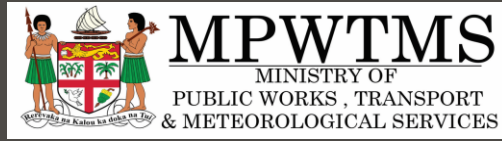


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NEXT ISSUE: December 29, 2023

VOLUME 17: ISSUE 12



FIJI CLIMATE OUTLOOK

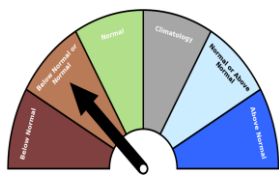
DECEMBER 2023;

DECEMBER 2023 TO FEBRUARY 2024;

MARCH TO MAY 2024

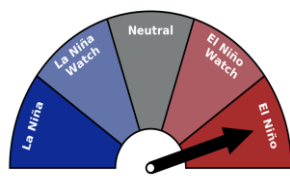
Fiji Meteorological Service

HIGHLIGHTS



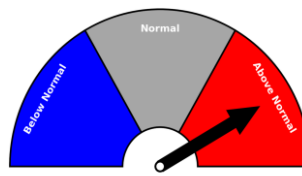
Below Normal or Normal

Rainfall Outlook



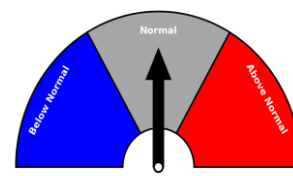
El Niño

ENSO Outlook



Above Normal

Max Temperature Outlook



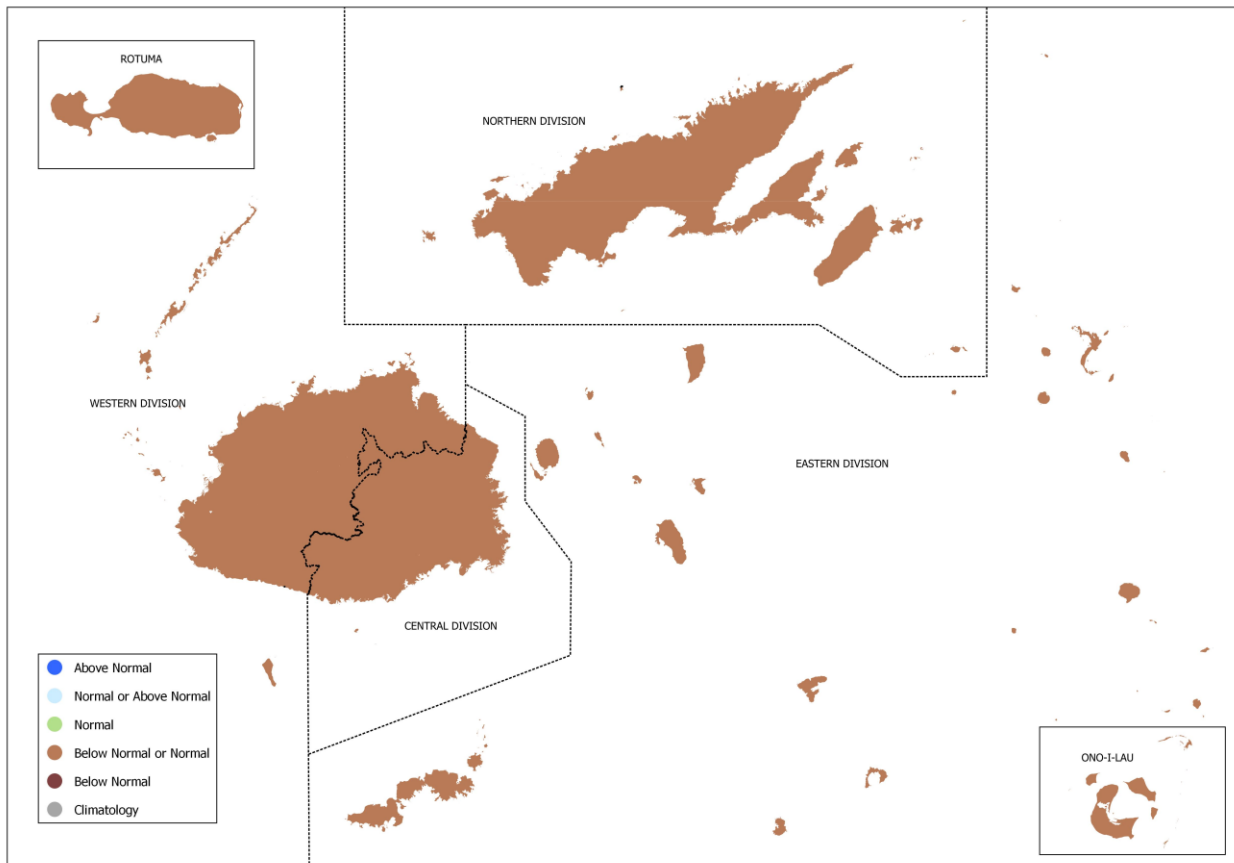
Normal

Min Temperature Outlook

- El-Niño Southern Oscillation (ENSO) is currently in a moderate El Niño state.
- During December 2023, *normal* or *below normal* rainfall is likely for the Fiji Group.
- For December 2023 to February 2024 period, *normal* or *below normal* rainfall is likely for the Fiji Group, while *near normal* rainfall is likely for Rotuma.
- During March to May 2024, *below normal* rainfall is likely for the Fiji Group. *Near normal* or *above normal* rainfall is likely for Rotuma.
- Notably, as we are now in the tropical cyclone season, development of a tropical disturbance or depression, can result in *above normal* rainfall, during the above mentioned periods.
- During December 2023, maximum temperature is likely to be *above normal* across Western, Central, Northern Divisions and Rotuma, with *near normal* temperatures likely across Eastern Division. Night time temperatures are likely to be *near normal* across Western, Central and Eastern Divisions, with *above normal* temperatures likely across the Northern Division and Rotuma. Cooler than normal night time temperatures are likely for the interior of Viti Levu.
- For December 2023 to February 2024, both maximum and minimum temperatures are likely to be *above normal* across the Fiji Group.
- Overall, the current El Niño event is likely to reach its peak period during the December 2023 to February 2024 period.
- Historically, Fiji experiences *below normal* rainfall during an El Niño event.

RAINFALL OUTLOOK

DECEMBER 2023



Western Division: *Normal or below normal* rainfall

Central Division: *Normal or below normal* rainfall

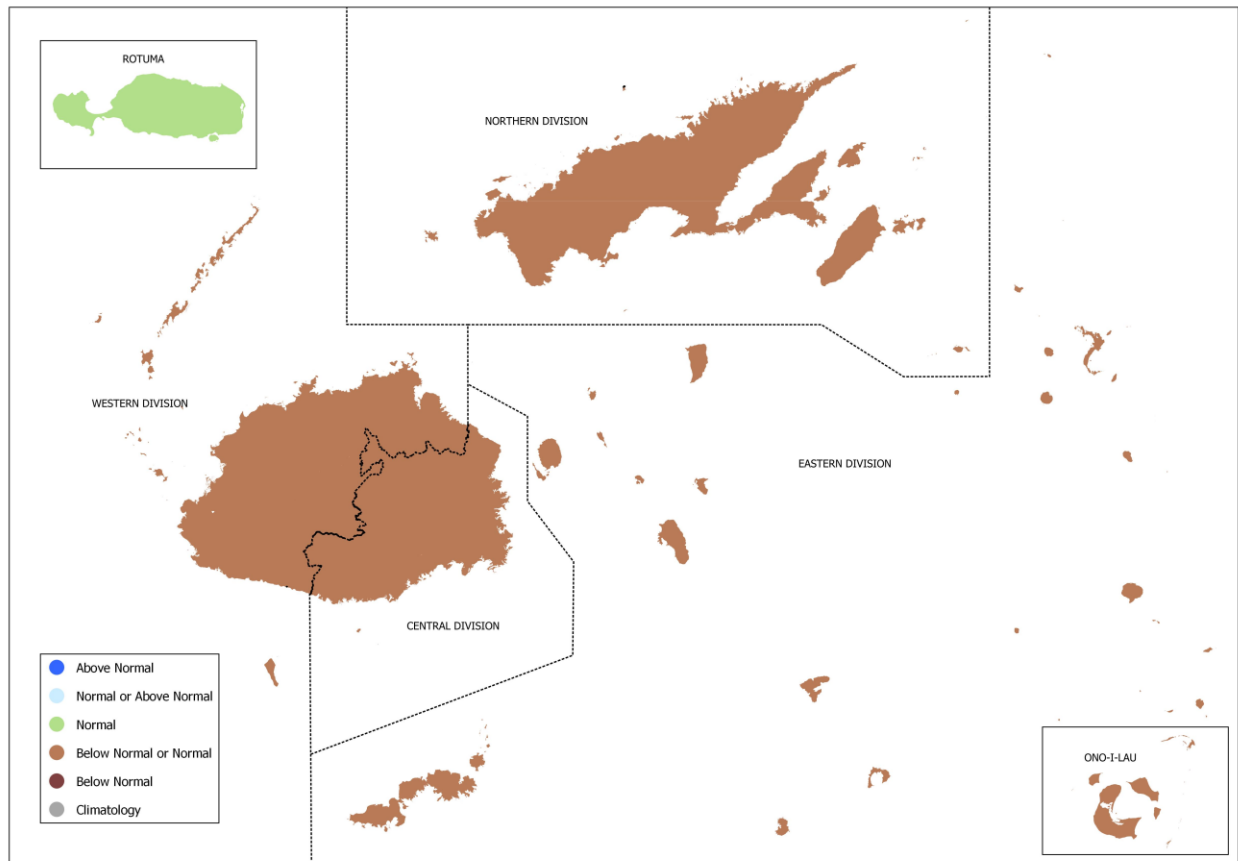
Northern Division: *Normal or below normal* rainfall

Eastern Division: *Normal or below normal* rainfall

Rotuma: *Normal or below normal* rainfall

RAINFALL OUTLOOK

DECEMBER 2023 TO FEBRUARY 2024



Western Division: *Normal or below normal* rainfall

Central Division: *Normal or below normal* rainfall

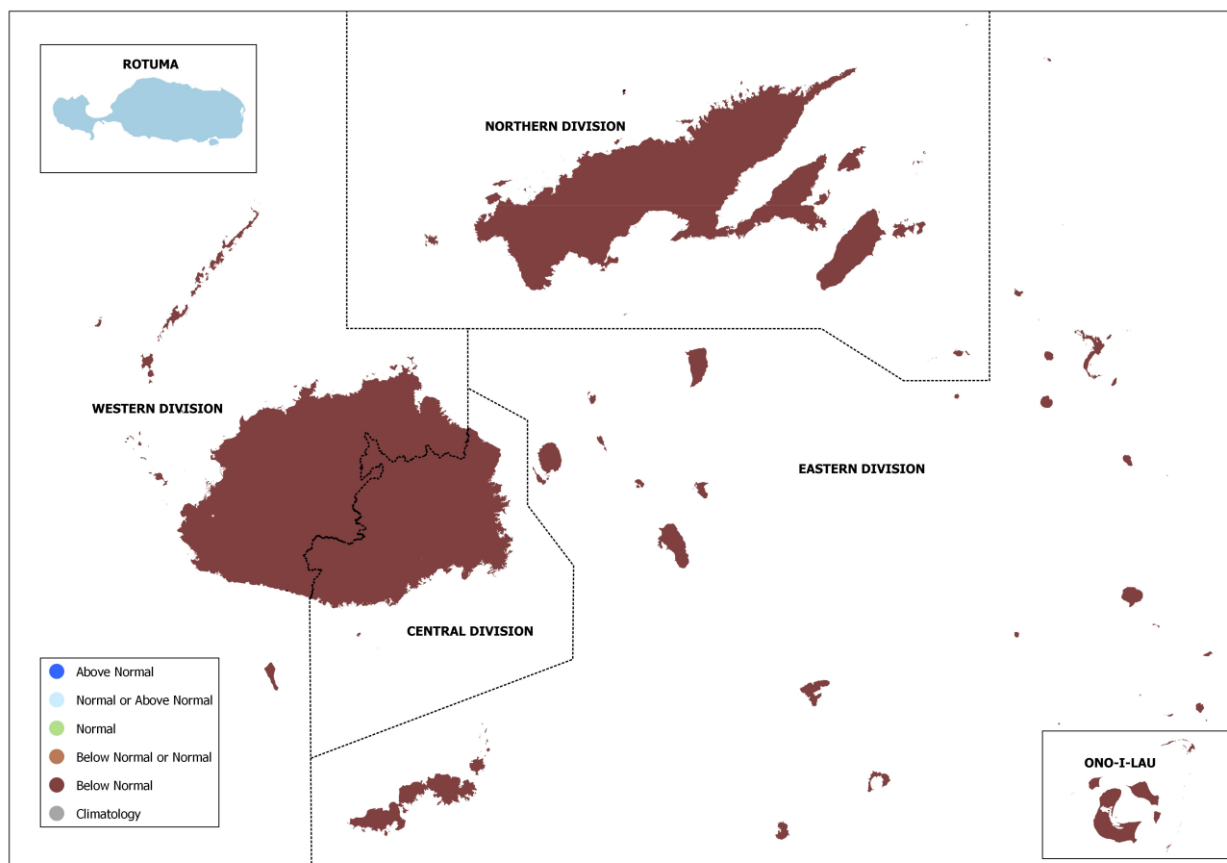
Northern Division: *Normal or below normal* rainfall

Eastern Division: *Normal or below normal* rainfall

Rotuma: *Near normal* rainfall

RAINFALL OUTLOOK

MARCH TO MAY 2024



Western Division: *Below normal* rainfall

Central Division: *Below normal* rainfall

Northern Division: *Below normal* rainfall

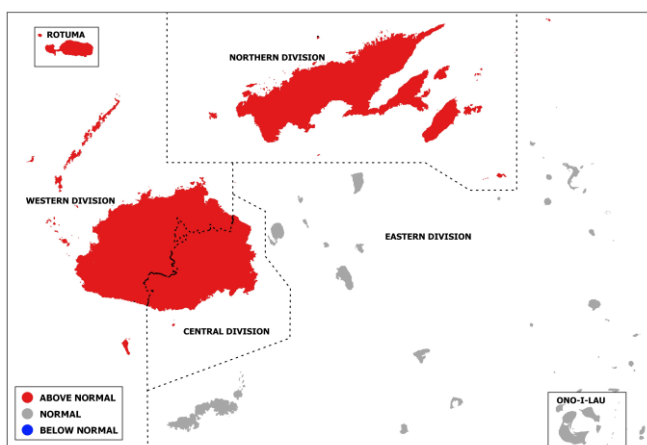
Eastern Division: *Below normal* rainfall

Rotuma: *Normal or above normal* rainfall

AIR TEMPERATURE OUTLOOK

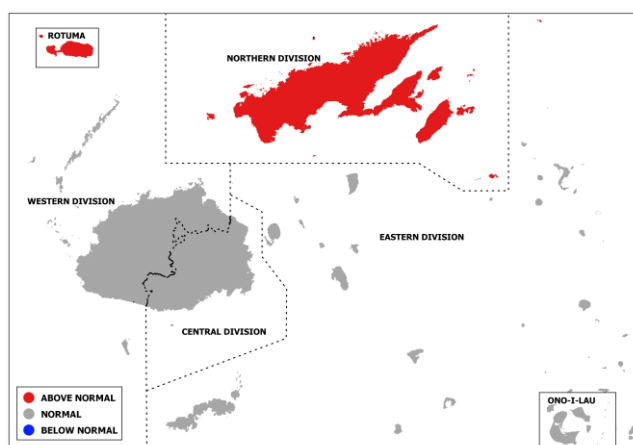
DECEMBER 2023

Maximum Temperature



Maximum temperature is likely to be *above normal* across Western, Central, Northern Divisions and Rotuma, with *near normal* temperatures likely across Eastern Division.

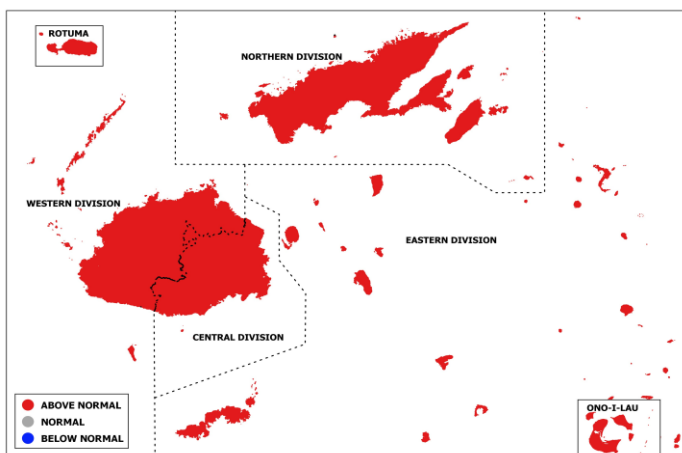
Minimum Temperature



Minimum temperature is likely to be *near normal* across Western, Central and Eastern Divisions, with *above normal* temperatures likely across Northern Division and Rotuma.

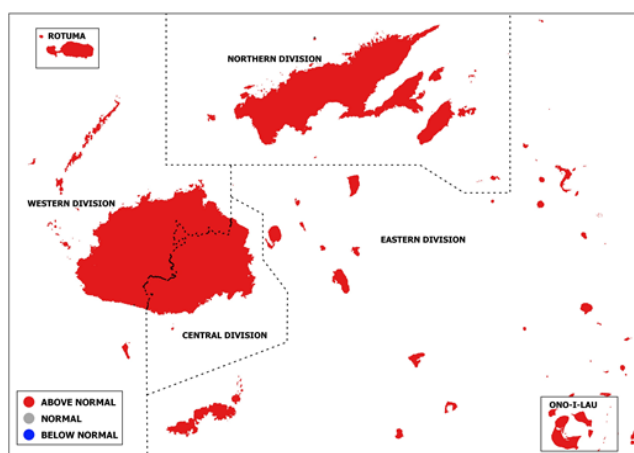
DECEMBER 2023 TO FEBRUARY 2024

Maximum Temperature



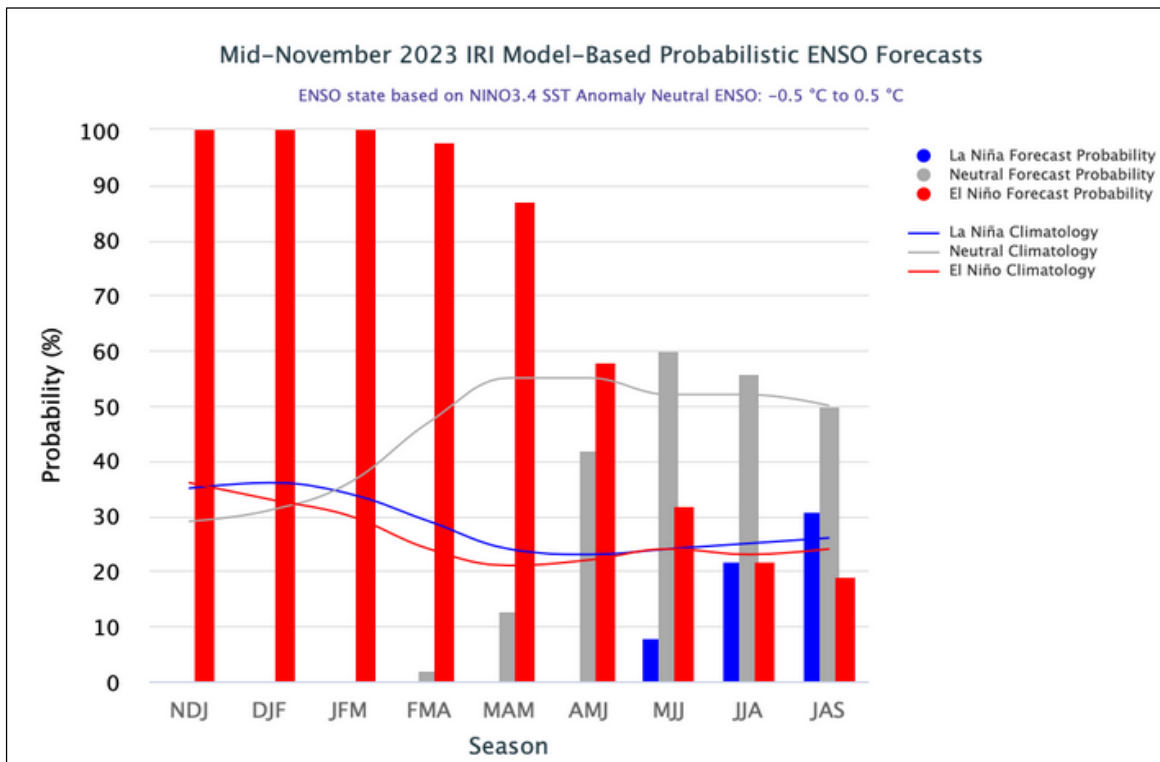
Maximum temperature is likely to be *above normal* across the Fiji Group.

Minimum Temperature



Minimum temperature is likely to be *above normal* across the Fiji Group.

EL-NIÑO SOUTHERN OSCILLATION (ENSO)



Source: [International Research Institute for Climate and Society](#)

El-Niño Southern Oscillation (ENSO) is currently in a moderate El-Niño state.

Sea surface temperatures (SSTs) are further likely to warm and remain above El Niño thresholds until at least March 2024.

The current El Niño is likely to reach its peak period during the December 2023 to February 2024 period.

Fiji usually experiences below normal rainfall during an El Niño event.

Climate (Rainfall/Air Temperature) Outlook

Above normal – indicates that the rainfall/temperature value lies in the highest third of observation recorded in the standard 30 year normal period.

Near normal – indicates that the rainfall/temperature value lies in the middle third of observation recorded in the standard 30 year normal period.

Below normal – indicates that the rainfall/temperature value lies in the lowest third of observation recorded in the standard 30 year normal period.

Climatology – means that there are almost equal chances of receiving below normal, normal and above normal rainfall. Outlook does not favour one extreme; neither below normal nor above normal.

El Niño Southern Oscillation (ENSO)

ENSO is the principal driver of the year-to-year variability of Fiji's climate. There are two extreme phases of this phenomenon, *El Niño* and *La Niña*.

El Niño or La Niña events are a natural part of the global climate system and usually recur after every 2 to 7 years. It normally develops during the period April to June, attains peak intensity between December to February and decays between April to June period the following year. While most events last for a year, some have persisted for up to 2 years. It should be also noted that no two El Niño or La Niña events are the same. Different events have different impacts, but most exhibit some common climate characteristics.

Usually there is a lag effect on Fiji's climate with ENSO events, that is, once an El Niño or La Niña event is established in the tropical Pacific, it may take 2-6 months before its impact is seen on Fiji. Similarly, once an event finishes, it can take 2-6 months for climate to normalise.

El Niño events are associated with warming of the central and eastern tropical Pacific. El Niño events usually result in reduction of Fiji's rainfall. Often the whole of Fiji is affected in varying degrees and it is quite unusual for one part of the country to experience a prolonged dry spell, while the other is in a wet spell. The relationship and level of rainfall suppression is greater in the Dry Zone than in the Wet Zone. It is the suppression of rainfall during the Cool/Dry Season (May to October) that is normally of most concern. A reduction in Cool/Dry Season rainfall in the Dry Zone results in little or no rainfall until the next Wet Season. While usually the strength of an ENSO event is proportional to its impact on Fiji, at times weak event can also have a significant impact.

La Niña events are associated with cooling of the central and eastern tropical Pacific. Usually La Niña results in wetter than normal conditions for Fiji, occasionally leading to flooding during the Warm/Wet Season (November to April).

When ENSO is neutral, that is, neither El Niño nor La Niña, it has little effect on global climate, meaning other climate influences are more likely to dominate.

Lag effects – means that there is a delay in a change of some aspect of climate due to influence of other factors that is acting slowly.

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