



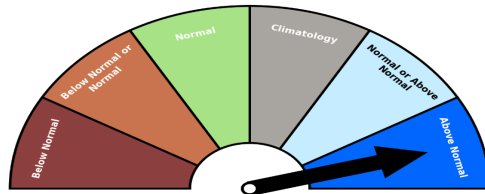
# Fiji Sugarcane Rainfall Outlook For April, May & June and May to July 2023

Volume 1

Issue: 1

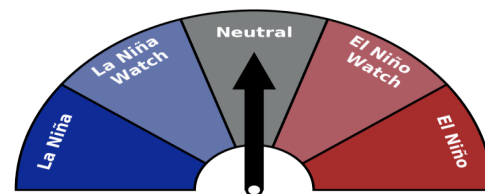
Issued: March 29, 2023  
Next issue: April 28, 2023

## Key Messages



**Above Normal**

Rainfall Outlook



**Neutral**

ENSO Outlook

### English

- Sugarcane growing area have received above normal rainfall (significant amounts) in the past four months (Nov 2022 to Feb 2023).
- The forecast for the coming months is for significant amounts of rainfall over Sigatoka to parts of Ba, farmers are advised to keep drainage clean to avoid waterlogging conditions. Too much water can cause wilting of cane plants due to water stress.
- Weed growth will be vigorous in the fields therefore integrated weed management approach has to be adopted (manual as well as chemical application) to avoid yield loss.
- Consult your Sector Farm Advisors regarding soil sampling, varieties to plant, availability of seedcane and availability of any Government funded cane planting grant.
- Place order for blend A and lime based on the soil results received from SRIF through Sector Farm Advisors.
- Pre-fertilize available seed cane using Blend B fertilizer.
- Arrange for contractor for land preparation.
- Drainage around the plot's earmarked for planting should be cleaned so that it is accessible for machinery soon as weather is favorable for land preparation and planting.
- Farms on rolling and steep slopes should consider soil conservation measures such as planting on contours and establishing vetiver hedge to minimize soil erosion.
- Cane planting season (March to May) is also the right time to plant intercrop. Consult SRIF's technology transfer officers for further advice on intercropping and its benefit.
- For further advice, please contact SRIF on 8921839.

### Hindi

- Ganne vaale kshetron mein pichle chaar maheenon (November 2022 se February 2023) mein saamaany se adhik varsha huee hai.

- Aane vaale maheenon ke liye Sigatoka se lekar Ba ke kuch hisson tak bhaaree baarish hone ki sambhaavana hai, kisaanon ko jalabharaav kee sthiti se bachane ke liye naaliyon ko saaph rakhna chaahie taaki jal jamaav kee sthiti se bacha jaa sake. Bahut adhik paaneee ganne ke paudhon ko murjha sakte hai.
- Ghaas kee vrddhi kheton mein jyaada hogee isliye upaj haani se bachane ke liye kisaanon ko ghaas maarne kee davaee ka upayog karna chaahie.
- Beej bonne ke liye mittee ka pareekshan kiya jaana chaahie, paudhon kee nasal, beej kee upalabdhatta aur ki-see bhee sarakaar dvaara sahaayata ke baare mein apane kshetr ke sector office se jaankari prapt kare.
- Sector Farm Advisors ke maadhyam se SRIF se prapt mittee ke parinaamon ke aadhaar par Blend A aur lime ke liye ordar den.
- Blend B fertilizer ka upayog karke upalabdh ganne ke beej ko poorv-nishechit kare.
- Jameen taiyaar karne ke liye mazadoor kee vyavastha kare.
- Beej bonne ke liye nirdhaarit jameen ke chaaron or naale ko saaph kiya jaana chaahie taaki bhoomi kee taiyaa-ree aur ropan ho sake.
- Jo khet chadhai par hai, waha paudhe lagaana chaahie taki mittee ko bhaene se roka ja sake.
- Ganne bonne ke sath aur kai prakar ke fasle lagaane ka sahee समय March se May tak hai. Kai prakar ke fasle aur iske fayede ke baare mein adhik salaah ke liye SRIF TTO's se sampark kare.
- Aur salaah ke liye 8921839 par SRIF ko sampark kare.

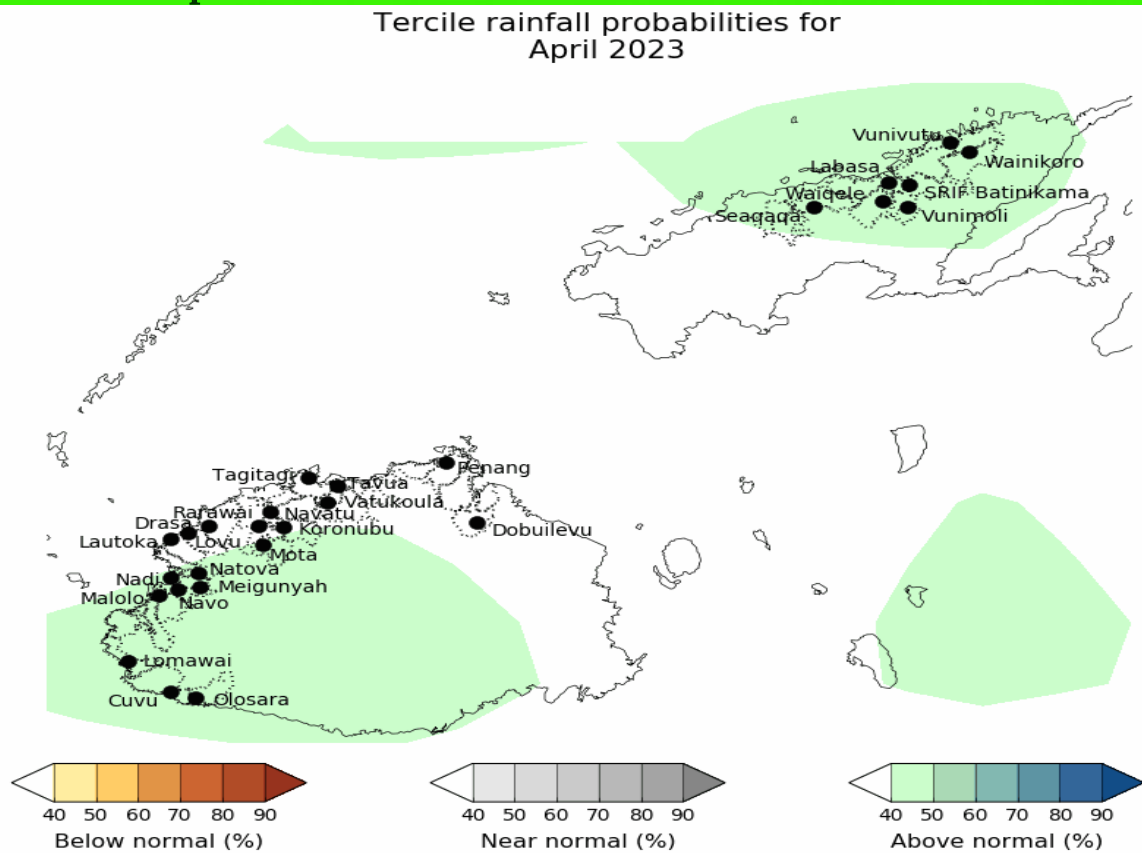
### **I -Taukei**

- E laurai ni levu sara na uca e tau e na noda yalava ni tei dovu e na va na vula e da sa vakanadakuya.
- E na vuku ni draki e da vakasalataki tiko kina e na tolu na vula mai oqo, ko ni sa vakasalataki na dau tei dovu mo ni samaka vinaka tiko na veivakata se veikeli ni wai lalai, me tarova na kena tubu na dovu e na vanua lolo-bo se suasua e na gauna ni tau ni uca.
- E namaki me na totolo na tubu ni co e na vuku ni draki eda sotava tiko. Ko ni sa vakasalataki tale ga na dau teitei mo ni taurivaka na I walewale ni teitei kece ko ni kila, me na rawa tale ga ni vukea na kena rawa e levu na suka e na gauna ni qaqi dovu.
- Mo ni veitaratara kei na nomuni dau ni vakasala, e na vuku ni sabolotaki ni qele, I tei ni dovuka vaka tale ga kina na veika me baleta na veivuke ni matanitu me baleta na tei dovu
- Ko ni sa vakasalataki mo ni sa tekivu otataka tale ga na nomuni I vakabulabula ni qele, yavutaki mai e na nodratou vakasala na kena dau.
- Ni sa vakasalataki tale ga mo ni sa tekivu vakayagataka na I vakabulabula ni qele, na Blend B, e na I tei ni dovu, ka katavilataki tale ga na vanua me vakarau teivaki.
- Sa kerei me samaki vinaka na saula ni teitei, me rawa ni galala na vanua me veitosoyaki kina na misini e na gauna ni vakavakarautaki ni qele.
- Ko ni sa vakasalataki tale ga na dau na tei dovu e na vanua sega ni tautauvata mo ni teivaka tale ga na kau ka rawa ni tarova na sisi ni qele, me vaka na 'vetiver' grass, me vakalailaitaka na sisi ni qele.
- Na vula ko Maji ki na Evereli e vula ni teitei ka ko ni sa vakasalataki tale ga ni rawa ni vakayacori kina na tei dovu veicurumaki. Ke tu nomuni vakatataro, ni qai taro vei iratou na Tabana ni 'Technology Transfer' e na nodratou vale ni volavola na Sugar Research.
- 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

- For April 2023, *above normal* rainfall is likely for sugarcane growing across Vanua Levu, as well as the Sigatoka to parts of Ba. For the remaining sugarcane belts on Viti Levu, there is little guidance with *below normal*, *near normal* and *above normal* rainfall equally likely.
- Rainfall during May 2023 is likely to be *above normal* across the sugarcane growing areas on Viti Levu and Vanua Levu.
- For June 2023, *above normal* rainfall is likely for sugarcane growing areas in Nadi, Lautoka, Ba, Tavua, Rakiraki and Seaqaqa. For Sigatoka, Labasa, Batinikama, Vunimoli, Vunivutu and Wainikoro sugarcane growing areas, there is little guidance with *below normal*, *near normal* and *above normal* rainfall equally likely.
- During May to July 2023 season as a whole, *above normal* rainfall is likely across the sugarcane growing areas on Viti Levu and Vanua Levu.
- The La Niña conditions in the Pacific Ocean has returned to ENSO-neutral state (neither El Niño nor La Niña), but the atmosphere may continue to display La Niña like pattern due to the lag in atmosphere to oceanic changes.
- Since Fiji is still in the tropical cyclone season, all communities should remain alert, updated with latest weather forecasts and take appropriate precautionary measures when advisories are issued.

## Rainfall Outlook: April 2023

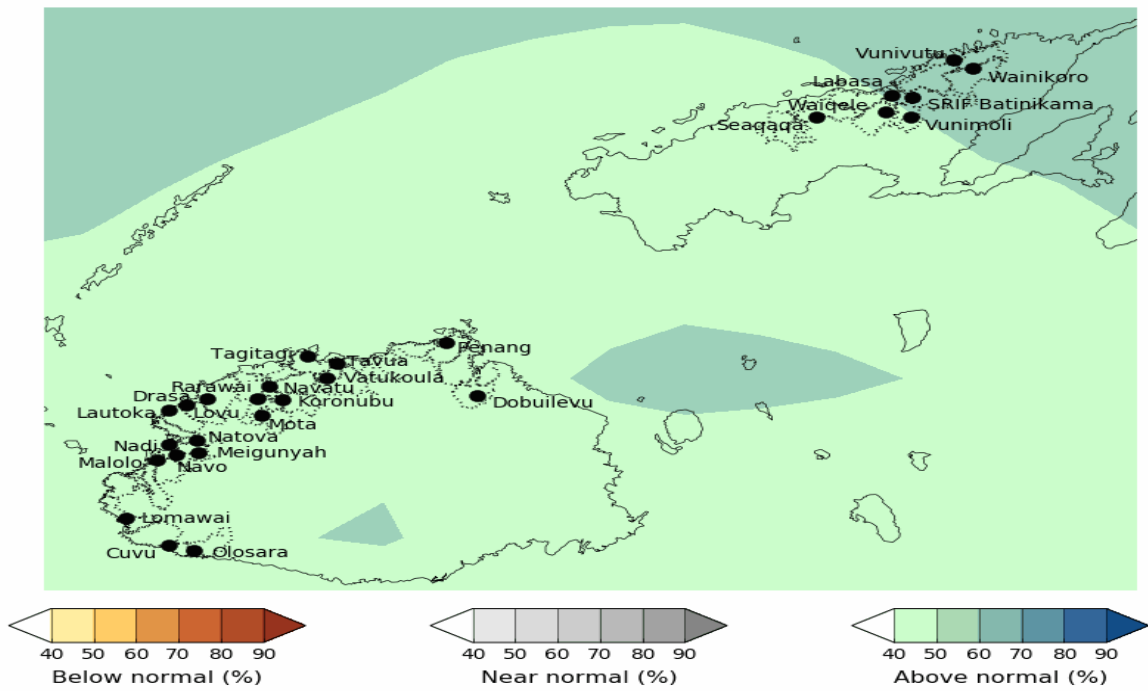


Data source: ACCESS-S2      Base period: 1981-2018      Run: 13/03/2023  
 Issued: 15/03/2023  
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 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinerregions.org/>.

Figure 1: Above normal rainfall is likely for Sigatoka to parts of Ba sugarcane growing areas and across the sugarcane belts on Vanua Levu. For remaining sugarcane growing areas on Viti Levu, there is little guidance with below normal, near normal and above normal rainfall equally likely.

## Rainfall Outlook: May 2023

Tercile rainfall probabilities for May 2023

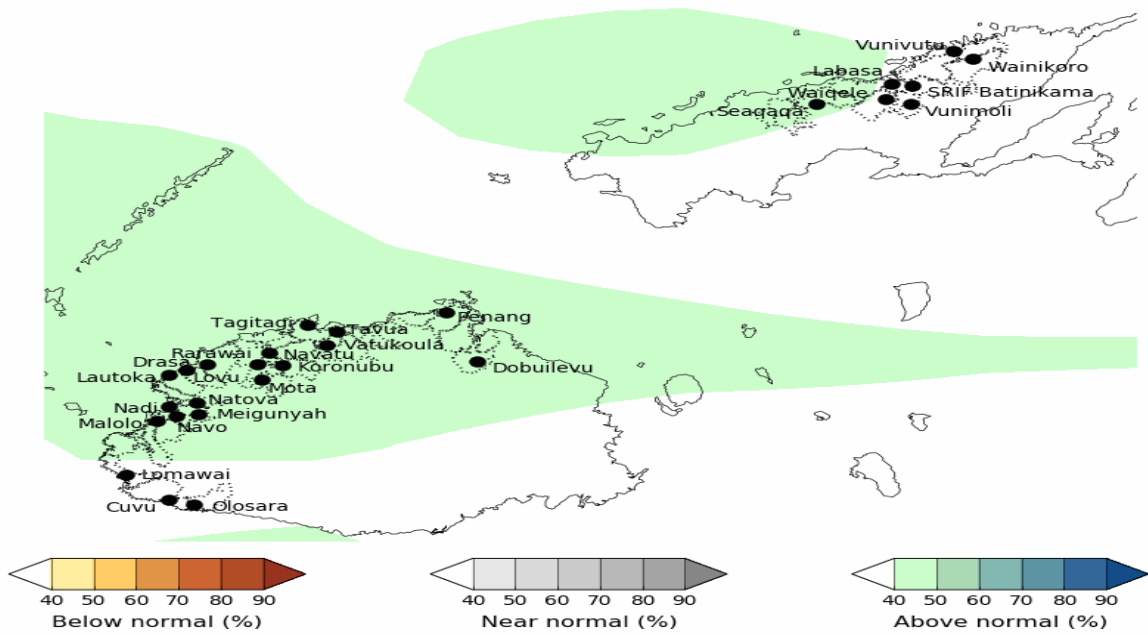


Data source: ACCESS-S2 Issued: 15/03/2023 © Commonwealth of Australia 2023, Australian Bureau of Meteorology, supported by COSPPac  
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Figure 2: Above normal rainfall is likely across the sugarcane growing areas on Viti Levu and Vanua Levu.

## Rainfall Outlook: June 2023

Tercile rainfall probabilities for June 2023



Data source: ACCESS-S2 Issued: 15/03/2023 © Commonwealth of Australia 2023, Australian Bureau of Meteorology, supported by COSPPac  
 Base period: 1981-2018 Run: 13/03/2023  
 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.marinerregions.org/>.

Figure 3: Above normal rainfall is likely for sugarcane growing areas in Nadi, Lautoka, Ba, Tavua, Rakiraki and Seagaqa. For Sigatoka, Labasa, Batinikama, Vunimoli, Vunivutu and Wainikoro sugarcane growing areas, there is little guidance with below normal, near normal and above normal rainfall equally likely.

## Rainfall Outlook: May to July 2023

Tercile rainfall probabilities for May to July 2023

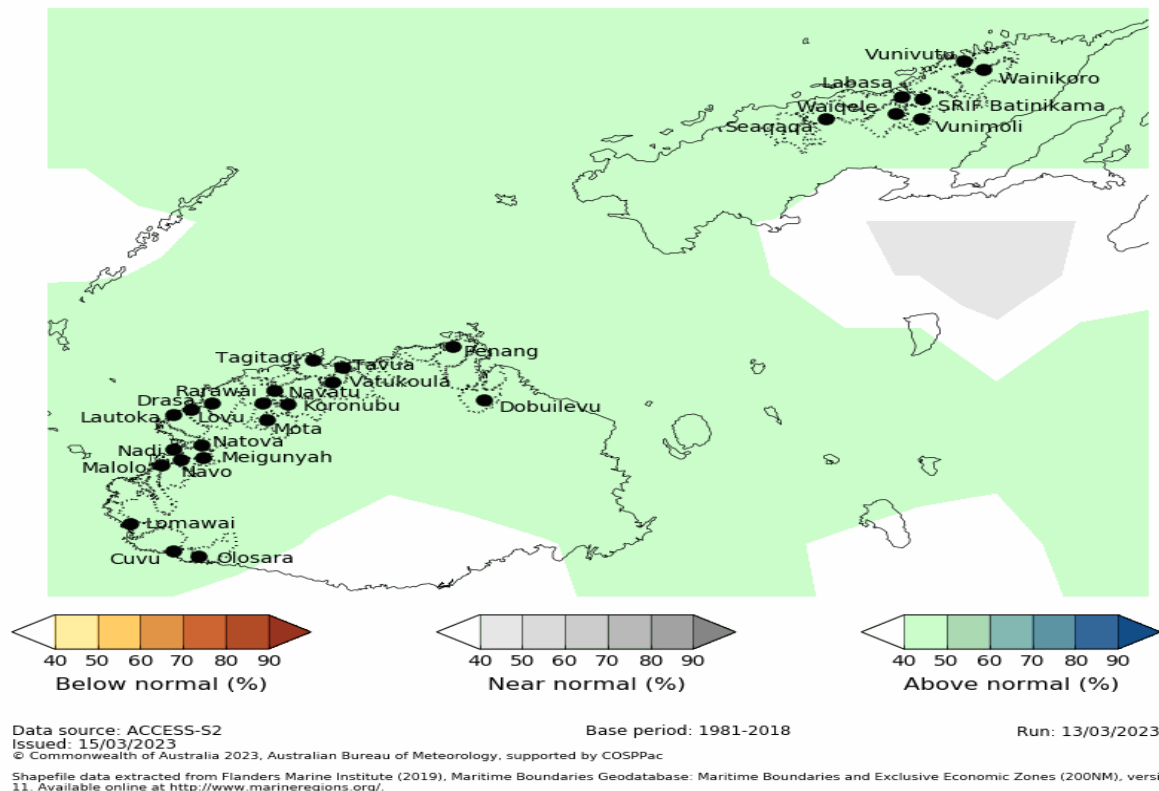


Figure 4: Above normal rainfall is likely across the sugarcane growing areas on Viti Levu and Vanua Levu.

## Explanatory Notes

### Fiji Sugarcane Rainfall 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 on a monthly basis.

### 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 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 (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.

## Explanatory Notes

**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.

### Climate (Rainfall) Outlook

The rainfall outlook is in probabilistic format.

Probability of more than 60% in the upper tercile (area on the map with green shading) means that rainfall is **very likely** to be **above normal** (that is, there is more than 60% chance of receiving above normal rainfall). Probability of less than 60% in the upper tercile means that rainfall is **likely** to be above normal (that is, there is 40-60% chance of receiving above normal rainfall).

Probability of more than 60% in the lower tercile (area on the map with brown shading) means that rainfall is **very likely** to be **below normal** (that is, there is more than 60% chance of receiving below normal rainfall). Probability of less than 60% in the lower tercile means that rainfall is **likely** to be below normal (that is, there is 40-60% chance of receiving below normal rainfall).

Probability of more than 60% in the middle tercile (area on the map with grey shading) means that rainfall is **very likely** to be **near normal** (that is, there is more than 60% chance of receiving near normal rainfall). Probability of less than 60% in the middle tercile means that rainfall is **likely** to be near normal (that is, there is 40-60% chance of receiving near normal rainfall).

**Climatology** - all tercile percentages are less than 40% (area on the map with white shading), indicates that the outlook period offers little guidance as the chances of below normal, normal and above normal rainfall are similar.

**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.