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FIJI CLIMATE OUTLOOK

APRIL 2023; APRIL TO JUNE 2023; JULY TO SEPTEMBER 2023

Fiji Meteorological Service



- During April 2023, there is little guidance provided, as there is almost equal chances of *below normal*, *normal* and *above normal* rainfall across the Fiji Group.
- For April to June period *normal* or *above normal* rainfall is likely across the Fiji Group. There is little guidance for Rotuma with almost equal chances of *below normal, near normal and above normal* rainfall.
- During July to September 2023 period, there is little guidance for whole of Fiji Group, with almost equal chances of *below normal*, *near normal* and *above normal* rainfall. *Near normal* or *below normal* rainfall is likely for Rotuma.
- The air temperatures are likely to be *above normal* across the country during April, as well as the April to June period.
- El-Niño Southern Oscillation (ENSO) is currently in a neutral state, which is neither El-Niño nor La Niña.
- Climate models indicate that ENSO-neutral conditions are likely to persist until at least during the May to July 2023 period.
- Event is likely to transition to El Niño state during July to August and continue through towards the end of 2023.

RAINFALL OUTLOOK

APRIL 2023



Western Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Central Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Northern Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Eastern Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Rotuma: Almost equal chances of below normal, normal and above normal rainfall

RAINFALL OUTLOOK

APRIL TO JUNE 2023



Western Division: Normal or above normal rainfall

Central Division: Normal or above normal rainfall

Northern Division: Normal or above normal rainfall

Eastern Division: Normal or above normal rainfall

Rotuma: Almost equal chances of below normal, normal and above normal rainfall

RAINFALL OUTLOOK

JULY TO SEPTEMBER 2023



Western Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Central Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Northern Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Eastern Division: Almost equal chances of *below normal*, *normal* and *above normal* rainfall

Rotuma: Normal or below normal rainfall likely

AIR TEMPERATURE OUTLOOKS

APRIL 2023



APRIL TO JUNE 2023



Above normal air temperatures are likely over the Fiji Group during April 2023, and as well as the April to June 2023 season.

EL-NIÑO SOUTHERN OSCILLATION (ENSO)



Source: International Research Institute for Climate and Society

El-Niño Southern Oscillation (ENSO) is currently in a neutral state, which is neither El-Niño nor La Niña.

Climate models indicate that ENSO-neutral conditions are likely to continue to persist until at least during the May to July 2023 period.

Event is likely to transition to El Niño state during July to August and continue through towards the end of 2023.

The model predictions for later part of the year at this time have lower accuracy. Thus, FMS will monitor the ENSO conditions closely and provide updates accordingly.

EXPLANATORY NOTES

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 equal chances of receiving below normal, normal and above normal rainfall.

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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