



# Fiji Sugarcane Rainfall Outlook For May, June & July 2024 and June to August 2024 **Experimental**

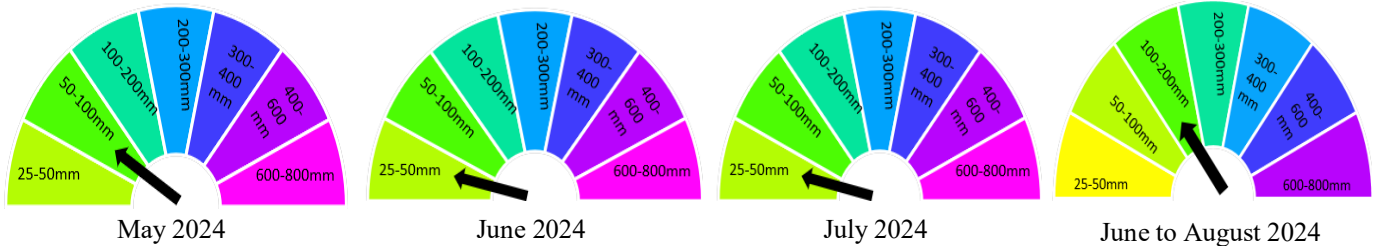
Volume 2

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## Key Messages



## English

- For farmers who planted in late March and during April;
  1. Weed Control
    - ◇ Conduct regular weed control activities, such as manual or chemical weeding, during May, June, and July to ensure the sugarcane crop is not outcompeted for nutrients, water, and sunlight.
    - ◇ Pay special attention to areas with higher rainfall predictions (e.g., Dobuilevu, Vanua Levu) as weed growth may be more rapid.
  2. Nutrient Management
    - ◇ Consider split applications of Blend B, with the first application in May and the second in July, to ensure adequate nutrient availability throughout the growing season.
  3. Water Management
    - ◇ In areas with lower rainfall predictions (e.g., Cuvu to Tavua), consider implementing irrigation strategies where possible to supplement the crop's water needs.
    - ◇ In areas with higher rainfall predictions (e.g., Dobuilevu, Vanua Levu), ensure proper drainage systems are in place to prevent waterlogging and root rot.
  4. Pest and Disease Management
    - ◇ Planting varieties that are less susceptible to pokka boeng and leaf scald, especially in low-lying areas is advised. Naidiri and Kaba are highly susceptible to these diseases.
    - ◇ Under high moisture -stress (poor drainage during rainfall/drought) pineapple rot can affect germination.

*Pretreat the setts with fungicide in fields with a prior history of the disease.*

    - ◇ Post-monsoon, armyworm attack can be anticipated. Keep the field borders free of weeds.
    - ◇ Provision of adequate drainage facilities during heavy rains for the standing crop is a prerequisite, as water stagnation predisposes the cane to diseases and attack of sucking pests.
- For farmers in the planting preparation or planting phase;
  1. Land Preparation
    - ◇ Ensure proper land preparation by plowing, harrowing, and leveling the field to create a suitable seedbed for planting.
    - ◇ Incorporate organic matter or compost into the soil to improve soil structure and fertility.
  2. Planting
    - ◇ Plant sugarcane sets at the recommended depth.
    - ◇ Ensure proper soil moisture conditions during planting to promote germination and early growth.
    - ◇ Consider staggered planting dates to spread out the workload and manage water and labor resources more effectively.

### 3. Irrigation

- ◇ In areas with lower rainfall predictions, consider implementing irrigation strategies where possible, such as furrow or drip irrigation, immediately after planting to ensure adequate soil moisture for germination and early growth.

### 4. Weed Control

- ◇ Implement pre-emergence or early post-emergence weed control measures to prevent weed competition during the critical establishment phase.
- ◇ Growers are advised to monitor weather updates closely and be prepared to adjust farm activities like planting, fertilizer application and weed control based on actual rainfall patterns.
- ◇ Remember, these tips are general guidelines, and it's essential to consult with local FSC sector offices or SRIF offices for more specific recommendations tailored to your region and farming practices.
- ◇ For further advice, please contact SRIF on 8921839.

## Hindi

- Un kisaanon ke liye jinhone March ke ant aur April ke dauraan buaee kee;
  1. Ghass Niyantaran
    - ◇ Ganne kee phasal poshak tatvon, paanee aur sooraj kee roshanee ke maamale mein pichhad na jae, iss liye May, June aur July ke dauraan niyमित roop se ghass niyantaran ki gatividhiyaan, jaise ki haath se ya ganne ki davaii ka istemaal karen.
    - ◇ Adhik varsha kee bhavishyavaanee vaale kshetron (jaise ki, Dobuilevu, Vanua Levu) par vishesh dhyaan den kyonki ghass kee vrddhi adhik tejee se ho sakatee hai.
  2. Pushtikar Sanchaalan
    - ◇ Badhate mausam ke dauraan paryaapt poshak tatvon kee upalabdhatta sunishchit karane ke liye, Blend B ko do bhaag mein batne ka vichaar karen, pahala istemaal May mein aur doosara July mein.
  3. Jal Sanchaalan
    - ◇ Kam varsha kee bhavishyavaanee vaale kshetron mein (jaise ki, Cuvu se lekar Tavua), jahaan sambhav ho, phasal kee paanee kee jaroorton ko poora karane ke liye sinchae karane par vichaar karen.
    - ◇ Adhik varsha kee bhavishyavaanee vaale kshetron mein (jaise ki, Dobuilevu, Vanua Levu), sunishchit karen ki jalabharaav aur jad sadane ko rokane ke liye uchit jal nikaasee ki vyavastha maujood hain.
  4. Keet aur Rog Sanchaalan
    - ◇ Vishesh roop se nichale ilaakon mein pokka boeng aur pattee jalane ke prati kam sanvedanasheel kismen ko lagaane kee salaah dee jaatee hai. Naidiri aur Kaba in beemaariyon ke prati atyadhik sanvedanasheel hain.
    - ◇ Uchch namee-tanaav (varsha/sookhe ke dauraan kharaab jal nikaasee) ke tahat anaraas ka sadana, ganne ke vikaas ko prabhaavit kar sakata hai.

*Rog ke poorv itihaas vaale kheton mein, fungicide se poorv upachaar karen.*

    - ◇ Baarish ke mausam ke baad armyworm ke hamale kee aashanka jataee ja sakatee hai. Khet kee seemaon ko ghass se mukt rakhen.
    - ◇ Phasal ke liye bhaaree baarish ke dauraan paryaapt jal nikaasee suvidhaon ka praavadhaan ek poorvaapeksha hai, kyonki paanee ke thaharaav se ganne mein rog aur keeton ka hamala hone ka khatara rahata hai.
- Ganne bonne kee taiyaaree ya ganne bonne ke sthiti mein kisaanon ke liye;
  1. Zameen kee Taiyaaree
    - ◇ Jutae, henga marne aur khet ko santhar karake bhoomi kee uchit taiyaaree sunishchit karen.

- ◇ Mittee kee sanrachana aur upajaoopan mein sudhaar ke liye mittee mein kaarbanik padaarth ya khaad shaamil karen.
- 2. Ganne kee Boyaee
  - ◇ Sahi gaharaee par ganne kee boyae karen.
  - ◇ Ankuran aur sheeghr vikaas ko badhaava dene ke liye ganne kee boyae ke dauraan mittee mein uchit namee kee sthiti sunishchit karen.
  - ◇ Kaam ke bojh ko baatne aur jal evan shram saadhanon ko adhik prabhaavee dhang se sanchaalit karane ke liye alag-alag boyae samay par vichaar karen
- 3. Sinchae
  - ◇ Kam varsha kee bhavishyavaanee vaale kshetron mein, ankuran aur sheeghr vikaas ke liye paryaapt mittee kee namee sunishchit karane ke liye ropan ke turant baad sinchae vyavastha ko laagoo karane par vichaar karen, jaise ki khet ko hal se jotna ya drip sinchae.
- 4. Ghaas Niyrantran
  - ◇ Mahatvapoom sthaapana ke dauraan ghaas ke vikaas ko rokane ke liye, badhne se pahale ya badhne ke baad ke ghaas niyantran upaayon ko laagoo karen.
  - Kisaanon ko salaah dee jaatee hai ki ve mausam ke anumaan kee baareeke se nigaraanee karen aur vaastavik varsha ke aadhaar par ganna boye, fertilizer daale aur ghaas niyantran jaisee gatividhiyon ko samaayojit karane ke liye taiyaar rahen.
  - Yaad rakhen, ye sujhaavon saamaany nirdesh hain, isliye aur adhik saalah jo ki aapake kshetr ke anukul ho, usse FSC sektar office ya SRIF office se le.
  - Aur salaah ke liye 8921839 par SRIF ko sampark karen.

## I-Taukei

- Vei kemuni na dau teidovu ni a teitei ena mua ni vula ko Maji kei na loma ni vula ko Evereli;
- 1. iTatarovi ni co ca
  - ◇ Me dau qaravi vakawasoma na veisala me qarauni kina na co ca, me vaka na kena wereci se vaka-yagataki na wainimate ni kena vakamatei ena vula ko Me, Jiune, kei na Jiulai me na kakua ni vakuai na dovu ena kakana bulabula ni qele, wai kei na rarama ni siga.
  - ◇ -Vakaraica vinaka na veivanua dau namaki me levu kina na tau ni uca (me vakai Dobuilevu, Vanua Levu) ni na rawa ni tubu vakasivia kina na co ca.
- 2. iWalewale ni maroroi ni kakana bulabula ni qele
  - ◇ Me nanumi me wasei vakarua na kena vakayagataki na ivakabulabula ni qele na 'Blend B,' me kena imatai ena vula ko Me ka kena ikarua ena vula ko Jiulai, me rawa ni vakadeitaki kina na kena sautu na kakana bulabula ni qele ena gauna ni tei dovu.
- 3. iWalewale ni maroroi ni wai
  - ◇ Ena vei vanua e namaki me lailai kina na tau ni uca (me vaka mai Cuvu ki Tavua), me dau nanumi me tekivutaki na veivakasama ni vaka soniwai me vukea na kena gadreva na wai na dovu.
  - ◇ Ena veivanua e namaki me levu kina na tau ni uca (me vaka mai Dobuilevu, Vanua Levu), me dau caka ka samaki vinaka na isalasala ni wai me kakua ni vakavuna na kena tao ka luvu na iteitei kei na kena vakacacani na dovu.
- 4. iWalewale ni tarovi ni dauvakacaca ni itei kei na matetaka
  - ◇ Me dau tei na itei ni dovu koya e sega ni dau vakacacani se tauvimate vakarawarawa mai na mate na 'pokka boeng' kei na 'leaf scald,' vakabibi ena vanua bucabuca. Naidiri kei Kaba e rau vanua ruarua ka rawarawa ni veitauvi kina na veimate oqo.
  - ◇ Ena gauna ni leqa ni wai (leqa na ivaka ta ni wai lalai ena gauna ni tau ni uca/lauqa), na matetaka na 'pineapple rot' ena rawa ni vakaberabera taka na kadre ni dovu. *Me dau vakayagataki na wainimate ni matetaka ena vei teitei ka dau kilai tani tu ni a sa vorati oti ena mate oqo.*
  - ◇ Ena vula ko Okotova ki na Tiseba, me na dau namaki na manumanu lalai ka vakatokai na 'army

worm.' Me dau samaki vinaka na ibili se saula ni iteitei mai na vei co ca eso.

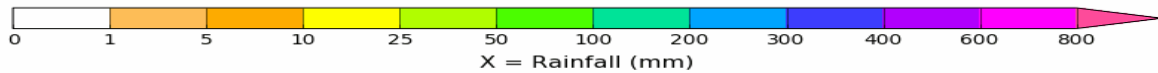
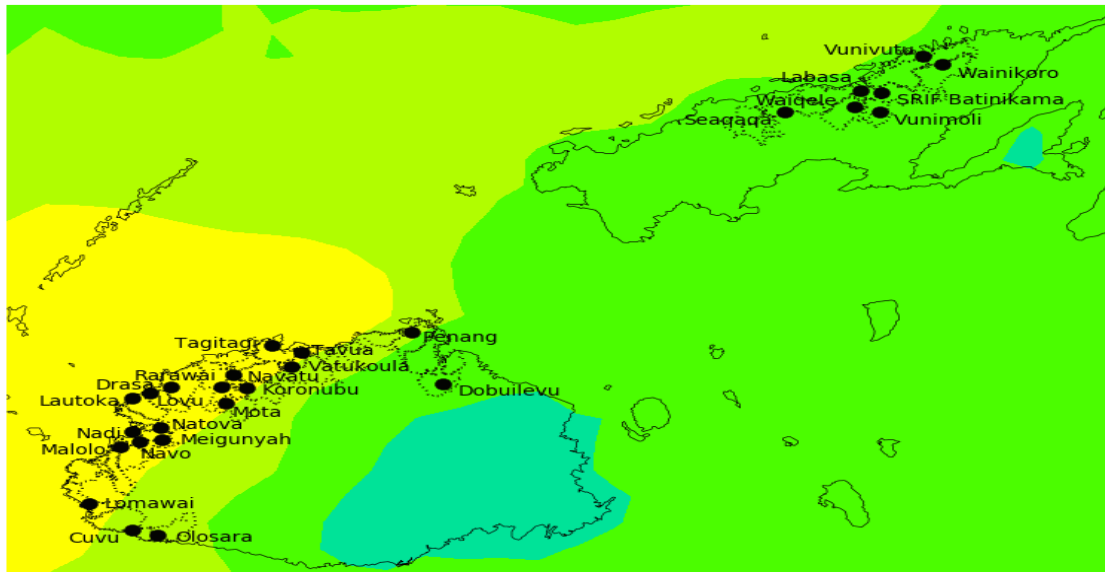
- ◇ Me dau vakarautaki vakavinaka na isalasala ni wai ena gauna ni tau bi ni uca me vukea na tubu ni dovu baleta kevaka e na tao na wai, ena rawa ni vakacacana na dovu ka veisureti talega vei ira na dauvakacaca ni itei ni dovu.
- Vei kemuni na dauteitei ena vakavakarau ki na teitei vaki ka vaka kina e na gauna saraga ni teitei:
  1. Na vakarautaki ni qele
    - ◇ Vakarutaki vinaka na qele ena kena cukiraki, siviyarataki ka vakatautauvatataki me logaloga vinaka na vanua ni teitei.
    - ◇ Me dau vakayagataki na civicvi ni kakana kina qele me vukea na kena bulabula vinaka.
  2. Na teitei
    - ◇ Me donu na iteitei ni itei ni dovu.
    - ◇ Me suasua vinaka na qele ena gauna ni teitei me rawa ni kadre vinaka kina na itei ka tubu totolo kina na dovu.
    - ◇ Me dau veilutuki na siga ni tei dovu me rawa ni mamada kina na kena qaravi na iteitei ka vaka kina na iwalewale ni vakayagataki ni wai kei ira na qarava na iteitei.
  3. Na ivaka soniwai
    - ◇ Ena vei vanua e namaki me lailai kina na tau ni uca, me dau nanumi me tekivutaki na veivakasama ni vaka soniwai ni oti saraga na teitei me vinaka kina na suasua ni qele ka vukea na kena kadre na itei kei na tubu totolo ni dovu.
  4. itatarovi ni co ca
    - ◇ Me vakauqeiti na veivakasama ni itatarovi ni co ca me ra kakua ni butakoca na kakana bulabula ni qele ena gauna ni teitei vaki.
- O ni sa vakasalataki na dauteitei mo ni vakamura vinaka na itukutuku ni draki ka dau tu vakarau ena so na veisau tubu koso ka rawa ni veisautaka kina na gauna ni teitei, na ivakabulabula ni qele kei na itatarovi ni co ca ni dau raici lesuvi na gauna e dau tau kina na uca.
- Veivakananumi tikoga ni veivakasama oqo era ivakasala ka sa bibi mo ni dau veitaratara kei iratou na vakaillesilesi mai na 'FSC se 'SRIF' me baleta na veivakasala eso e ganita na vanua o ni tiko kina kei na iwalewale ni tei dovu o ni qarava tiko.
- Ke tu e so na nomuni vakatataro, ni qai veitaratara kei iratou na SRIF ena naba ni talevoni 8921839.

## Climate Outlook

- El Niño has ended and the El Niño–Southern Oscillation (ENSO) has returned to neutral.
- ENSO-neutral state is likely to continue until at least July 2024.
- For May 2024, there is a high (75%) chance of receiving at least **10-25mm** of rainfall, on sugarcane growing areas from Lomaiwai to Tavua, **25-50mm** of rainfall in Cuva Olosara and Penang, while there is high chance of receiving at least **50-100mm** of rainfall in Dobuilevu and across sugarcane belt areas in Vanua Levu.
- During June 2024, there is a high (75%) chance of receiving at least **10-25mm** of rainfall from Cuvu to Tavua, **25-50mm** of rainfall in Olosara, Penang, Seaqaqa, Waiqele, Labasa, Batinikama, Wainikoro and Vunivutu, while there is high chance of receiving at least **50-100mm** of rainfall in Dobuilevu and Vunimoli.
- For July 2024, there is a high (75%) chance of receiving at least **5-10mm** of rainfall from Cuvu to Tagitagi, **10-25mm** of rainfall in Olosara, Vatukoula and Tavua, a high chance of receiving at least **25-50mm** of rainfall in Penang and across sugarcane belt areas in Vanua Levu, and a high chance of receiving at least **50-100mm** in Dobuilevu.
- During June to August 2024 period, there is a high (75%) chance of receiving at least **50-100mm** of rainfall from Sigatoka to Tavua sugarcane belt areas, while there is high chance of receiving at least **100-200mm** of rainfall in Penang, Seaqaqa, Waiqele, Labasa and Vunivutu, and there is a high chance of receiving **200-300mm** of rainfall in Dobuilevu, Vunimoli, Batinikama and Wainikoro.
- As Fiji slowly transitions into the Dry Season, variable rainfall is likely to be observed across the sugarcane belt areas, with northern Viti Levu, as well as the Northern Division stations, likely to receive rainfall, while suppressed rainfall likely for the rest of the stations.

## Rainfall Outlook: May 2024

75% chance of rainfall exceeding X mm:  
May 2024

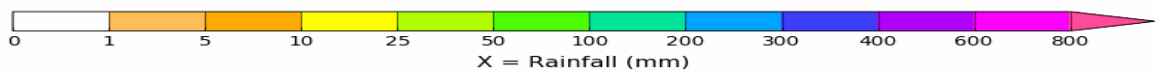
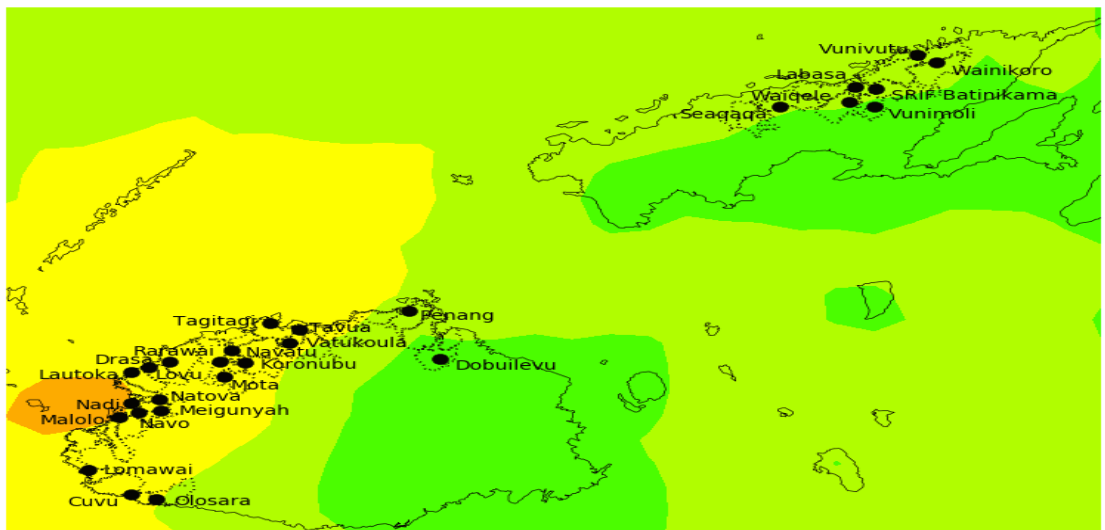


Data source: ACCESS-S2  
 Issued: 15/04/2024  
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 Shapefile data extracted from Flanders Marine Institute (2019), Maritime Boundaries Geodatabase: Maritime Boundaries and Exclusive Economic Zones (200NM), version 11. Available online at <http://www.marinerregions.org/>.  
 Base period: 1981–2018  
 Observations: MSWEP  
 Run: 13/04/2024

Figure 1: High (75%) chance of receiving at least 10-25mm of rainfall from Lomaiwai to Tavua, 25-50mm of rainfall in Cuvu Olosara and Penang, while there is high chance of receiving at least 50-100mm of rainfall in Doboilevu and across sugarcane belt areas in Vanua Levu. The confidence in the outlook is low to moderate.

## Rainfall Outlook: June 2024

75% chance of rainfall exceeding X mm:  
June 2024



Data source: ACCESS-S2  
 Issued: 15/04/2024  
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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/>.  
 Base period: 1981–2018  
 Observations: MSWEP  
 Run: 13/04/2024

Figure 2: High (75%) chance of receiving at least 10-25mm of rainfall from Cuvu to Tavua, 25-50mm of rainfall in Olosara, Penang, Seaqaqa, Waiqeke, Labasa, Batinikama, Wainikoro and Vunivutu, while there is high chance of receiving at least 50-100mm of rainfall in Doboilevu and Vunimoli. The confidence in the outlook is moderate.

## Rainfall Outlook: July 2024

75% chance of rainfall exceeding X mm:  
July 2024

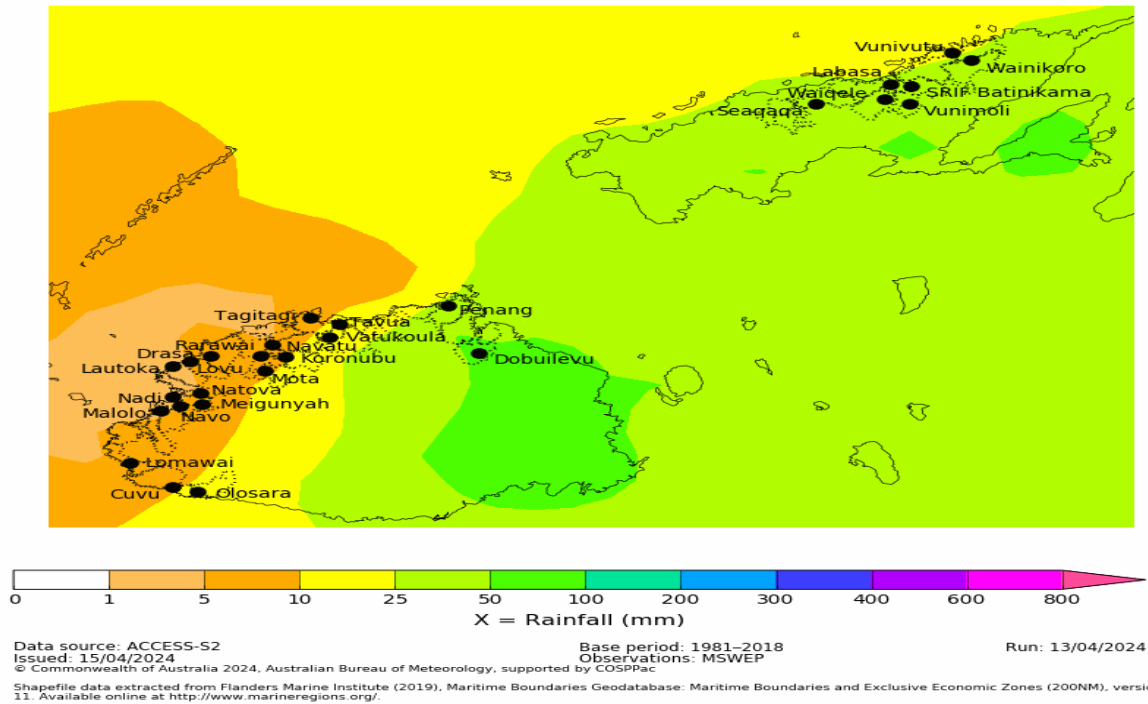


Figure 3: There is a high (75%) chance of receiving at least 5-10mm of rainfall from Cuvu to Tagitagi, 10-25mm of rainfall in Olosara, Vatukoula and Tavua, a high chance of receiving at least 25-50mm of rainfall in Penang and across sugarcane belt areas in Vanua Levu, and a high chance of receiving at least 50-100mm in Dobuilevu. The confidence in the outlook is low to moderate.

## Rainfall Outlook: June to August 2024

75% chance of rainfall exceeding X mm:  
June to August 2024

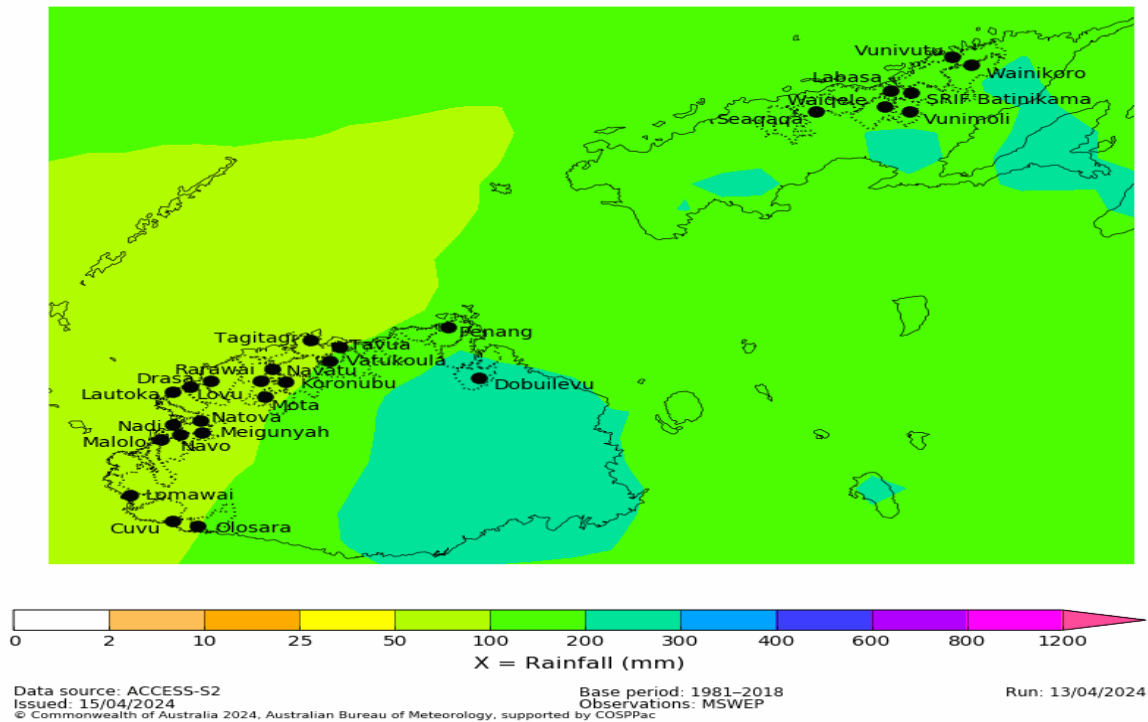


Figure 4: High (75%) chance of receiving at least 50-100mm of rainfall from Sigatoka to Tavua sugarcane belt areas, while there is high chance of receiving at least 100-200mm of rainfall in Penang, Seaqaqa, Waiqele, Labasa and Vunivutu, and there is a high chance of receiving 200-300mm of rainfall in Dobuilevu, Vunimoli, Batinikama and Wainikoro. The confidence in the outlook is moderate to 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.

**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.