

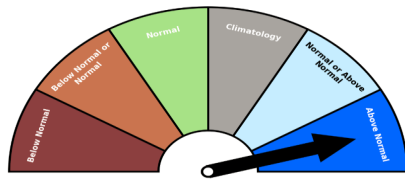
# Fiji Sugarcane Climate Outlook from February 2023 Planting Season

Volume 19

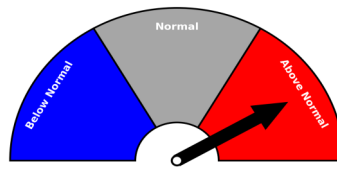
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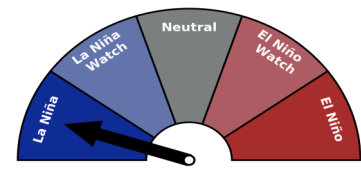
## Key Messages



**Above Normal**  
Rainfall Outlook



**Above Normal**  
Air Temperature Outlook



**La Niña**  
ENSO Outlook

### English

- The sugarcane growing areas have received above average rainfall in the last 3 months (October-December).
- The Fiji Meteorological Services has predicted that there are high chances of receiving above average rainfall in the forthcoming months (February-April) due to a weak La Niña event in the Pacific Ocean.
- With the La Niña event in place, farmers can expect frequent rainfall (which can be heavy at times), strong winds (damaging at times), drop in night temperatures and low-pressure systems.
- The predicted rainfall and forecast for warmer air conditions will favour rapid weed germination and growth and growers must adopt integrated weed management that includes manual weeding followed by weedicides application to control the weeds.
- Land preparation for 2023 season planting should commence in early March and planting of cane to be planned from mid-March to mid-May.
- Soil sampling activity to be carried out in fields fallowed for planting.
- Farmers are advised to source certified seed material only and to contact their sector farm advisors (FA) for available certified seedcane in their sectors.
- Farmers must ensure that the field and main drains in and around their farms are cleaned to allow easy drainage of excess water from the fields to avoid water logging conditions. Cane growing in water-logged environment will undergo stress, with irregular internode length, decrease in stalk height and weight and tiller production, causing a loss in yield.
- For further advice, please contact SRIF on 8921839.

**Hindi**

- Ganna ugaane vaale kshetron mein pichhale teen maheenon (October-December) mein saamaany se adhik varsha huee hai.
- Fiji mausam kaaryaalay ne anumaan lagaya hai kee aane vaale maheenon (February-April) mein kamajor La Niña ke kaaran ganna ugaane vaale kshetron mein saamaany se adhik varsha hone kee sambhaavana hai.
- La Niña kee ghatana ke saath, kisaan baar-baar baarish (jo kabhee-kabhee bhaaree ho sakatee hai), tej havaen (kabhee-kabhee haanikaarak), raat ke taapamaan mein giraavat aur low pressure kee ummeed kar sakate hain.
- Garm hava kee sthiti aur anumaanit baarish ke kaaran ghaas ke vikaas mein badhanti hogi, aur ghaas maarane kee davaee ka upayog karake, kisaanon kee nigaraanee me ghaas par niyantran paaya ja sakata hai.
- 2023 season ke liye zameen kee taiyaaree March ke shuruwaat mein shuroo honee chaahie aur ganne kee buvae March ke madhy se May ke madhy tak karane kee yojana banaee jaanee chaahie.
- Ropan ke liye khaalee pade kheton mein mittee ka pareekshan kiya jaana chaahie.
- Kisaanon ko salaah dee jaatee hai ki ve pramaanit beej hee praapt karen aur apane kshetron mein upalabdh pramaanit beej ganna ke liye apane kshetr ke salaahakaaron ko sampark karen.
- Kisaanon ko yah sunishchit karana chaahie ki unake kheton mein aur usake aasapaas ke kshetr aur mukhy naaliyon ko saaph kiya jae taaki jal jamaav kee sthiti se bachane ke liye kheton se atirikt paanee nikal sake. Jal jamaav vaale vaataavarana mein ugane vaale ganne ko tilar utpaadan mein kamee ke saath tanaav se gujarana hoga, jis se upaj mein kamee aayegee.
- Aur salaah ke liye 8921839 par SRIF ko sampark kare.

**I -Taukei**

- E laurai ni levu cake sara na uca ka tara na noda vanua ni tei dovu e na vula ko Okotova ki na Tiseba
- Me vaka ni tara toka na noda wase ni Pasifika na 'La Niña', e ratou wasea na Tabana Ni Draki ni na rawa ni namaki me na levu na uca me na tara na noda vanua ni tei dovu e na vula ko Veverueri ki na Evereli.
- E dau namaki me na rawa ni levu na uca, kaukauwa na cagi ka batabata na bogi, e na gauna e tara tiko kina na noda wase ni vuravura na La Niña.
- E na namaki me na totolo na tubu ni co ca e na vuku ni draki ka sa da vakasalataki me na tarai keda e na vica na vula mai oqo. Ko ni sa vakasalataki tale ga na dau teitei mo ni taurivaka na I walewale ni teitei kece ko ni kila, me na rawa ni tarova na tubu ni co ca.
- Sa dodonu me sa tekivu vakarautaki yani na qele e na I tekivu ni vula ko Maji, ka tekivutaki yani na teitei, mai na vula ko Maji ki na vula ko Me.
- E dodonu me na vakadikevi na qele, ka vakavakarautaki yani ki na teitei.
- Ko ni sa vakadreti tale ga na dau tei dovu mo ni vakayagataka na I tei ni dovu ka sa dikevi ka pasitaki oti, ka na rawa oqo e na nomuni veitaratara kei na nomuni dau ni vakasala e na nomuni vanua ni veiqaravi.

## I -Taukei con't

- Ko ni sa vakasalataki na dau tei dovu, me samaki vinaka na loga ni dovu ka vaka tale ga kina na kena saula, me rawa ni drodro vinaka na wai e na gauna ni tau ni uca, ka tarova na kena tubu na dovu e na vanua lolobo se suasua. Ni tubu e na vanua lolobo se suasua na dovu, e na rawa ni vakavuna na tubu gogo ni dovu, tubu leleka, mamada na dovu, ka rawa ni laki vakavuna me lailai na suka e rawa, e na gauna ni qaqi ni dovu.
- Ke so tale na nomuni vakatataro, ni qai qiriti iratou na tabana ni Sugar Research Institute of Fiji (SRIF) ena naba ni talevoni 8921839.

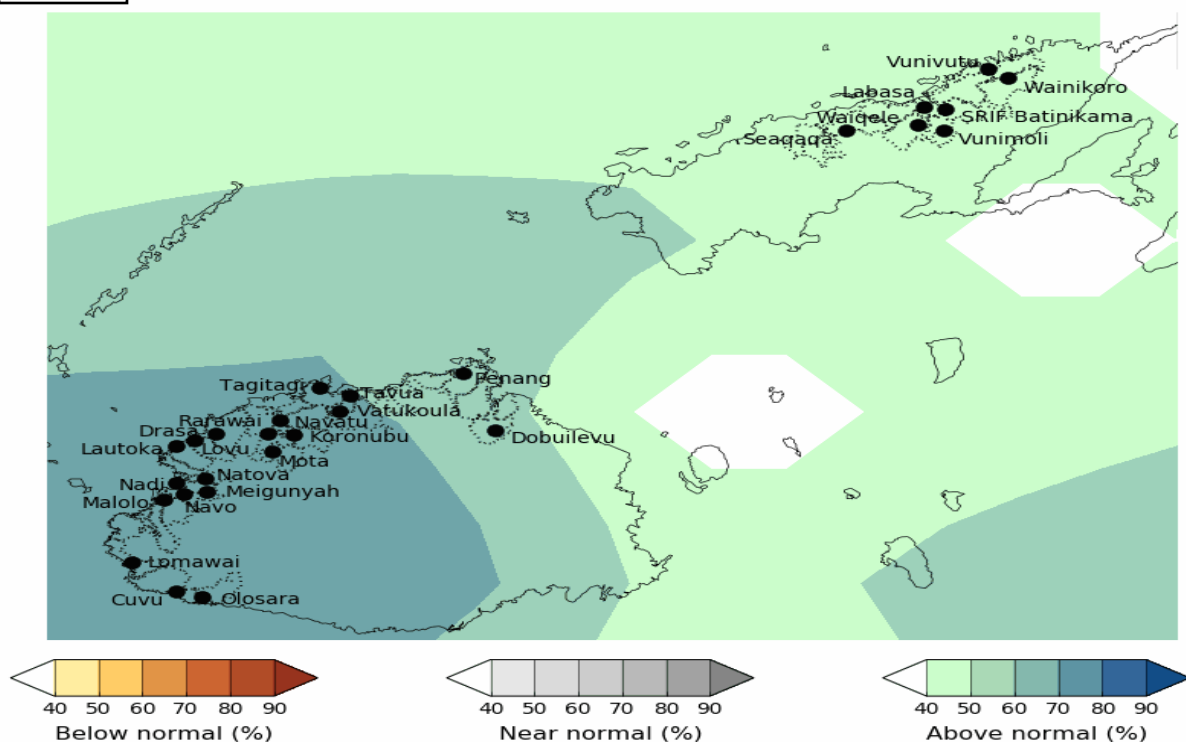
## Climate Outlook

- Rainfall is highly likely to be *above normal* in the sugarcane belts during February to April 2023 (Figure 1), with chances of *above normal* rainfall also favored for the April to June 2023 period (Figure 2).
- With the outlook of *above normal* rainfall, there is an elevated risk of flooding during the wet season until April 2023.
- Air temperatures are likely to be *above normal* across the sugarcane belts during both the February to April 2023 and April to June 2023 periods (Figure 3 & 4).
- La Niña event continues to persist in the tropical Pacific Ocean. Climate models on average suggest a return to ENSO-neutral conditions during February to April 2023.
- January to March is the peak period for tropical cyclone activity in the southwest Pacific. Fiji is likely to be affected by two to three tropical cyclones during the ongoing season, with one to two cyclones likely to reach severe category (Category 3–5).

## Rainfall Outlook: February to April 2023

Figure 1

Tercile rainfall probabilities for February to April 2023



Data source: ACCESS-S2  
Issued: 18/01/2023

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Base period: 1981-2018

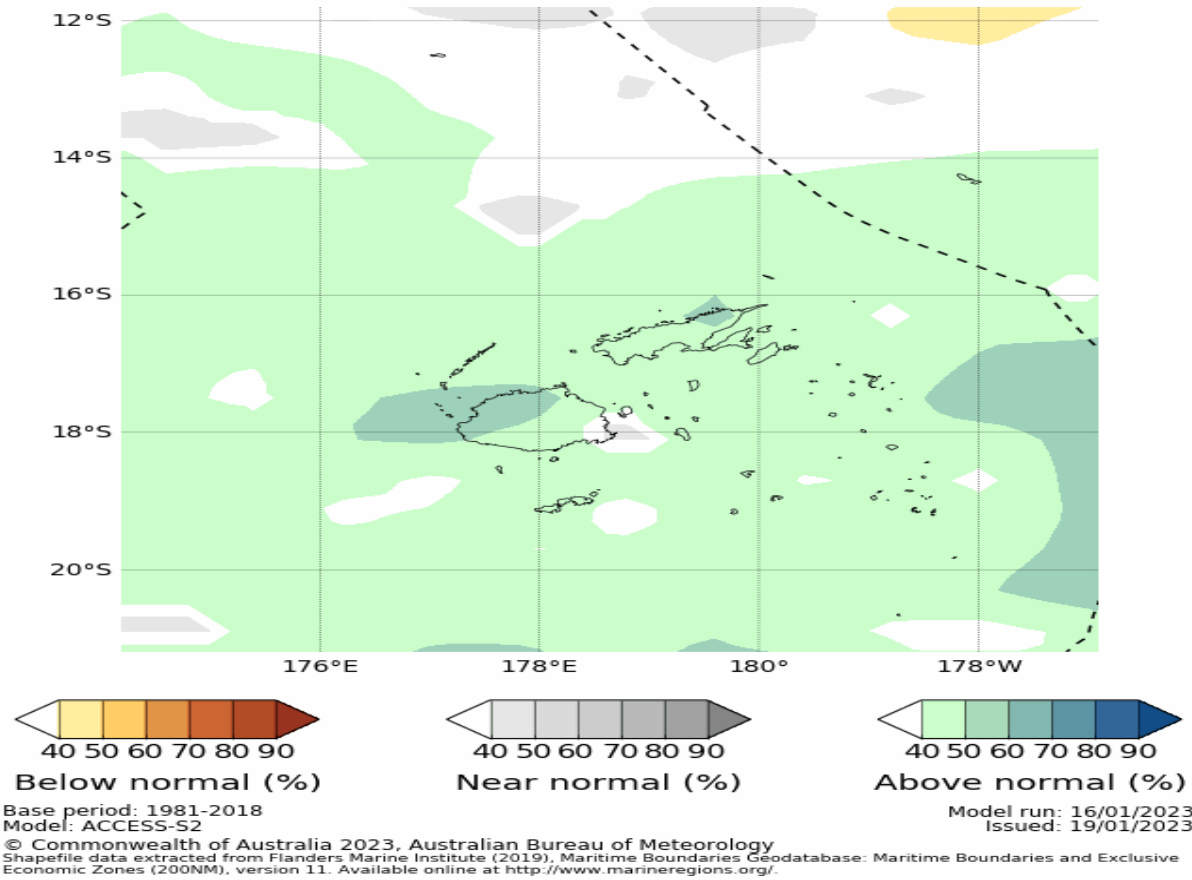
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## Rainfall Outlook: April to June 2023

Figure 2

Tercile rainfall probabilities for April to June 2023



## Air Temperature Outlook: February to April 2023

Figure 3a.

Tercile maximum temperature probabilities for February to April 2023

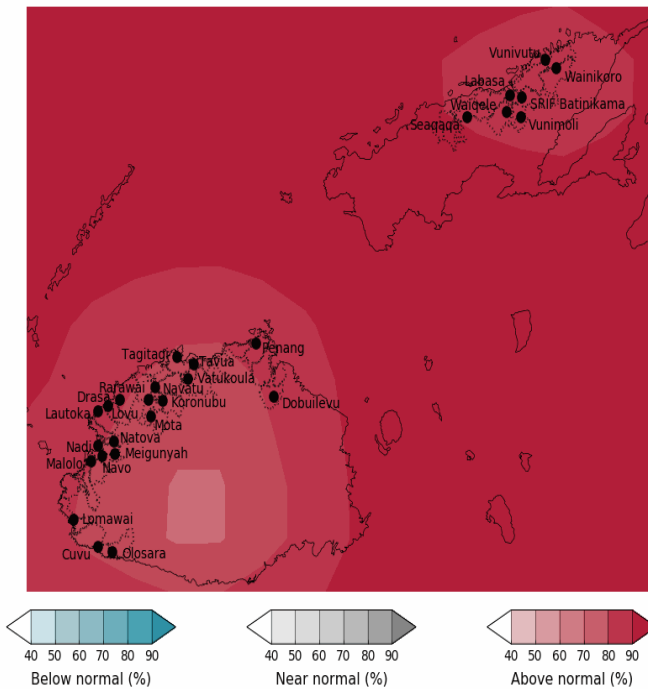
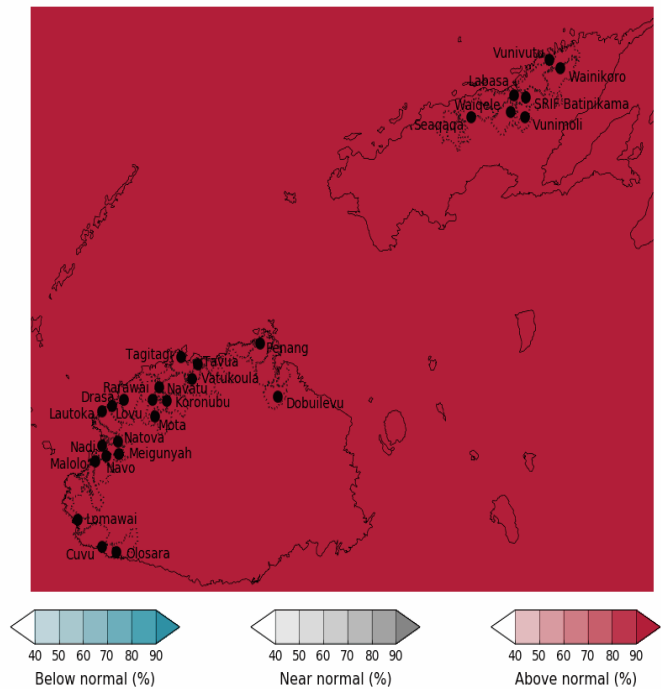


Figure 3b.

Tercile minimum temperature probabilities for February to April 2023

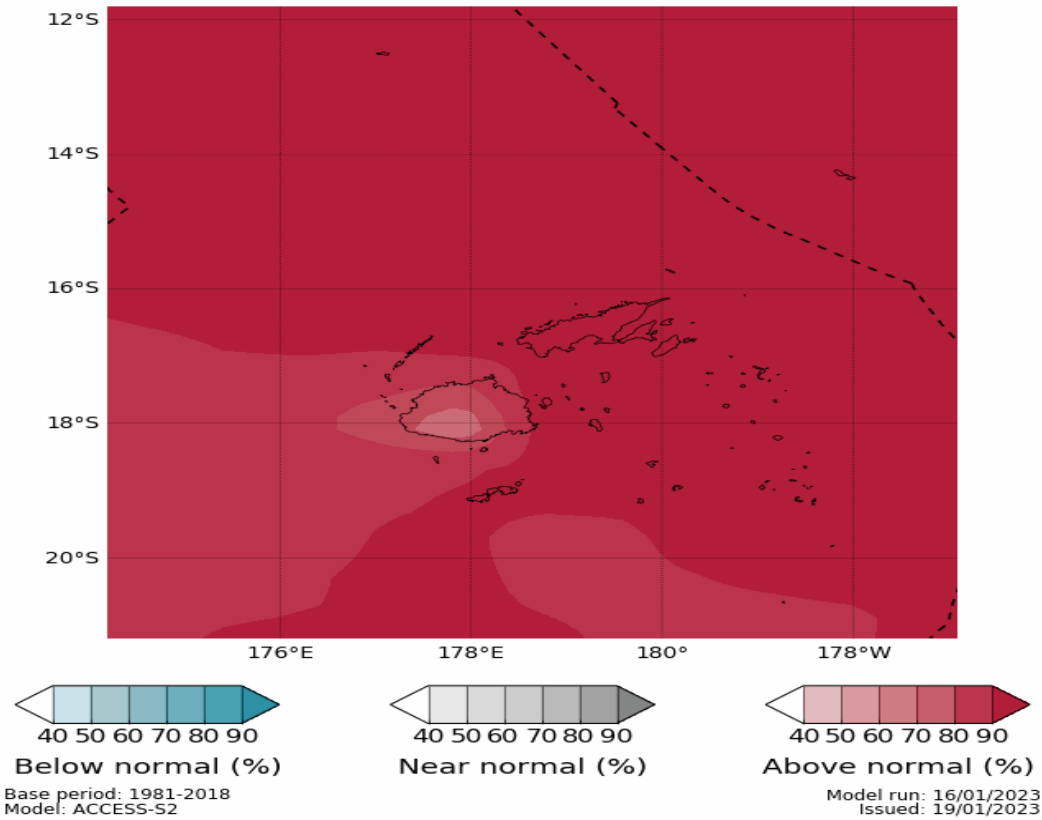


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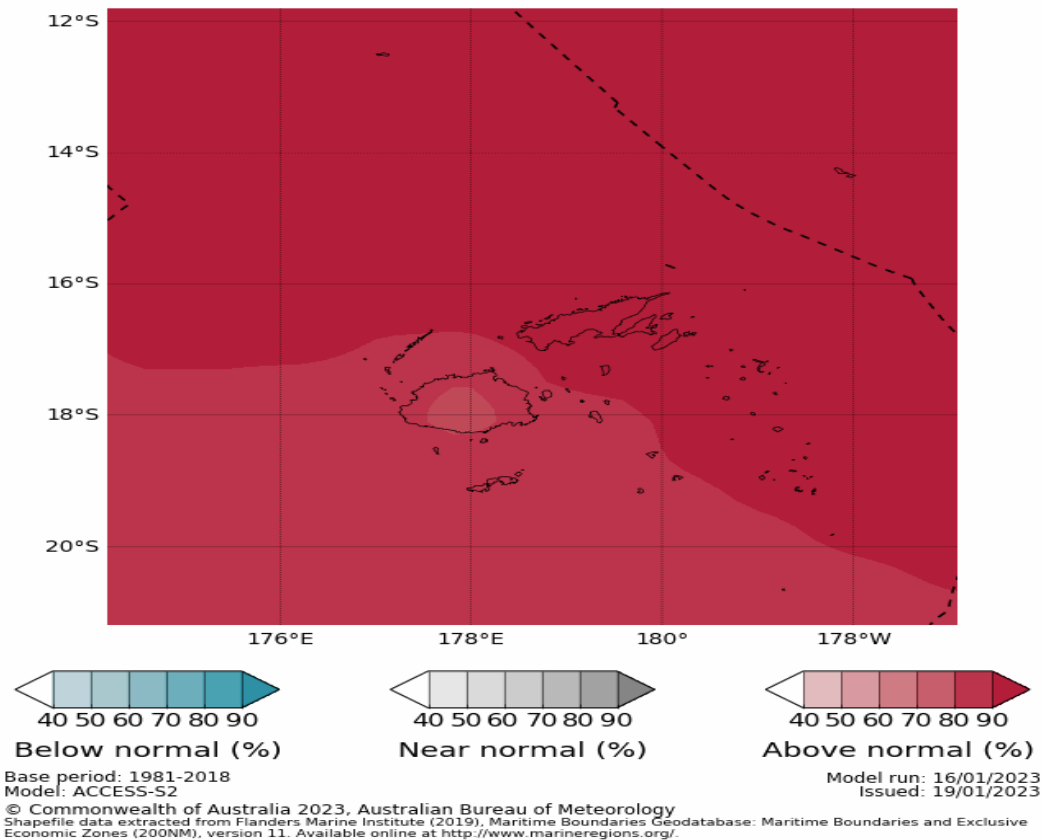
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# Air Temperature Outlook: April to June 2023

**Figure 4a.** Tercile maximum temperature probabilities for April to June 2023



**Figure 4b.** Tercile minimum temperature probabilities for April to June 2023



## Explanatory Notes

### Fiji Sugarcane Climate Outlook

The Fiji Sugarcane Climate Outlook is a collaborative product of the Fiji Meteorological Service (FMS) and the Sugar Research Institute of Fiji (SRIF). It is produced to provide advisories to the farmers and other key sugar industry stakeholders. It aims to provide advanced warning on climate abnormalities for informed decision making. The product is issued four times a year inline with the cycles of the sugarcane farming in Fiji:

- End of January with Outlook from February for the Planting Season;
- End of April with Outlook from May for the Planting & Harvesting Season;
- End of July with Outlook from August for the Harvesting & Crushing Season; and
- End of October with Outlook from November for the Late Harvesting and Maintenance Season.

### 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 phenomena, *El Niño* and *La Niña*.

El Niño or La Niña events 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 the period April to June 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 exactly 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 finish, it can take 2-6 months for climate to normalise.

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 (sugarcane growing areas) 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. Dry Season mean monthly rainfall in the Dry Zone ranges between 40mm and 90mm. 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.

A La Niña event typically has an opposite effect on Fiji's climate resulting in wetter than normal conditions, 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 influences are more likely to dominate.

### Climate (Rainfall/Air Temperature) Outlook

The climate outlook is in tercile format. The *below normal* range is one where rainfall/temperature is less than the 33<sup>rd</sup> percentile. That is, rainfall for the period (in this case three months) which is in the lowest one third of occurrences. Here, three-month rainfall/temperature is arranged for a particular period from the highest on record to lowest on record. Rainfall/temperature below the one-third point would be considered *below normal*. Rainfall/temperature in the middle third would be considered *normal* and upper third *above normal*. For example, a rainfall prediction of 48:31:21, has the highest probability of rainfall in the below normal category (48%). This means that rainfall is most likely to be below normal for the on-coming three months. However, there is still a 31% chance of normal rainfall and 21% chance of above normal rainfall. Similarly, with a prediction of 20:40:40, means normal or above normal rainfall would be expected. In the case of 33:33:34 there are equal chances of receiving below normal, normal or above normal rainfall (climatology). A rainfall prediction of below normal doesn't indicate no rainfall at all.

**Disclaimer:** The seasonal climate outlook provided in this document is presented for the sugar sector and should be used as a guide only. While FMS and SRIF takes all measures to provide accurate information and data, it does not guarantee 100% accuracy of the forecast presented in this outlook. Please enquire with FMS and SRIF for expert advice, clarifications and additional information as and when necessary. The user assumes all risk resulting directly or indirectly from the use of the climate prediction information.