

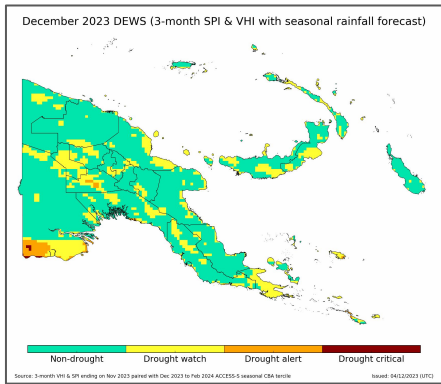
## Key messages

Issued 12/12/2023

Drought Critical conditions over small areas have emerged in the southern end of Western Province. Hela continues to be on Drought Watch with Severe Vulnerability levels. El Niño and positive IOD are underway. While there is still potential that the combined *drying effects* are in play, their effects are not physically visible at this time.

## Drought Early Warning Status (DEWS)

Derived from observed 3-month rainfall and vegetation health, along with 3-month forecasted rainfall.



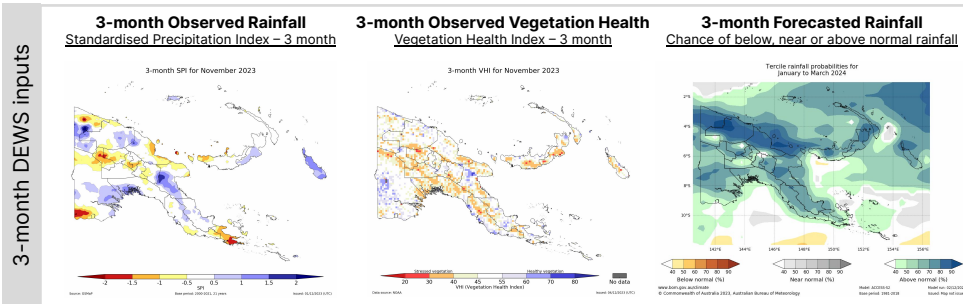
- Small areas of Drought Critical have emerged towards the south of Western province.
- Drought watch conditions persist for Hela at 3-month timescales.
- At the [12-month rainfall timescale](#), deficiencies linger for Bougainville and some areas in the Highlands and Momase provinces. Long term deficiencies will have different impacts to short term rainfall deficiencies. Low groundwater, brackish wells and reduced streamflow may be some impacts observed at this timescale.

### 3-month timescale provincial summary

(A province's overall status is given by its majority status on the map and is presented in this [summary table](#))

<span style="color: yellow;">●</span> Drought Watch	<span style="color: orange;">●</span> Drought Alert	<span style="color: red;">●</span> Drought Critical
Below average rainfall or Stressed vegetation or Dry forecast	(Below average rainfall or Stressed vegetation) and Dry forecast	Below average rainfall and Stressed vegetation and Dry forecast
Hela, NCD and New Ireland	No Province	No Provinces

click to enlarge



### Links to other timescales:

- [1-month Drought Early Warning Status](#)  
Drought early warning status using 1-month rainfall, 1-month vegetation health and 3-month rainfall forecast.
- [1-month Standardised Precipitation Index](#)  
Rainfall over the last month.
- [1-month Vegetation Health Index](#)  
Vegetation health over the last month.
- [6-month Drought Early Warning Status](#)  
Drought early warning status using 6-month rainfall, 6-month vegetation health and 3-month rainfall forecast.
- [6-month Standardised Precipitation Index](#)  
Rainfall over the last 6 months.
- [6-month Vegetation Health Index](#)  
Vegetation health over the last 6 months.

## Provinces at Risk if Drought Occurs

Contextualise drought early warning information with drought risk information.

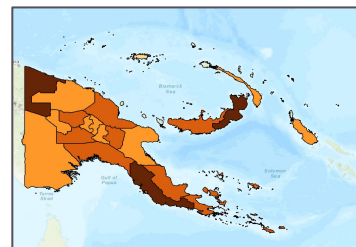
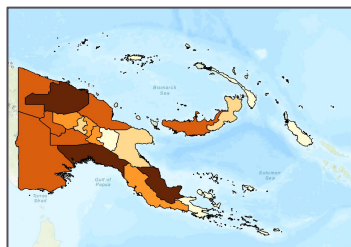
**Drought risk** is the probability of harmful impacts resulting from interactions between drought hazard, exposure, and vulnerability. Hazard information is given by the Early Warning Status, with drought exposure and vulnerability levels shown in the maps below.

### Provinces of concern:

- **Hela** has a majority Drought Watch status with Moderate exposure levels and Severe vulnerability levels.

**Exposure** - Extent of exposed aspects of the total population and its livelihoods in an area which drought may occur.

**Vulnerability** - Likelihood of exposed factors to suffer negative impacts when drought occurs.



## Climate Context

A summary of the relevant climate drivers affecting PNG over the coming months

- ACCESS-S outlook for next 3 months, January to March, forecasts a likely above average rainfall for the country. For next fortnight a likely average to above average rainfall outlook for East Sepik, Maus and New Ireland, however for most parts of the country below average rainfall is expected.
- El Niño currently in place. This El Niño is likely to continue into at least March 2024.
- A positive Indian Ocean Dipole (IOD) continues. Models indicate this positive IOD to end likely in January.
- El Niño and its concurrence with the positive IOD can have an "amplifying effect" over the country. Their combined drying effects on PNG are typically stronger and more widespread, potentially leading to reduced rainfall. While there is still some potential in their combined drying effects, their effects are not physically visible at this time.
- Most climate models indicate a weak MJO event progressing eastwards across the Western Pacific. A moderate to strong MJO was present in the Maritime Continent last week before heading east.