

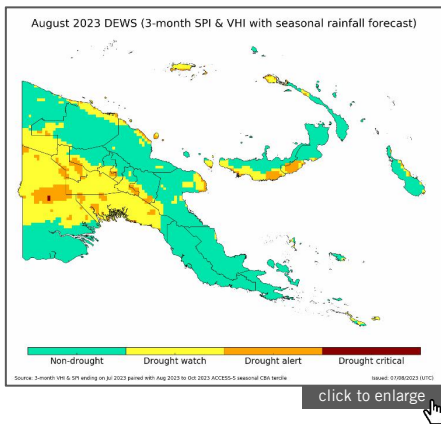
Key messages

Issued 11/08/2023

Chimbu, Hela and Southern Highlands continues to remain on Drought Watch. Southern Highlands at Drought Watch with severe vulnerability and exposure levels. El Niño Alert continues. Climate models suggest that a positive Indian Ocean Dipole (IOD) event is likely to develop by early September. Impacts tend to be more extreme when El Niño events are compounded with a positive IOD event.

Drought Early Warning Status (DEWS)

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

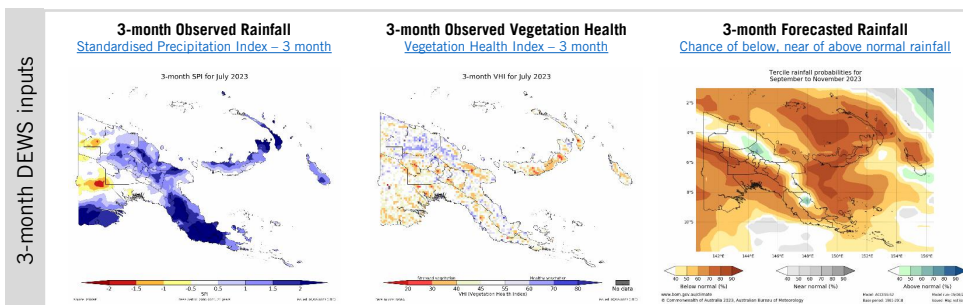


- Drought Critical areas have emerged in parts of Western provinces.
- Drought watch conditions persist for Chimbu, Hela and Southern Highlands province at 3-month timescales.
- At the [12-month rainfall timescale](#), deficiencies linger for Bougainville, East New Britain, New Ireland and Manus as well as 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](#))

Drought Watch	Drought Alert	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
Chimbu, Gulf, Hela, Manus, Southern Highlands, Western and Western Highlands	No Provinces	No Provinces



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

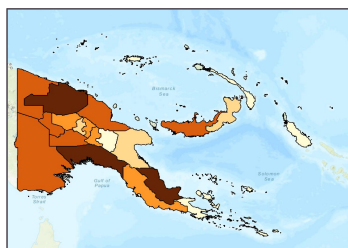
Contextualise drought early warning information with drought risk information.

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.

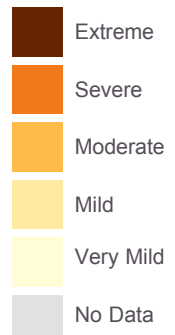
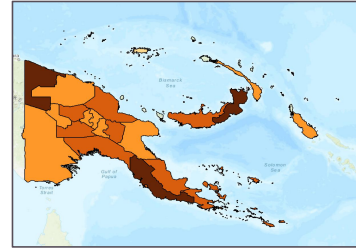
Provinces of concern:

- **Southern Highlands** has a majority Drought Watch status with severe exposure and vulnerability levels
- **Hela** has a majority Drought Watch status with severe exposure levels and moderate vulnerability levels.
- **Chimbu** has a majority Drought Watch status with moderate exposure and 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-5 outlook for September to November forecasts average to slightly above average rainfall in Northern (Oro), Madang and East Sepik. The rest of the country is forecasted to receive from average to below average rainfall.
- El Niño Alert status is still current according to Australian Bureau of Meteorology. The reason being that the oceanic and the atmospheric indicators are yet to reinforce each other as normally occurs during an El Niño event. However, other Global Climate Producing Centers such as NOAA-CPC and APCC has already declared an El Niño.
- The Indian Ocean Dipole (IOD) is currently neutral. Climate models suggest that a positive IOD event is likely to develop by early September. During El Niño events, rain is usually reduced in most of PNG, and the highlands region sees a greater risk of frost due to colder nights caused by less cloud cover. These effects become stronger when El Niño combines with a positive IOD.
- The Madden-Julian Oscillation (MJO) is currently weak, with most climate models surveyed indicating no significant strengthening of the MJO in the next two weeks.