

Fiji Meteorological Service

Early Action Rainfall Watch (EAR Watch)

The Early Action Rainfall Watch provides the Fiji National Disaster Management Office and the Disaster Management Actors with a brief summary of recent rainfall patterns and the rainfall outlook for the coming months.

Rainfall Status to December 2022:

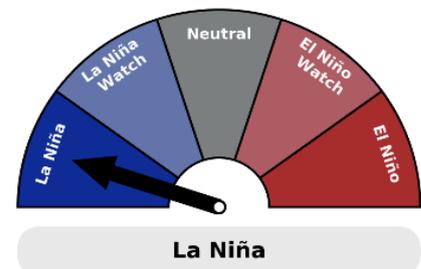
Issued: 11/01/2023

- At 3-month timescale, **Seriously Wet** conditions exist for Viwa, Nacocolevu, Kadavu, Matuku and Ono-i-Lau, **Very Wet** conditions exist for most parts of the Western Division, Navua and parts of the southern Lau Group, while **No Alert** is in place for the rest of the Fiji Group. **Very Dry** conditions exist for Rotuma.
- At 6-month timescale, **Seriously Wet** conditions exist for Kadavu and Ono-i-Lau, **Very Wet** conditions exist for Nacocolevu, Nadi, Lautoka, Ba, Matuku and parts of the southern Lau Group and **No Alert** is in place for the rest of the Fiji Group. **Seriously Dry** conditions exist for Rotuma.
- At the 12-month timescale, **Seriously Wet** conditions exist for most parts of the Western Division, Kadavu, Matuku, Lomaiviti Group and Ono-i-Lau, **Very Wet** conditions persists for parts of the Northern Division, Navua, Viwa, Yasawa-i-Rara, Vanuabalavu and Lakeba, while **No Alert** is in place for the rest of the Fiji Group. **Very Dry** conditions exist for Rotuma.

Rainfall Outlook:

- For the last two weeks in **January**, there is **medium** chance of **Very Wet** conditions across Western and Northern Divisions, most parts of the Eastern Division and Rotuma.
- For **January**, there is a **high** chance of **Very Wet** conditions for the Mamanuca Group. There is a **medium** chance of **Very Wet** conditions for most parts of the Western and Northern Divisions, Kadavu, and southern Lau Group. There is a **medium** chance of **Very Dry** conditions for Rotuma.
- For **January to March 2023**, there is a **high** chance of **Very Wet** conditions for the Mamanuca Group, Nacocolevu and Ono-i-Lau. There is a **medium** chance of **Very Wet** conditions for most parts of Viti Levu, Mamanuca and Yasawa Group, southern Vanua Levu, Beqa, Vatulele, Kadavu and the Lau Group. There is a medium chance of **Very Dry** conditions for Rotuma.

El Niño-Southern Oscillation (ENSO) Status: La Niña.



Time periods and Impacts on the ground

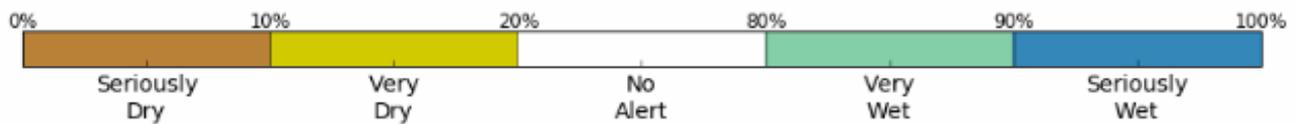
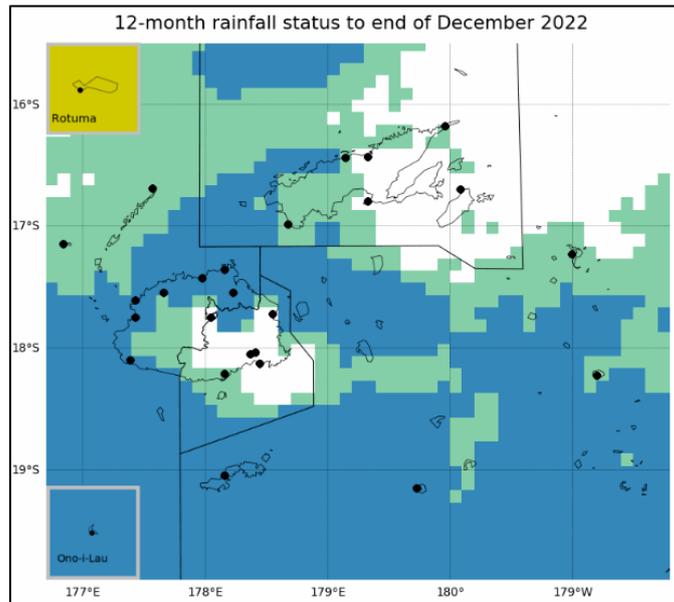
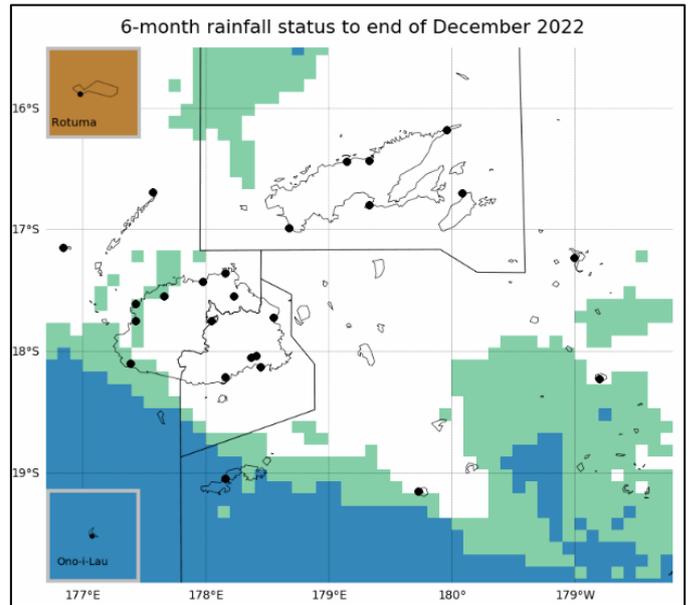
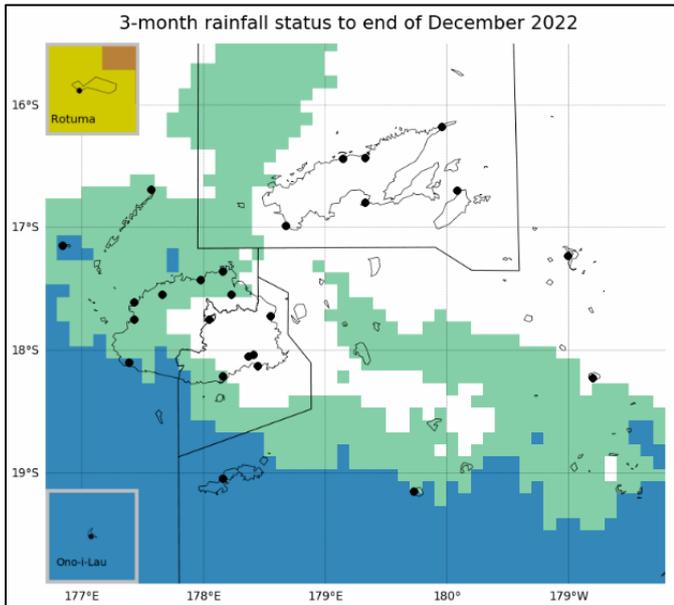
3-months: rainwater tanks, small streams, hand-dug wells, shallow bores, young sugarcane, traditional vegetables (e.g., bele), cabbage, tomatoes, beans, eggplant, okra, tomatoes, watermelon, rice, crops (yam, taro, cassava, pasture)

6-months: small rivers, bores, streams/rivers, mature sugarcane, kumala, uvi, hybrid dalo, corn, pineapple, pawpaw, dalo (vuci), tapi, kumala (carrot variety)

12-months: deep bores/large aquifer system, reservoirs, dams, rivers, tapi, coconuts, breadfruit, mango, kava, banana, vudi, fruit trees (e.g., noni, lemon, orange)

Allow for uncertainty associated with island size, topography, geology and soil type.

Rainfall monitoring for the last 3-months, 6-months and 12-months



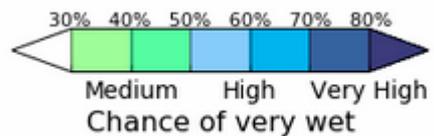
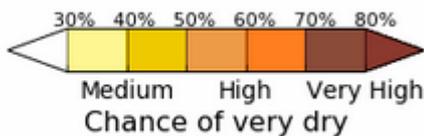
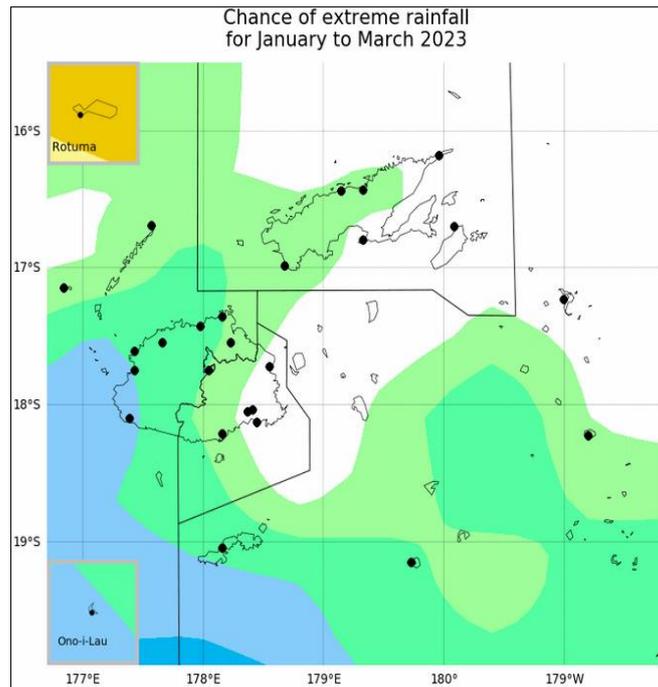
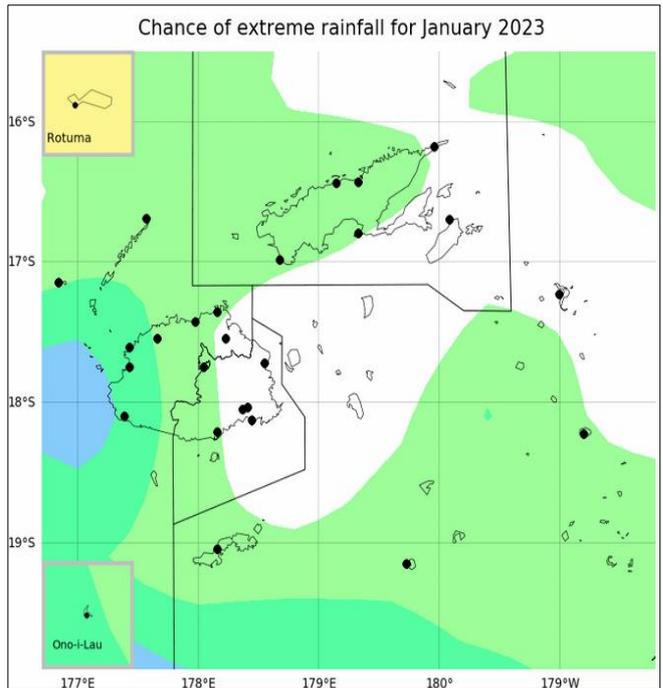
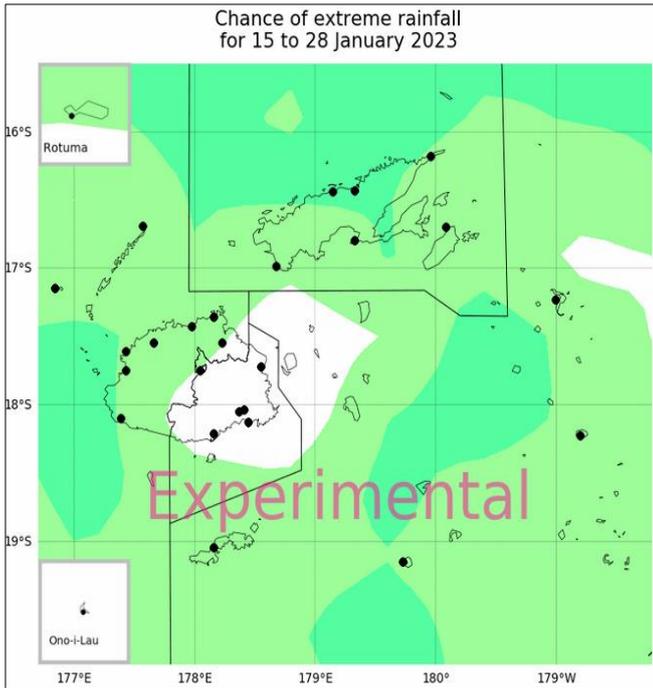
Data source: MSWEP
Method: Percentile

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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/>.

Model Run: 01/12/2022
Base period: 1980-2021

Rainfall Outlooks for 15 – 28 January, January and January to March 2023



Data source: ACCESS-S2

Issued: 03/01/2023

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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.marineregions.org/>.

Model Run: 01/01/2023

Base period: 1981-2018

Information on the Maps

Rainfall Monitoring maps

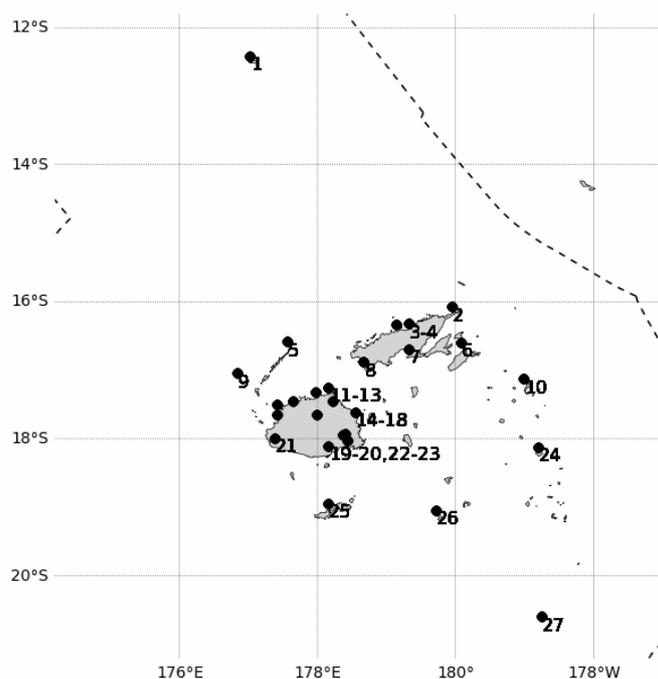
Fiji's rainfall status is assessed using the MSWEP dataset available via <http://www.gloh2o.org/mswep/>. MSWEP is a global precipitation dataset at 0.1° resolution, available from 1979 that combines data from rain gauges, satellite observations and reanalysis. The data is processed and presented in Percentile Index form by the Australian and New Zealand DFAT Climate and Ocean Support Program in the Pacific. 'No Alert' is assigned where rainfall was between the 20th and 80th percentile for the period in question.

Forecast for Extreme Rainfall maps

The chance of extremes outlook maps present the likelihood of very wet or very dry conditions. They are displayed by the chance that the outlook will result in rainfall or temperature in the top or bottom 20% of historical observations for the selected outlook period. Where there is white shading it is less likely there will be either very wet or very dry conditions, rainfall is likely to be close to normal in this case. An alert 3 for very dry (very wet) conditions is associated with a very high probability of rainfall being in the lowest (highest) 20% on record. An alert 1 for very dry (very wet) conditions is associated with a moderate/medium chance of rainfall being in the lowest (highest) 20% on record. Confidence in the forecast is greatest for alert 3.

The outlooks have been produced using the Australian Bureau of Meteorology ACCESS-S2 model <http://www.bom.gov.au/climate/ahead/about/model/access.shtml>.

Fiji Reference Map



Rotuma 1. ,Udu Point 2. ,Labasa 3. ,Seaqaqa 4. ,Yasawai 5. ,Matei 6. ,Savusavu 7. ,Nabouwalu 8. ,Viwa 9.
Vanuabalavu 10. ,Pengmil 11. ,Yawara 12. ,Dobuilevu 13. ,Rarawai 14. ,Lautmil 15. ,R.K.S. Lodon 16. ,Nadi 17. ,Monasavu 18.
Nausori 19. ,Koronivia 20. ,Nacocolevu 21. ,Laucala 22. ,Tokotoko 23. ,Lakeba 24. ,Vunisea 25. ,Matuku 26. ,Ono-i-Lau 27.

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