



# Climate and Ocean Support Program in the Pacific (COSPPac) Regional Early Action Rainfall Watch June 2023

## El Niño-Southern Oscillation Status: as of 31 May 2023

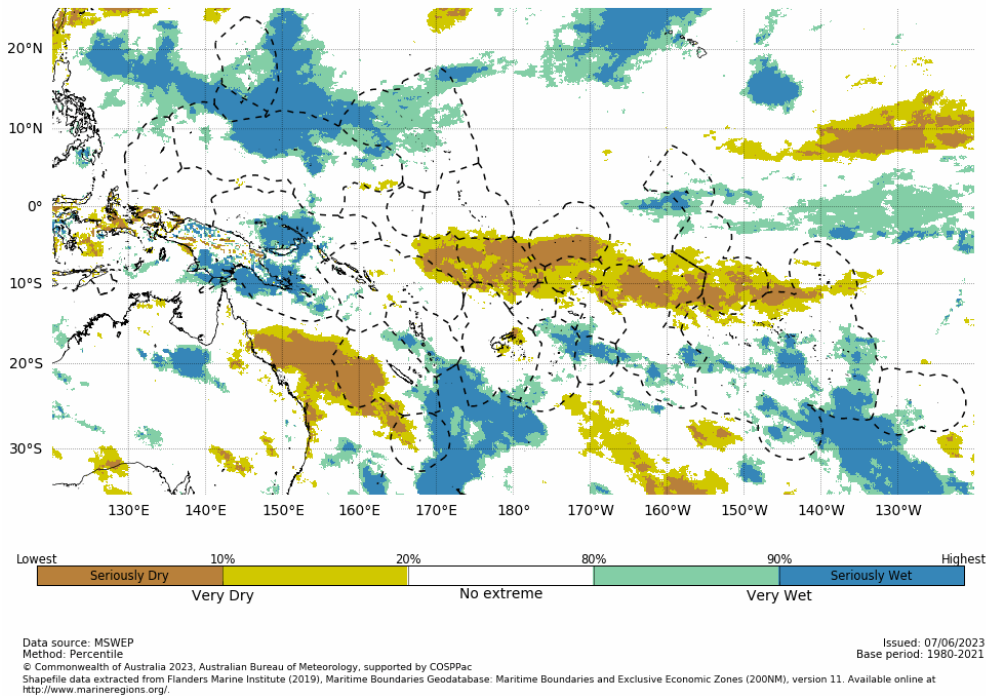
The Bureau's ENSO Outlook has been shifted to El Niño ALERT, indicating a 70% chance of El Niño forming this year. This equates to roughly three times the normal chance of an El Niño forming. Central and eastern Pacific sea surface temperatures (SSTs) have warmed to El Niño thresholds. Some atmospheric indicators such as the Southern Oscillation Index (SOI) have shifted towards El Niño thresholds, but wind, cloud and broad-scale pressure patterns indicate the Pacific Ocean and atmosphere are yet to reinforce each other, as occurs during El Niño events.

For Pacific Island countries in the central Pacific region, there is a region where below normal rainfall is likely or very likely stretching from northern Solomon Islands, Tuvalu, Tokelau and southern Line Islands (Kiribati). Patches of below normal were observed in Coral Sea region, and New Caledonia in May 2023.

The ACCESS model shows the opposite signal, that is, moderate to high chances for above average rainfall in a band stretching east of northeast Palau to northern Line Islands (Kiribati). Above normal rainfall also favoured for most of PNG mainland and northern Tonga.

## Rainfall Status: as of 31 May 2023

3-month rainfall status to end of May 2023



The 3-month rainfall status for March to May 2023 was Very Dry or Seriously Dry stretching eastwards from northeastern Solomon Islands across Tuvalu, Kiribati (patches of western plus the southern halves of central and eastern), northeast Wallis and Futuna, Tokelau, patches in Samoa, northern Cook Islands, and northern French Polynesia. In addition, a smaller area of Very Dry and

Seriously Dry affected the Coral Sea region and western New Caledonia, while small patches were evident around Fiji's main islands, particularly the Northern Division.

Conversely, the status was Very Wet or Seriously Wet over the same period over northern Palau, Guam, CNMI, northern FSM, and northern and central RMI. The same status was also observed in PNG's southern mainland and Islands, southeastern New Caledonia EEZ, southwest Vanuatu, southern Fiji EEZ, northern and southern Tonga, southern Samoa EEZ, Niue, southern Cook Islands and central and south French Polynesia

The regional maps are available via [http://access-s.clide.cloud/files/project/EAR\\_watch/pacific/](http://access-s.clide.cloud/files/project/EAR_watch/pacific/)

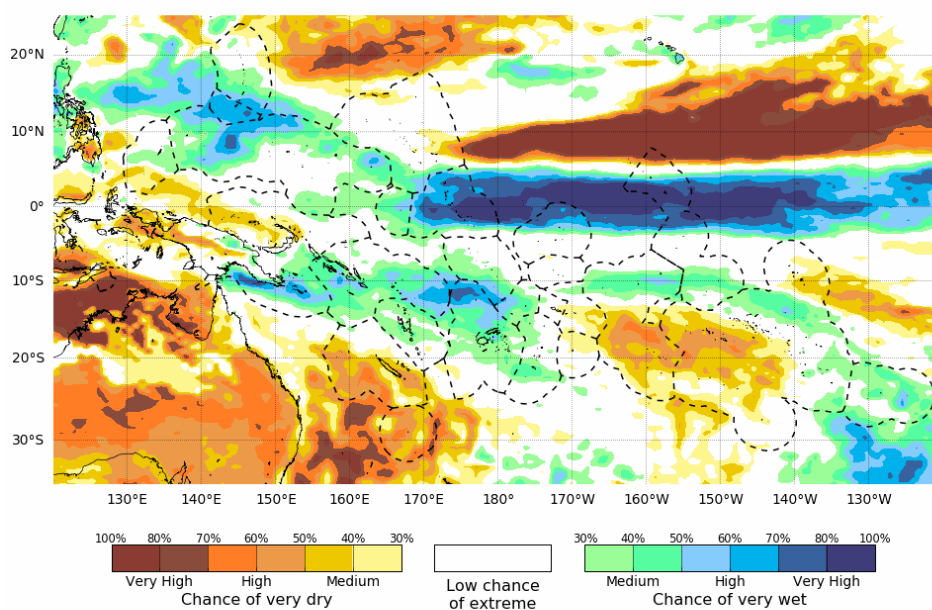
Three-month total rainfall is typically used for monitoring grasslands, shallow rooted plants and small water body (e.g. small water tanks, streams) moisture deficits. Allow for uncertainty associated with island size, topography, geology and soil type.

## 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: June 2023

Chance of extreme rainfall for June 2023



Data source: ACCESS-S2  
Issued: 03/06/2023  
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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.marinerregions.org/>  
Model Run: 01/06/2023  
Base period: 1981-2018

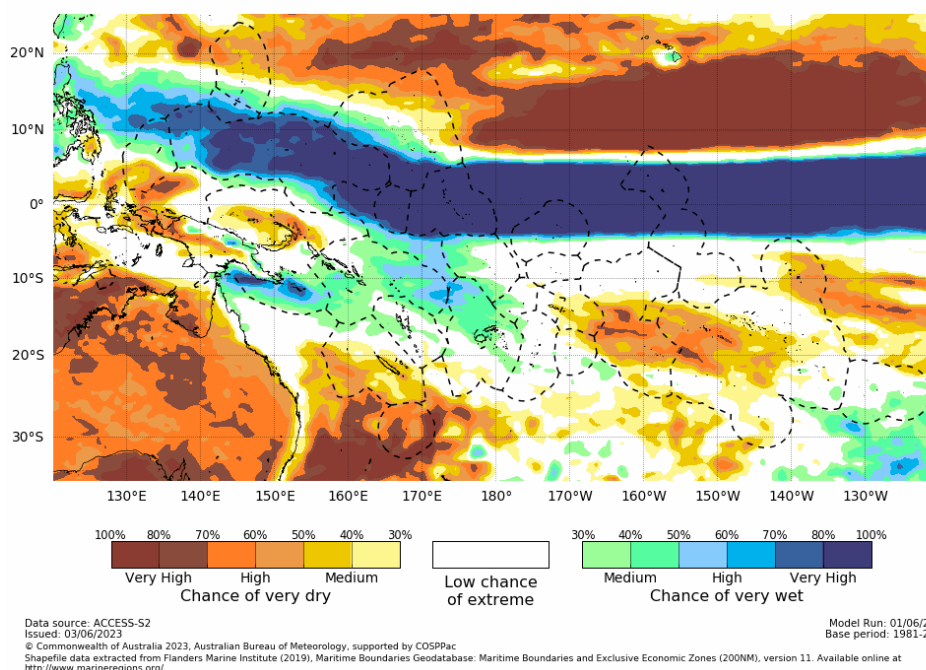
For June 2023, there is a medium to high chance that rainfall will be in the Very Dry or Seriously Dry ranges in patches of southern Palau, the Coral Sea region, New Caledonia, small parts of Samoa, southern American Samoa, northern Niue, southern to central Cook Islands, and central and southern French Polynesia.

There is a medium to very high chance that rainfall will be in the Very Wet or Seriously Wet ranges in central Palau, Guam, southern CNMI, northern and western FSM, southern RMI, southeast PNG mainland and Bougainville, Solomon Islands, northern and central Vanuatu, Fiji, Nauru, Kiribati

(Gilbert Islands, northern Phoenix Islands, northern and southern Line Islands), southern Tuvalu, Wallis and Futuna, western Tonga, northern Cook Islands, north-central French Polynesia and Pitcairn Islands.

## Seasonal Rainfall Watch: June – August 2023

Chance of extreme rainfall for June to August 2023



For June to August 2023, there is a high to very high chance of rainfall in the Very Wet or Seriously Wet ranges stretching from northern Palau east to southeastwards across FSM, southern RMI, Nauru, Kiribati (Gilbert, northern Phoenix and northern Line Islands) and western Tuvalu, while the chances are medium to high in a zone stretching from southeastern PNG across the Solomon Islands, patches in Vanuatu, to northern Fiji.

In contrast, there is a medium to high chance of rainfall in the Very Dry or Seriously Dry ranges in parts of the PNG Highlands and Islands, New Caledonia, Samoa, American Samoa, northern Niue, central and southern Cook Islands, and most of French Polynesia

### 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 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.

