

February 2024 Drought Update



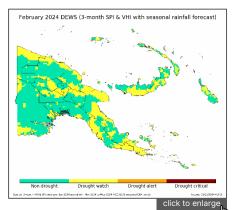
Key messages

Issued 19/02/2024

NCD and New Ireland continues to be on Drought Watch with moderate to severe Vulnerability levels. El Niño is weakening and likely to transition into neutral conditions by March or April. An IOD has returned to neutral. The wet season continues which may mean that the drying effects can be further reduced.

Drought Early Warning Status (DEWS)

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



- Drought watch conditions persist for NCD and New Ireland at 3-month timescales.
- Hela has received enough rainfall in recent months easing drought conditions in the 3 months timescale.
 - At the <u>12-month rainfall timescale</u>, deficiencies remain in some parts of 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 Below average rainfall or Stressed vegetation or Stressed vegetation and Stressed vegetation and

Dry forecast

Dry forecast Central, East New Britain, Enga, Jiwaka, Madang, Manus, Milne Bay, Morobe, NCD, New Ireland and West New Britain, Western Highlands

No Province

Stressed vegetation and Dry forecast

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.

Extreme

6-month Vegetation Health Index Vegetation health over the last 6 months.

Provinces at Risk if Drought Occurs

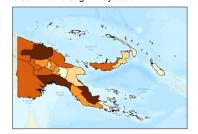
Contextualise drought early warning information with drought risk information.

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.

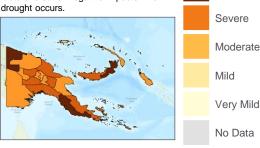
Provinces of concern:

- NCD has a majority Drought Watch status with Moderate exposure levels and Severe vulnerability levels.
- New Ireland has a majority Drought Watch status with Mild exposure levels and moderate 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 one and three months, shows a likelihood of above average rainfall for the country. Milne Bay in the next three months is predicted to receive average rainfall.
- El Niño is weakening and likely to reach neutral conditions by March or April.
- An Indian Ocean Dipole (IOD) has returned to neutral. Most climate models indicate the IOD to remain neutral at least up to April.
- The MJO currently in the Central Pacific. Most models indicate the MJO to remain in the Central Pacific in the next two weeks.