PRESS RELEASE

Ministry of Natural Resources and Climate Change

DEPARTMENT OF CLIMATE CHANGE AND METEOROLOGICAL SERVICES

UPDATE OF THE 2024/2025 CLIMATE OUTLOOK FOR MALAWI

October-November-December (OND) 2024

The third driest and second hottest since 1970.

January-February-March (JFM) 2025

There is a 58% probability of above-normal rainfall in southern Malawi. In northern Malawi, the probability is approximately 50%.

Review of October-November-December (OND) 2024 Sub-season

The 2024/2025 rainfall season was expected to be influenced by La Niña, among other climate factors. Forecasts suggested above-normal rainfall for the January-April 2025 period, but normal to below-normal rainfall during the October-December (OND) 2024 sub-season. While the OND forecast (Figure 1-left) predicted below-normal rainfall, the actual OND rainfall (Figure 1-middle) was slightly lower than expected. Many districts in the country experienced below-normal rainfall. The deviation from the forecast is potentially explained by the delayed manifestation of the La Niña phenomenon, which did not become evident until January.

The models accurately predicted rainfall in 26% (of districts, while in total a significant 78% experienced both accurate and partial matches (half correct, Figure 1-right). The observed OND 2024 sub-season was both exceptionally dry and hot. It ranked as the third driest since 1971 (after 2021 and 1990), Figure 2, and the second hottest since 1970 (after 2021), Figure 3. This was further complicated by frequent false onsets, where initial rainfall was followed by long dry spells. The unusually high temperatures, 1.9 degrees above normal, intensified water loss and exacerbated the impacts of these dry conditions. However, OND 2021 remains the most severe on record, being both the driest and hottest. While this analysis focuses on the OND period, it's important to recognize that the full year of 2024 marks the hottest since 1970, registering 2.9 degrees above the 1981-2010 baseline.

Update of January-February-March (JFM) 2025 Sub-season

During January, February, and March (JFM), the probability of above-normal rainfall is still high. However, this likelihood is stronger in southern Malawi (58%), while the northern regions have a 50% chance. Additionally, the probability of below-normal rainfall is higher over northern areas at 33% compared to the south at 17% (Figure 4).

"Stay informed, stay prepared, and stay safe during the upcoming rainfall season. Your safety and well-being are our top priorities.

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For further information, contact: The Director of Climate Change and Meteorological Services, P.O. Box 1808, Blantyre, E-mail: metdept@metmalawi.gov.mw, Website: www.metmalawi.gov.mw

October-November-December (OND) rainfall performance

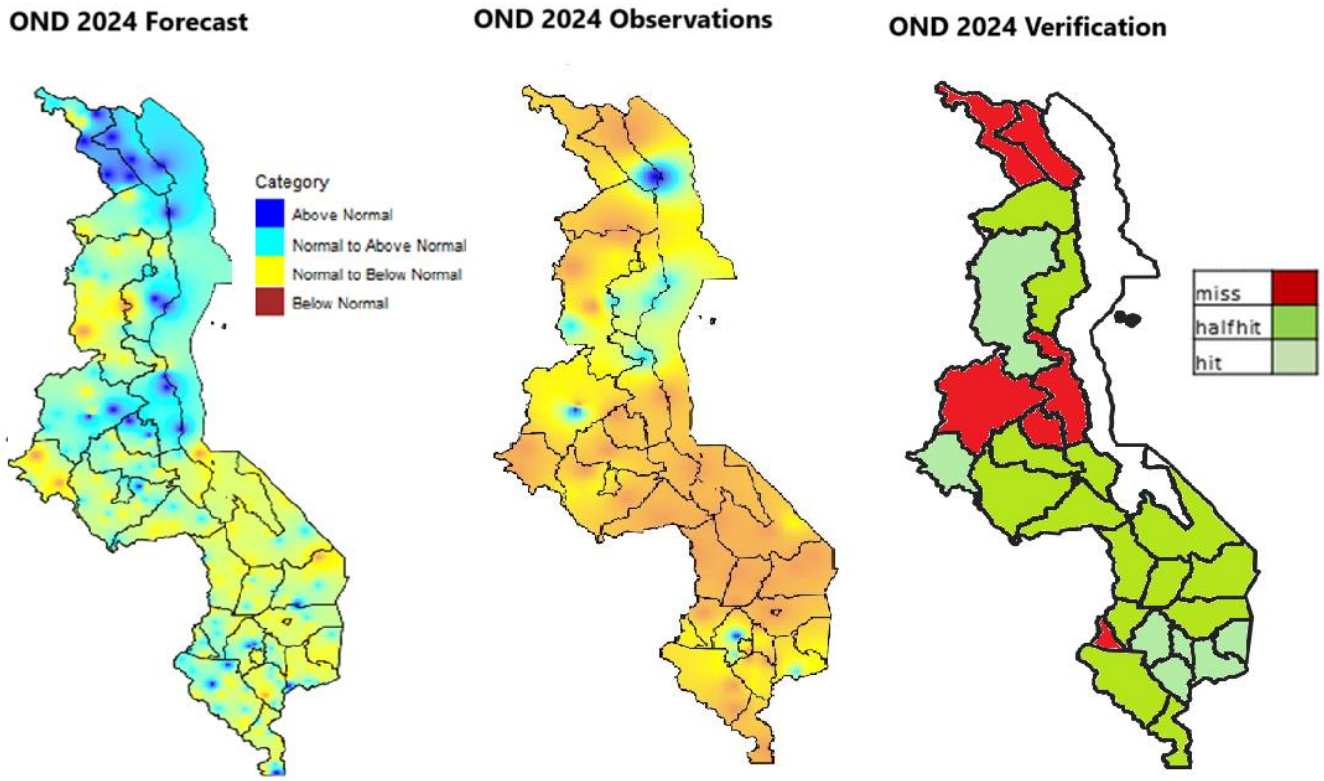

Figure 1 Performance of rainfall during October-November-December (OND) sub-season. Left-OND forecast, Middle-OND as observed, Right-Forecast verification

Comparison of October-November-December rainfall (OND) sub-season from 1970 to 2004

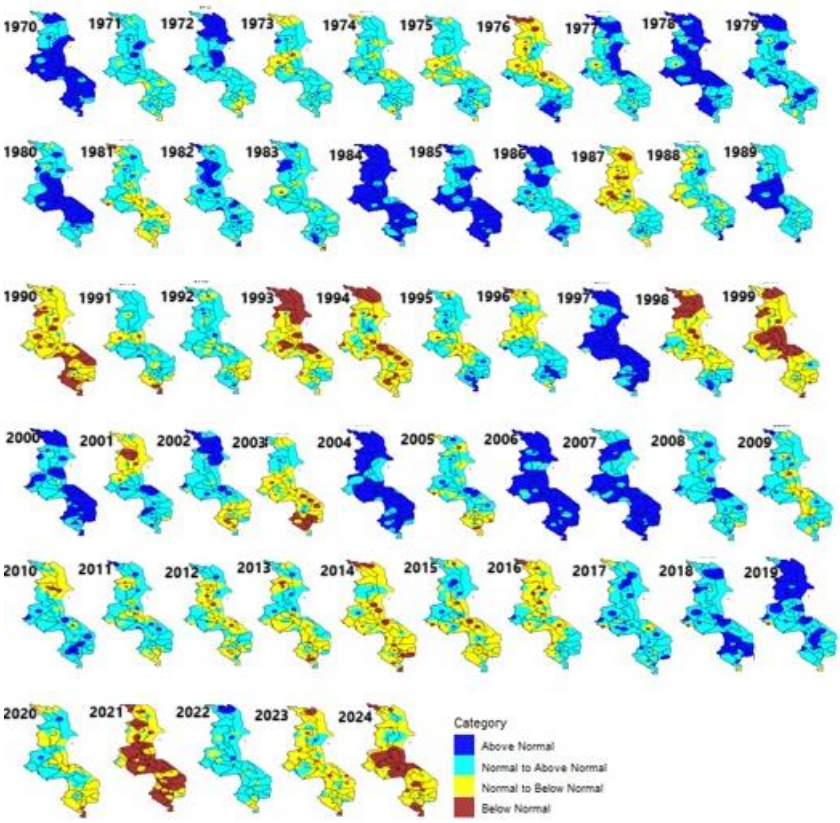

Figure 2 October-November-December (OND) rainfall from 1970 to 2024

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Comparison of October-November-December temperature anomaly from 1970 to 2024

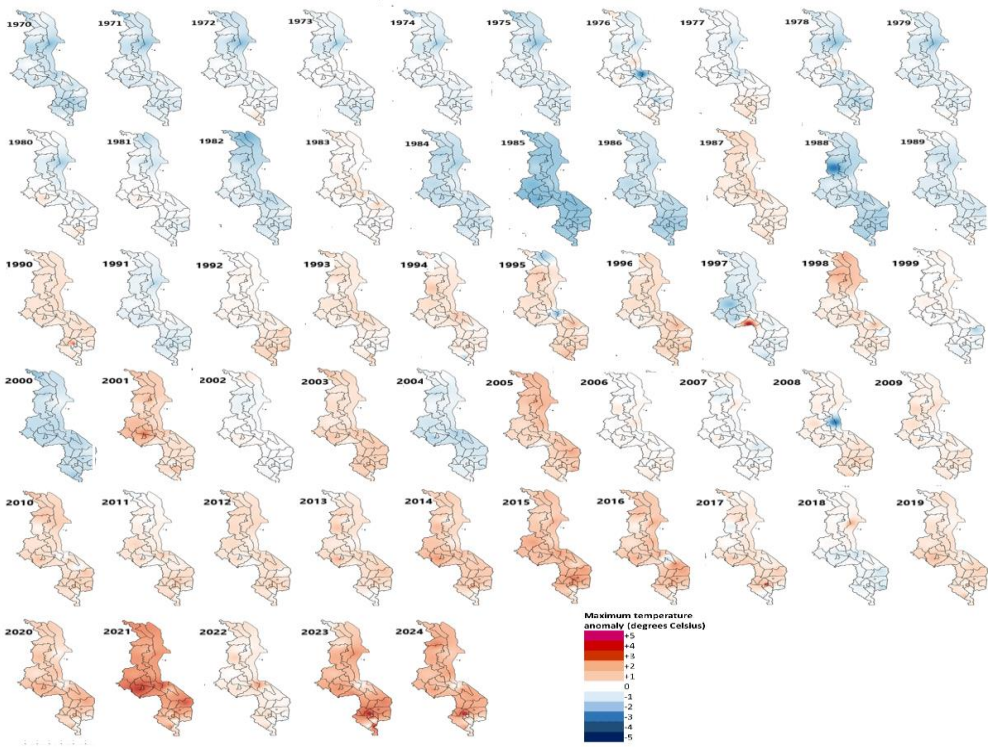
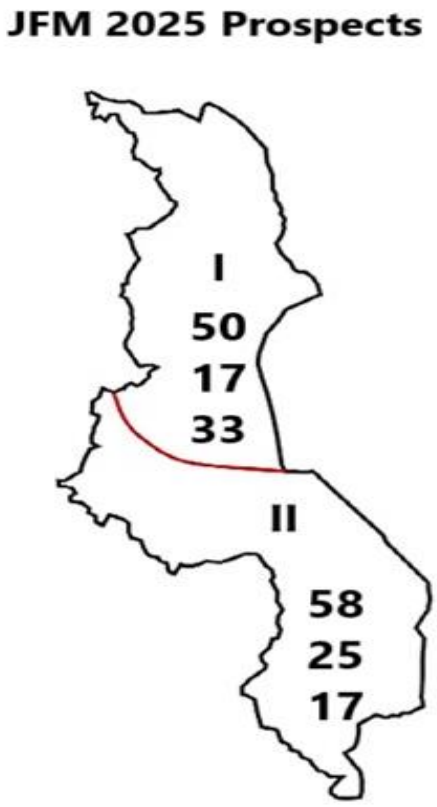


Figure 3 October-November-December (OND) temperature anomaly from 1970 to 2024

Probabilistic forecast for January-February-March 2025 sub-season



Malawi is divided into two regions, and the accompanying numbers represent probabilistic climate forecasts. Specifically, the top number indicates the probability of above-normal conditions, the middle number indicates the probability of normal conditions, and the bottom number indicates the probability of below-normal conditions.

The most likely rainfall scenario for northern Malawi during January, February, and March (JFM) is above-normal, with a 50% probability. There's a 33% chance of below-normal rainfall and a 17% chance of normal rainfall.

Southern Malawi is most likely to experience above-normal rainfall during the January-February-March (JFM) season, with a 58% probability. There's a 25% chance of normal rainfall and a 17% chance of below-normal rainfall.

Figure 4 January-February-March (JFM) 2025 sub-season rainfall forecast.

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