

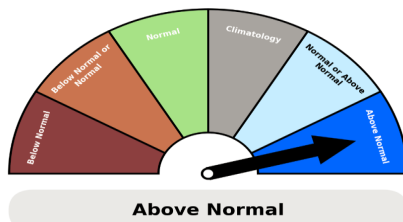
# Fiji Sugarcane Climate Outlook from November 2022 Late Harvesting & Maintenance Season

Volume 18

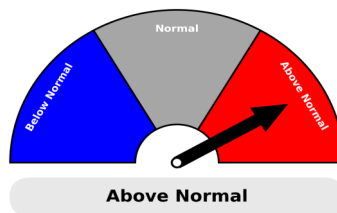
Issue: 4

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Next issue: January 31, 2023

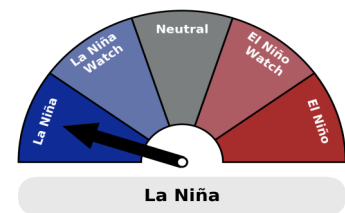
## Key Messages



Rainfall Outlook



Air Temperature Outlook



ENSO Outlook

### English

- Majority of the sugarcane growing areas have experienced dry conditions during the past 3 months, with the last few days in September and early October recording rainfall at few stations.
- Above normal rainfall has been predicted by the Fiji Met office, for the coming 3 months, November 2022 to January 2023, in the cane belt areas. With the prediction of high amounts of rainfall, flash flooding warning has also been issued.
- The crushing season will finish by November at all the 3 mills.
- Fertilizers must be ordered and side dressing as well as split application practiced on all plant and ratoon crops before the end of the year so that it can be taken up by the plants progressively.
- Due to the recent rain and the prediction of above normal air temperatures, weather has and will encourage weed growth which growers can monitor and control using an integrated weed management approach, i.e. manual weeding followed by weedicide application (using recommended herbicides). The best time to apply herbicide is when the weeds are 2-3 leaf stage. Farmers are urged to go for "zero tolerance to weeds". It has to be noted that weed infestation affects germination of the sugarcane crop and its development, thus affecting yield severely.
- Farmers should take advantage of the recent rains and complete all short and long fallow planting before the deadline date, 31<sup>st</sup> October, 2022. Farmers are advised to source certified seed material only and to contact their sector farm advisors (FA) for available certified seedcane in their sectors.
- The field and main drains in and around the farms should be kept clean to allow easy drainage of excess water from the fields in order 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.
- Growers are advised to adhere to the weather forecast in making plans for farm activities like planting, fertilization and weed control since forecast for 2-3 tropical cyclones has been highlighted.
- For further information, please contact SRIF on 8921839.

**Hindi**

- Ganna ugaane vaale adhikaansh kshetron mein pichhale 3 maheenon ke dauraan sookhe ka anubhav hua hai, September mein antim kuchh dinon aur October ke shuruaat mein kuchh steshanon par varsha huee hai.
- Fiji mausam kaaryaalay dvaara aane vaale 3 maheenon, November 2022 se January 2023 tak ganna kshetron mein saamaany se adhik varsha ke sambhaavana hai. Adhik maatra mein baarish ke saath, achaanak baadh chadane ke chetaavane bhee dee gae hai.
- Sabhee 3 milon par November tak ganne ke peracee samaapt ho jaega.
- Fertilizer order ho jaana chaahie aur varsh ke ant se pahale sabhee paudhon aur ratoon phasalon par split application ka abhyaas kiya jaana chaahie taaki ise paudhon dvaara liya ja sake.
- Haal ke baarish aur saamaany hava ke taapamaan se oopar ke sambhaavana ke kaaran, ghaas ke vikaas ko protsaahit kiya hai aur ghaas maarane ke davaee ka upayog karake, kisaanon ke nigaraanee me niyantran paaya ja sakata hai. Ghaas maarane ke davaee lagaane ka sabase achchha samay tab hota hai jab paudhe 2-3 pattee avastha mein hote hain. Kisaanon se "ghaas ke prati jeero tolarens" ka aagrah kiya jaata hai. Yah dhyaan diya jaana chaahie ki ghaas ka hona ganne ke phasal ke vikaas ko prabhaavit karata hai, aur is prakaar upaj ko gambheer roop se prabhaavit karata hai.
- Kisaanon ko haal ke baarish ka laabh uthaana chaahie aur 31 October, 2022 ke samay seema se pahale sabhee chhotee aur lambee paratee ropan ko poora karana chaahie. Kisaanon ko salaah dee jaatee hai ki ve keval pramaanit beej ka upayog kare aur upalabdh pramaanit beej ke liye apane kshetr ke farm salaahakaar se sampark karen.
- Kheton mein aur aasapaas ke mukhy naalon ko saaph rakha jaana chaahiye taaki jal jamaav ke sthiti se bachane ke liye kheton se atirikt paanee ke nikaasee aasaan ho sake. Jal jamaav vaale vaataavaran mein ugane vaale ganne ko tilar utpaadan mein kamee ke saath tanaav se gujarana hoga, jis se upaj mein kamee aayegee.
- Kisaanon ko salaah dee jaatee hai ki ve ropan aur ghaas niyantran jaisee yojana banaane mein mausam ke poorvaanumaan ka paalan karen kyonki 2-3 toophaan ke poorvaanumaan par prakaash daala gaya hai.
- Aur salaah ke liye 8921839 par SRIF ko sampark kare.

**I -Taukei**

- E a vakilai sara na draki mamaca e na tolu na vula sa oti, ia, e a bau tau vakalailai na uca e na i otioi ni vica na siga ni vula ko Seviteba ka vaka tale ga kina e na i tekitekivu ni vula ko Okotova.
- Na i vakasala mai na Tabana Ni Draki, ni namaki me na levu cake sara na uca me na tau, e na noda yalava ni tei dovu, mai na vula ko Noveba 2022 ki na Janueri 2023, ka na rawa tale ga ni laki vakavuna na waluvu ena so na veivanua.
- E sa na sogo tiko na tolu na i qaqi ni dovu, e na vula ko Noveba.
- Ko ni sa vakasalataki mo ni sa tekivu otataka ka vakayagataka tale ga yani na i vakabulabula ni qele, ni bera ni da qai yacova yani na mua ni yabaki oqo.
- E na rawa ni totolo sara na tubu ni co ca e na vuku ni uca eda se qai vakanadakuya, ia, e na rawa ni na yadravi na totolo ni tubu ni co, ni vakayagataki e so na kena i walewale ni teitei me vaka na kena wereci na i teitei ka lako vata kei na vakayagataki ni wainimate ni co ca. E daumaka me sa tekivu vakayagataki na wainimate ni co ca e na gauna sa 2 se 3 kina na drauna. Ko ni sa vakasalataki tale ga na dauteitei mo ni kakua ni vakatara me tubu na co ca, me vaka ni na rawa ni laki vakaleqa na tubu ni dovu, ka laki yacova sara me lailai na suka e rawa e na dovu.
- Veikemuni na dauteitei, e na daumaka mo ni vakayagataka sara vakavinaka na draki ucauca e da sa donumaka tiko yani oqo e na teitei, ni bera ni da yacova yani na mua ni vula ko Okotova. Ko ni sa vakasalataki tale ga mo ni veitaratara kei ira na daunivakasala ka ra tiko e na vei valenivolavola se 'sector offices' voleka vei kemuni me baleta na veimataqali i tei ni dovu ka tiko vei iratou.
- Ko ni sa vakasalataki me vakasavasavataki na saula ni veiteitei, ka vakabibi na veikeli ni wai lalai, me tarova na kena luvu e so na i teitei. E laurai ni sega ni dau tuvaki vinaka sara na dovu ka tubu e na vanua luvu, ka rawa tale ga ni laki vakavuna me lailai na suka e rawa e na dovu.
- Ko ni sa vakasalataki na dau tei dovu, mo ni vakamuria na i tukutuku ni draki, e na gauna ni tuvana kina na nomuni lalawaka me baleta na teitei, vakayagataki ni vakabulabula ni qele, ka vaka tale ga kina na vakayagataki ni wai ni mate ni co ca, me vaka ni sa kacivaki ni na rawa ni na tarai keda e 2-3 na cagilaba e na gauna ni cagilaba e da sa lakova yani oqo.
- Ke so tale na nomuni vakatataro, ni qai qiriti iratou na tabana ni Sugar Research Institute of Fiji (SRIF) ena naba ni talevoni 8921839

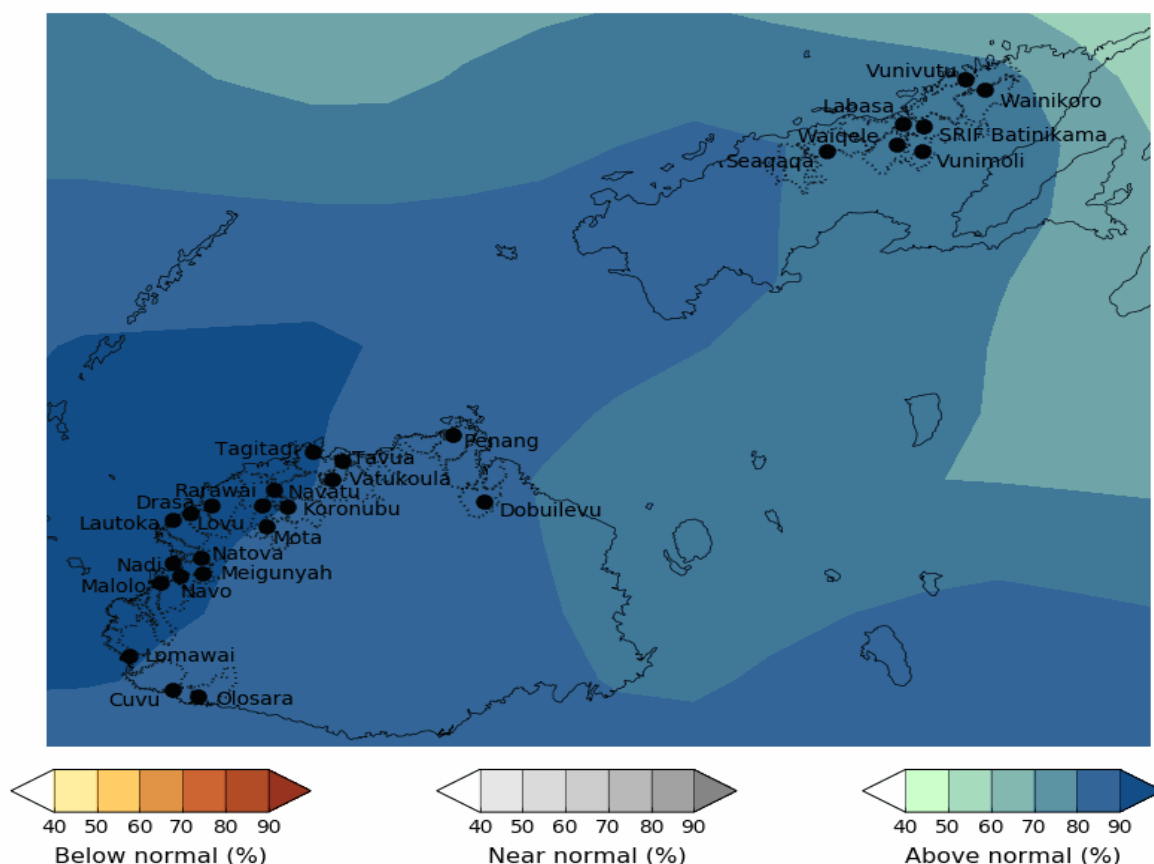
## Climate Outlook

- Rainfall is highly likely to be *above normal* in the sugarcane belt areas during November 2022 to January 2023 (Figure 1), with chances of *above normal* rainfall also favored for the January to March 2023 period (Figure 2).
- With the outlook of above normal rainfall, there is an increasing risk of flood through the coming wet season from November 2022 to April 2023.
- Air temperatures are likely to be *above normal* across the sugarcane belt areas during both the November 2022 to January 2023 and January to March 2023 period (Figure 3 & 4).
- The tropical cyclone season begins in November and continues until 30<sup>th</sup> April. Fiji is likely to be affected by two to three (2-3) tropical cyclones during the coming season, with one to two (1-2) cyclones likely to reach severe category (Category 3– 5).
- There is an elevated risk of tropical cyclones to affect the Western and Northern Division this season.
- A La Niña event is under way in the tropical Pacific. The global climate models favour continuation

## Rainfall Outlook: November 2022 to January 2023

Figure 1

Tercile rainfall probabilities for  
November 2022 to January 2023



Data source: ACCESS-S2  
Issued: 19/10/2022

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Base period: 1981-2018

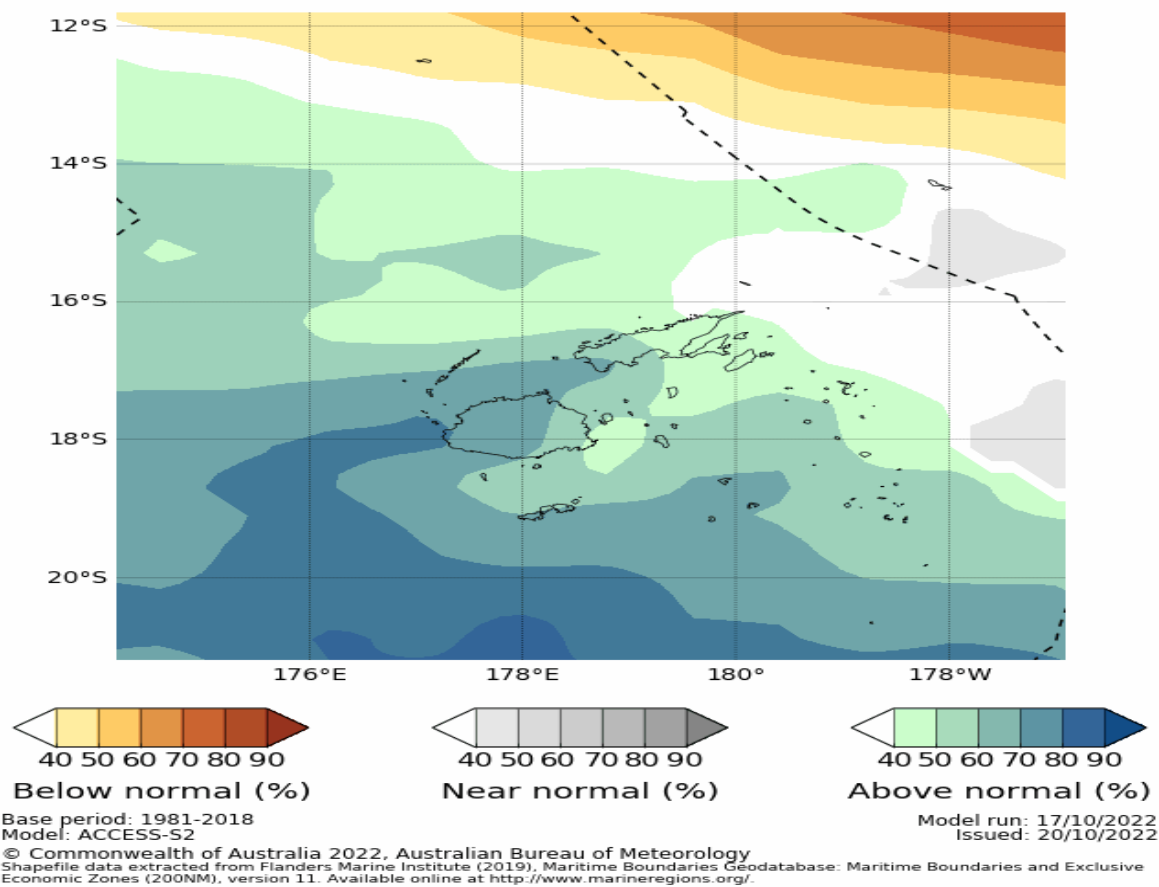
Run: 17/10/2022

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/>.

## Rainfall Outlook: January to March 2023

Figure 2

### Tercile rainfall probabilities for January to March 2023



## Air Temperature Outlook: November 2022 to January 2023

Figure 3a.

### Tercile maximum temperature probabilities for November 2022 to January 2023

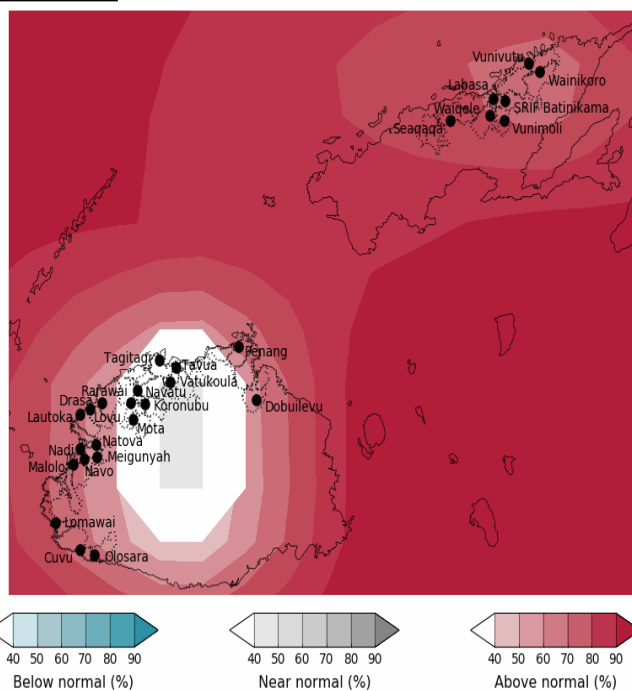
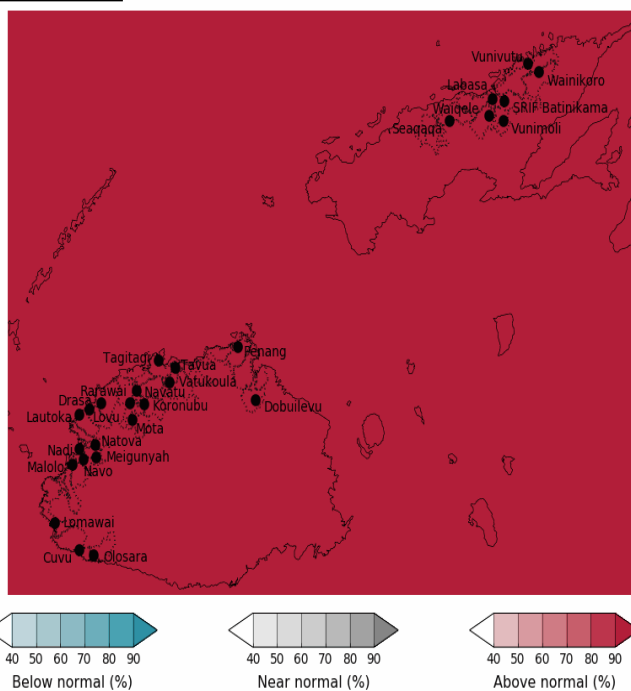


Figure 3b.

### Tercile minimum temperature probabilities for November 2022 to January 2023



## Air Temperature Outlook: January to March 2023

Figure 4a.

Tercile maximum temperature probabilities for January to March 2023

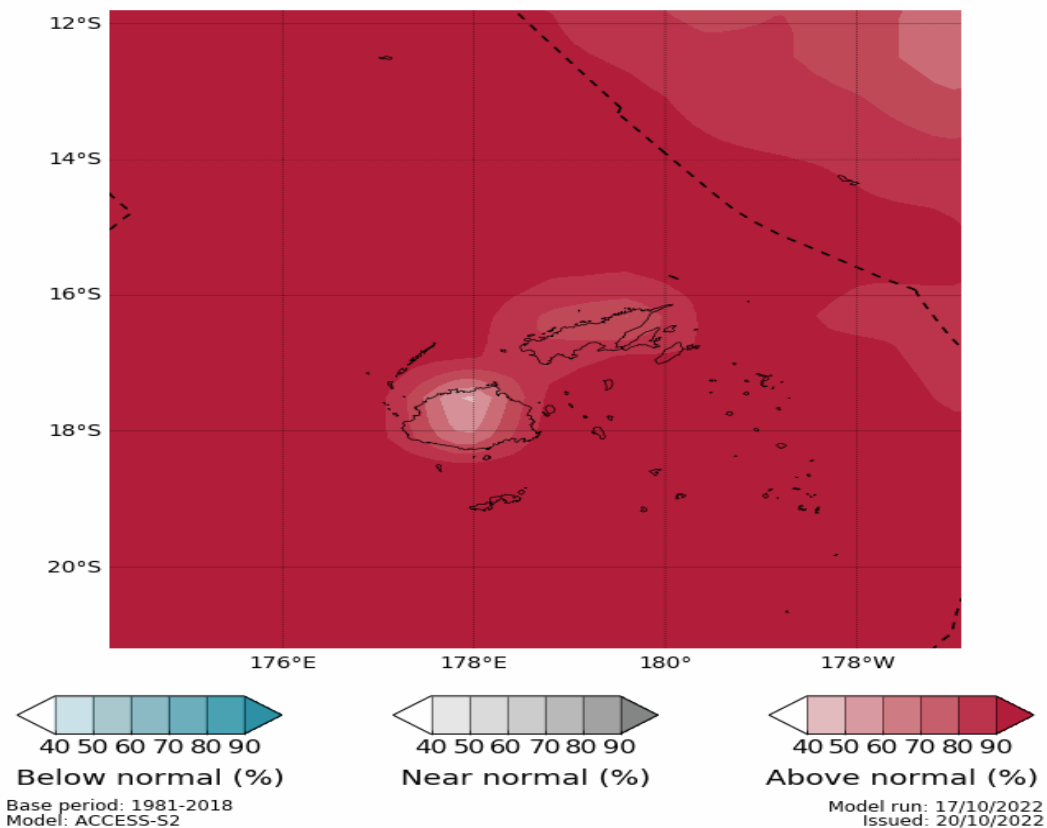
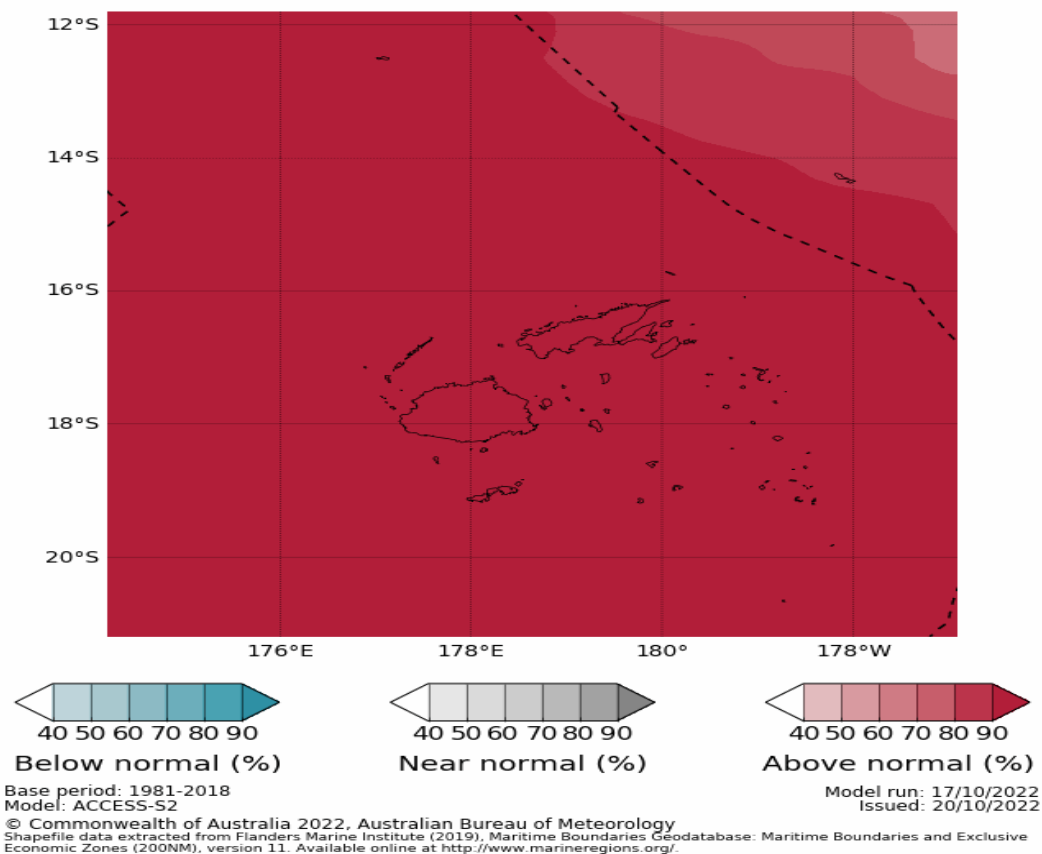


Figure 4b.

Tercile minimum temperature probabilities for January to March 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.