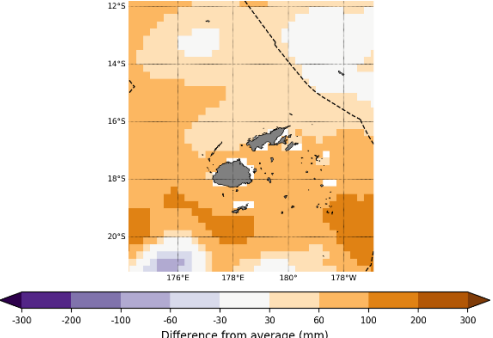
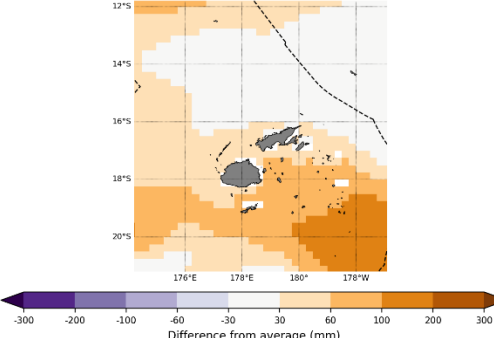
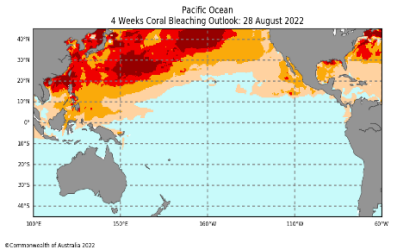
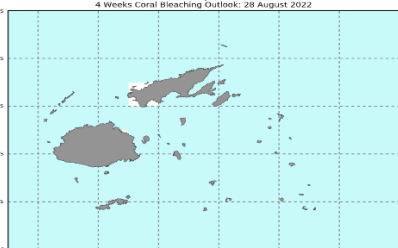
<p>Monthly: July</p>	<p>Last three months: May to July 2022:</p>
<p>Sea Surface Temperature (Image 1):</p>	<p>Sea Surface Temperature (Image 4):</p>
	
<p>Sea level (Image 2):</p>	
	
<p>Daily coral bleaching alert (Image 3):</p>	
	

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## Part 2i. Monthly and Seasonal Outlooks for September and September to November 2022

Monthly: September	Seasonal: September to November
Monthly sea surface temperature (Image 5):	Seasonal sea surface temperature (Image 6):
<p>Difference from average sea surface temperature forecast for September 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 and Exclusive Economic Zones (200NM), version 1.1. Available online at <a href="http://www.maritimeresources.org/">http://www.maritimeresources.org/</a></p> <p>Model run: 13/08/2022 Issued: 15/08/2022</p>	<p>Difference from average sea surface temperature forecast for September to November 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 and Exclusive Economic Zones (200NM), version 1.1. Available online at <a href="http://www.maritimeresources.org/">http://www.maritimeresources.org/</a></p> <p>Model run: 13/08/2022 Issued: 15/08/2022</p>
Monthly sea level (Image 7):	Seasonal sea level (Image 8):
<p>Difference from average sea surface height forecast for September 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/07/2022 Issued: 03/08/2022</p>	<p>Difference from average sea surface height forecast for September to November 2022</p>  <p>© Commonwealth of Australia 2022 Bureau of Meteorology</p> <p>Model: ACCESS-S2 Base Period: 1981-2018</p> <p>Model Run: 28/07/2022 Issued: 03/08/2022</p>
4-week Coral Bleaching (Image 9):	
<p>Pacific Ocean 4 Weeks Coral Bleaching Outlook: 28 August 2022</p>  <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, CSIRO/PhU/CCMP</p> <p>NOAA Coral Reef Watch</p>	<p>Fiji 4 Weeks Coral Bleaching Outlook: 28 August 2022</p>  <p>© Commonwealth of Australia 2022 Australian Bureau of Meteorology, CSIRO/PhU/CCMP</p> <p>NOAA Coral Reef Watch</p>

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## Summary Statement

### Monthly and last three months: July 2022/May to July 2022 statement (Highly significant changes)

For July 2022, *above normal* rainfall was recorded across Northern Division. *Near normal* rainfall was registered at Penang Mill, Nausori Airport and Ono-I-Lau. *Below normal* rainfall was recorded at Lautoka Mill, Nadi Airport, Laucala Bay (Suva), Tokotoko (Navua), Lakeba, Vunisea (Kadavu) and Rotuma. Lautoka Mill recorded its driest July in 122 years of record, while Vunisea (Kadavu) recorded its third driest July in 85 years of record. Udu point recorded its second wettest July in 73 years of record.

For May to July 2022, *near normal* to *below normal* rainfall was recorded across Fiji, except for Udu Point which recorded *above normal* rainfall. Lakeba recorded its third driest May to July in 70 years of record, while Ono-i-Lau recorded its ninth driest May to July in 71 years of record.

## Part 1i. Monthly and Seasonal Outlooks for September and September to November 2022

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

Fiji's rainfall during September and September to November 2022 is very likely to be *above normal*, except for Rotuma where there is little guidance as the chances of *above normal*, *normal* and *below normal* rainfall are similar.

Both maximum and minimum temperatures for Fiji for September and September to November 2022 are very likely to be *above normal*.

## Part 2: Recent Ocean summary statement

### Monthly and last three months: July/May to July 2022 (Highly significant changes)

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

For the May to July 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 and around Vatulele.

The sea level anomaly across Fiji in July 2022 was significantly higher than normal, with waters part of Lomaiviti Group, Vatulele and parts of southern Lau Group in the range of 200 to 250 mm above average.

Coral bleaching alert reveals no thermal stress.

## Part 2i. Monthly and Seasonal Outlooks for September and September to November 2022

### Ocean Variable statement (Highly significant changes)

The monthly and seasonal SST outlook for September and September to November shows a significant temperature difference of 1.2-2.0°C *above normal* for majority of Fiji Waters.

The monthly sea level outlook for September reveals significant sea surface height differences of 100mm to 200mm for the waters south of Kadavu and parts southern Lau Group. Similar sea level forecasted for seasonal outlook with significant sea level differences of 100mm to 200mm above normal over southern Lau group.

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

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

Product	Date: July 2022	Stakeholder	Total Number of Participants	Number of male	Number of female
Fiji Climate Summary	07/07/22	General Public	140	106	34
EAR Watch	12/07/22	Humanitarian partners	122	96	26
Fiji Climate Outlook	29/04/22	General public	124	93	31
ENSO Update	25/07/22	General Public	142	116	26
Climate Outlook for Monasavu	29/07/22	Energy Fiji Limited	13	13	-
Fiji Sugarcane Climate Outlook	29/07/22	Sugar Industry stakeholders	77	60	17
Meteorological Data Request	01/07/22 to 31/07/22	A range of stakeholders	41	31	10
<b>Total</b>			<b>659</b>	<b>515</b>	<b>144</b>

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