

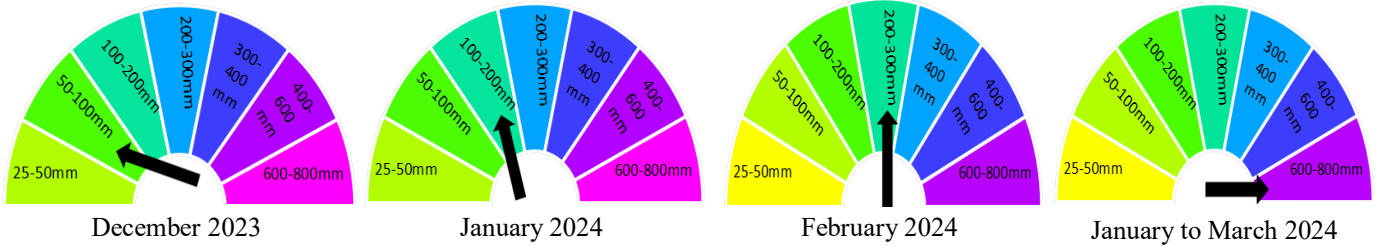
# Fiji Sugarcane Rainfall Outlook For December 2023, January & February 2024 and January to March 2024 **Experimental**

Volume 1

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Next issue: December 29, 2023

## Key Messages



## English

- The Fiji Meteorological Services has forecasted below normal (less than 100mm) amounts of rainfall in December.
- Below average rainfall forecast will likely cause the buildup of Cane Weevil Borer (CWB) population in the trash conserved field and cause a disease called “dead heart”. After harvesting the crop, it is advisable to place borer traps to capture the insects. SRIF can be contacted.
- Farmers should spray pre-emergent weedicides – Diuron and Valpar King soon after planting or in ratoons at recommended rates to avoid influx of weeds which will lead to more costs in terms of labour, mechanical and weedicide control.
- Farmers should keep listening to forecasts and avoid mechanical inter row cultivation (ripper, tiller etc.) during prolonged dry period to avoid moisture loss and only to conduct once rain is forecasted or after it is received.
- If there is no irrigation facilities, then all planting activities should be put to hold as germination will be affected.
- Farmers should also plan drainage – desilting or digging new drains during dry season and while the crop is still small.
- Farmers planning to plant next year should take green manuring initiatives and plant legumes (e.g. Urd, Moong, cowpea, beans etc.) in the fallow land. Planting activities should be planned well.
- SRIF Technology transfer officers and FSC farm advisors can be contacted for more information on 8921839.

## Hindi

- Fiji mausami daftar ne ganne ke kshetron ke liye December mein saamaanye se kam (100mm se kam) baarish ka anumaan lagaaya hai.
- Kam varsha ke poorvaanumaan se kachara sanrakshit kshetr mein Cane Weevil Borer (CWB) keeabaadee badhane aur "dead heart" naamak beemaaree hone kee sambhaavana hai. Ganne kee kataee ke baad, keedon ko pakadane ke liye jaal lagaane kee salaah dee jaatee hai. Iske vishe mein SRIF se sampark kiya

ja sakata hai.

- Kisaanon ko ghash kee badhanti se bachane ke liye beej bonne ke turant baad ya ratoon mein anushansit dayeron par poorv-ubharane vaale ghash - Diuron aur Valpar King ka chidkaav karna chaahiye, jis se ghaas niyantran ke maamale mein adhik madat pahuche gi.
- Kisaanon ko mausam poorvaanumaanon ko sunte rahana chaahiye aur namee kee haani se bachne ke liye lambe samay tak jhure mausam avadhi ke dauraan ganne jotai se bachna chaahiye aur kevalbaarish ka poorvaanumaan hone par ya uske praapt hone ke baad hee khetee karanee chaahiye.
- Yadi sichaee kee koi suvidha nahin hai, to sabhee ganne bonne ki yojna ko rok diya jaana chaahiye kyonki isse ganne ki badhanti prabhaavit hogi.
- Jhure mausam ke dauraan aur jab phasal chhotee ho tab kisaanon ko jal nikaasee kee yojana ba-naanee chaahiye aur naaliyaan khodni chaahiye.
- Agle varsh ropan kee yojana bana rahe kisaanon ko khaad kee pahal karnee chaahiye aur partee jameen mein phal (jaise urd, moong, boda, beans, adi) lagaanee chaahiye. Ganne bonne kee yojana ache se banaee chaahiye.
- Adhik jaanakaaree ke liye SRIF Technology transfer officers aur FSC farm advisors se 8921839 par sampark kiya ja sakata hai.

## I-Taukei

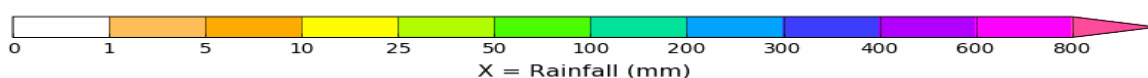
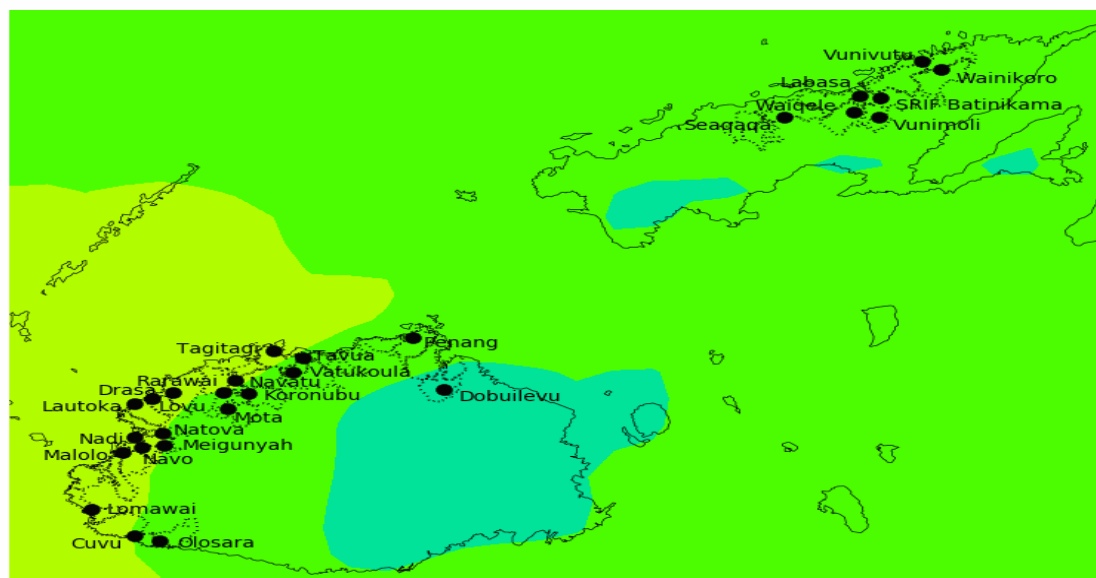
- E ratou sa veivakasalataki tiko na Tabana Ni Draki, ni na rawa ni namaki me lailai (lailai mai na 100mm)na uca e na tau e na vula ko Tiseba.
- E na rawa ni laki vakavuna na tubu ni manumanu ni dovu, na 'weevil borer' e na benu ni dovu, na lailai ni uca ka sa da vakasalataki tiko yani kina na lewe ni vanua, me vaka ni na rawa ni laki basika kina na mataqali mate ka yacana na 'dead heart'.
- Ko ni sa vakasalataki na dau teitei mo ni vakayagataka na mataqali wai ni mate ni co ca me vaka na 'Diuron kei na 'Valpar King' e na gauna sa tei oti kina na dovu, e na kena I vakarau dodonu, me rawa ni tarova na tubu vakaiyauayu na co ca, me kakua ni laki vakalevu cakacaka e na kena samaki na I teitei.
- Ko ni sa vakasalataki na dau tei dovu mo ni vakarogoca na I tukutuku ni draki ka levea na vakayagataka na misini e na maliwa ni tei, me tarova na mamaca totolo ni qele e na gauna ni draki mamaca eda lako curuma yani oqo, ka rawa ni qai vakayagataka na misini oqo e na gauna sa tau oti kina na uca.
- Ke sega na nomuni I yaya ni 'irrigation' ko ni sa vakasalataki me na tu vakawawa na teitei me vaka ni na rawa ni tara na tubu se bula vinaka ni I tei.
- Ni sa vakasalataki mo ni kelia na nomuni vakata lalai e na gauna ni draki mamaca ka vaka tale ga kina ni se lalai na I tei.
- Ko ni sa vakasalataki mo ni tuvanaka vakamatau na nomuni gauna ni teitei. Ki vei kemuni na nanuma mo ni teitei e na yabaki vou, ko ni sa vakasalataki mo ni vakayagataka na I vakabulabula ni qele ka vakatokai na 'green manuring initiatives', ka tei tale ga na 'legume plants' me vaka na 'urd, moong, cow-pea, bean', kei na so tale.
- Ke tu e so na nomuni vakatataro, ko ni rawa ni veitaratara vei iratou na tabana ni 'SRIF Technology Transfer', kei iratou na dau ni vakasala mai na FSC, e na 8921839.

## Climate Outlook

- For December 2023, there is a high (75%) chance of receiving at least **25-50mm** of rainfall from Lomawai to Tagitagi, **50-100mm** for Sigatoka, Mota, Koronubu, Navatu, Vatukoula, Tavua, Penang and across sugarcane belt areas in Vanua Levu, while there is a high chance of receiving at least **100-200mm** of rainfall across Doboilevu.
- During January 2024, there is a high (75%) chance of receiving at least **100-200mm** of rainfall from Sigatoka to Penang and across most sugarcane belt areas in Vanua Levu, and there is a high chance of receiving at least **200-300mm** of rainfall in Doboilevu and Vunimoli.
- For February 2024, there is a high (75%) chance of receiving at least **100-200mm** of rainfall across Sigatoka, Malolo and Tavua sugarcane belt areas, **200-300mm** from Nadi to Ba, Rakiraki and across sugarcane belt areas in Vanua Levu.
- During January to March 2024 period, there is a high (75%) chance of receiving at least **400-600mm** of rainfall from Cuvu to Tavua, **600-800mm** for Olosara, Mota, Koronubu, Tavua, Rakiraki and across all the sugarcane belt areas in Vanua Levu.
- El Niño Southern Oscillation (ENSO) is currently in a moderate El Niño state.
- The current El Niño event is likely to reach its peak period during December 2023 to February 2024 period.
- Fiji is currently in its tropical cyclone season and with the increase in number of weather activities during El Niño, although forecast is for suppressed rainfall, any developments closer to our region, is likely to result in enhanced rainfall.

## Rainfall Outlook: December 2023

75% chance of rainfall exceeding X mm:  
December 2023



Data source: ACCESS-S2 Base period: 1981–2018 Run: 25/11/2023  
 Issued: 27/11/2023 Observations: MSWEP  
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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: High (75%) chance of receiving at least 25-50mm of rainfall from Lomawai to Tagitagi, 50-100mm for Sigatoka, Mota, Koronubu, Navatu, Vatukoula, Tavua, Penang and across sugarcane belt areas in Vanua Levu, while there is a high chance of receiving at least 100-200mm of rainfall across Doboilevu. The confidence in the outlook is moderate to good.

## Rainfall Outlook: January 2024

75% chance of rainfall exceeding X mm:  
January 2024

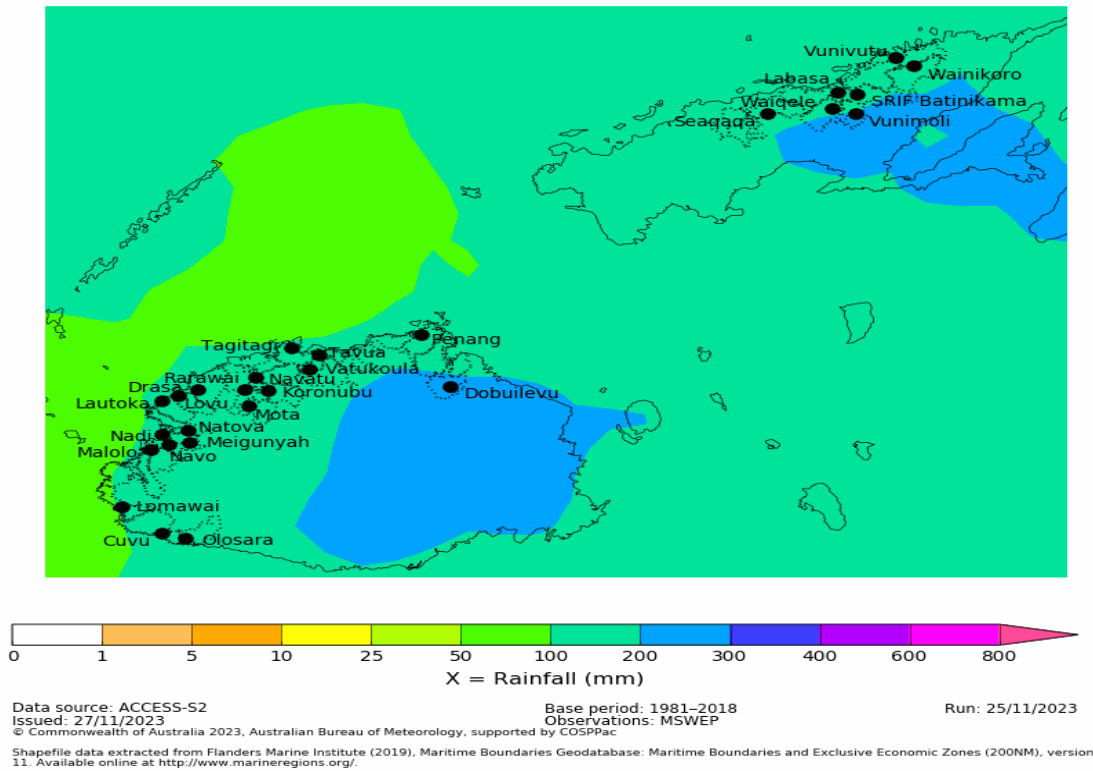


Figure 2: High (75%) chance of receiving at least 100-200mm of rainfall from Sigatoka to Penang and across most sugarcane belt areas in Vanua Levu, and there is a high chance of receiving at least 200-300mm of rainfall in Doboilevu and Vunimoli. The confidence in the outlook is moderate to good.

## Rainfall Outlook: February 2024

75% chance of rainfall exceeding X mm:  
February 2024

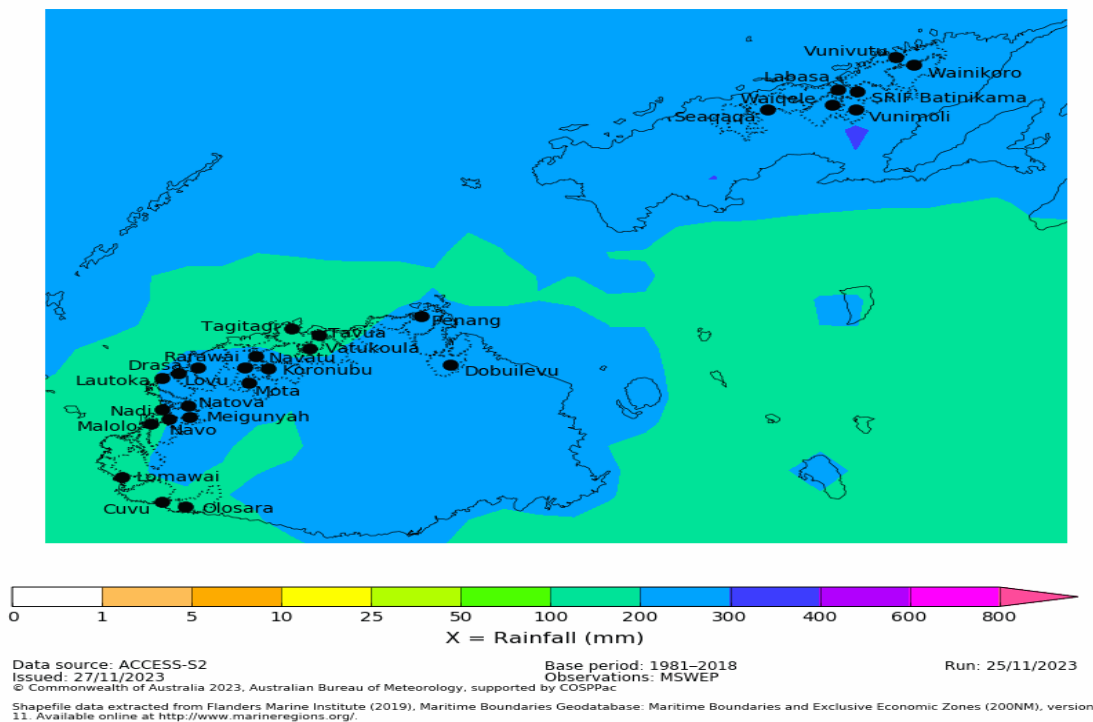


Figure 3: High (75%) chance of receiving at least 100-200mm of rainfall across Sigatoka, Malolo and Tavua sugarcane belt areas, 200-300mm from Nadi to Ba, Rakiraki and across sugarcane belt areas in Vanua Levu. The confidence in the outlook is moderate to good.

## Rainfall Outlook: January to March 2024

75% chance of rainfall exceeding X mm:  
January to March 2024

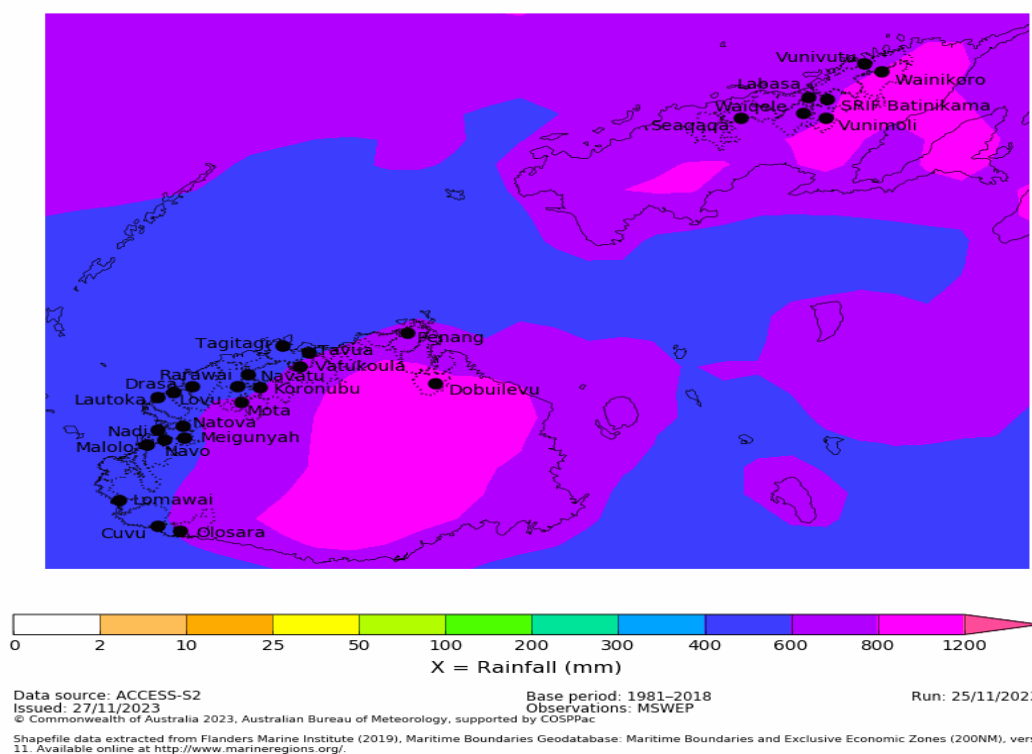


Figure 4: High (75%) chance of receiving at least 400-600mm of rainfall from Cuvu to Tavua, 600-800mm for Olosara, Mota, Koronubu, Tavua, Rakiraki and across all the sugarcane belt areas in Vanua Levu. The confidence in the outlook is high to very high.

## 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 the impacts of some aspect of climate due to influence of other factors that is acting slowly.

**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.*