El Niño-Southern Oscillation Status: as of 29 February 2024

The El Niño persists, although a steady weakening trend is evident in its oceanic indicators. Climate models indicate sea surface temperatures in the central tropical Pacific are expected to continue declining and are forecast to return to ENSO-neutral in the southern hemisphere autumn 2024. Atmospheric indicators are mixed but are consistent with a steadily weakening El Niño. Cloudiness near the equatorial Date Line has decreased over the last fortnight, returning to the climatological average. Short term pressure patterns are characteristic of an El Niño state, but when averaged over 60- and 90- days they are more typical of ENSO-neutral. Temporary fluctuations of ENSO atmospheric indicators are common during summer and are not an indication of El Niño strength.

Rainfall Status: as of 29 February 2024

The 3-month rainfall status for December 2023 to February 2024 was Very Wet or Seriously Wet in the northern hemisphere over most of Palau, Guam, and parts of CNMI. The Very Wet or Seriously Wet was observed in the southern hemisphere over northern and southeast PNG stretching south-eastwards over southern Solomon Islands, New Caledonia, Vanuatu, southern Fiji, and southern Tonga. Patches of Very Wet or Seriously Wet were observed in northern FSM, northern RMI, southern Niue, and southern French Polynesia.

The rainfall status was Very Dry or Seriously Dry over the same period over northeastern PNG EEZ, Nauru and stretching south-eastwards over Kiribati (southern Gilbert, Phoenix and Line Is.), northern Solomon Islands, Tuvalu, Rotuma (Fiji), Wallis and Futuna, Samoa, Tokelau, American Samoa,
northern and central Cook Islands, northern French Polynesia, and Pitcairn Islands. Patches of Very Dry or Seriously Dry were observed in central RMI, and northern Tonga.

The regional maps are available via http://access-s.clide.cloud/files/project/EAR_watch/pacificx/

Three-month total rainfall is typically used for monitoring grasslands, shallow rooted plants and small water body (e.g. small water tanks, streams) moisture deficits. Allow for uncertainty associated with island size, topography, geology and soil type.

**Rainfall Status**

- Estimates of moisture/water stress are based on recent rainfall compared with historical observations using the Percentile (Decile) Index.

- Definitions: “Very Dry” = rainfall in the lowest 20% of the historical record for that location and season, “Very Wet” = rainfall in the highest 20% for that location and season, “Seriously Dry” = rainfall in the lowest 10% of the historical record for that location and season, “Seriously Wet” = rainfall in the highest 10% for that location and season.

**Monthly Rainfall Watch: March 2024**

For March 2024, there is a medium to very high chance of rainfall in the Very Wet category (highest quintile, which includes the Seriously Wet category) in a band stretching in an easterly direction from PNG’s mainland in the far west to Kiribati (northern Line Is.) in the east. Patches of Very Wet category also predicted for southern American Samoa, and central French Polynesia.

There is a medium to very high chance that rainfall will be in the Very Dry category (lowest quintile, which includes the Seriously Dry category) in a band stretching eastwards from Palau, Guam, CNMI, FSM, and RMI. In the southern hemisphere, there is medium to high chance of very Dry category over the PNG southeastern EEZ, southern Solomon Islands, New Caledonia, Vanuatu, most of Fiji, central and southern Tonga, Niue, southern Cook Islands, northeastern and southern French Polynesia, and most of Pitcairn Islands.
Seasonal Rainfall Watch: March – May 2024

For March to May 2024, there is a medium to very high chance of rainfall in the Very Wet category (highest quintile, which includes the Seriously Wet category) stretching east-southeast from PNG (mainland, Islands) to northern Solomon Is, southern Nauru, Kiribati (Gilbert, Phoenix, northern and central Line Islands), Tuvalu, Fiji (Rotuma), northern Wallis and Futuna, Tokelau, northern Samoa EEZ, American Samoa, northern half of the Cook Islands, and central French Polynesia.

In contrast, there is a medium to very high chance of rainfall in the Very Dry category (lowest quintile, which includes the Seriously Dry category) in a band stretching from northern half of Palau to northern and central RMI in the northern hemisphere. Another band of Very Dry Category stretches from Australia, across PNG’s southern EEZ, southern Solomon Islands, New Caledonia, Vanuatu, Fiji, most of Tonga, Niue, southern Cook Islands, southern and northern French Polynesia, and Pitcairn Islands.

Monthly and Seasonal Rainfall Watch

- Information provided has been interpreted on a divisional scale where possible as Pacific Island Countries can experience a high range of rainfall variability within a country. It is possible to have forecasts which simultaneously favour above and below normal rainfall in different parts of the one country.

- Definitions: “Chance of Very Dry” = percent chance of rainfall in the lowest 20% of the historical record for that location and season, “Chance of Very Wet” = percent chance of rainfall in the highest 20% for that location and season. Medium, High and Very High refer to the percent probability level where Very High has the highest confidence and represents the range 70% and above.

- Local Met Services should be contacted for detailed information and outlooks. This product is not to be distributed to the public or other organisations.