

PRESS RELEASE



Ministry of Forestry and Natural Resources DEPARTMENT OF CLIMATE CHANGE AND METEOROLOGICAL SERVICES

PROSPECTS FOR THE 2021/2022 RAINFALL SEASON IN MALAWI

BOTTOM LINE: Generally, normal to above-normal rainfall amounts are expected over most parts of Malawi

The period October to April is the main rainfall season over Malawi. October therefore marks the beginning of the official monitoring of rainfall season in the country. Total rainfall amounts range from 500 to 3000mm per year. The main rains are experienced mainly from November starting from the south and progressively spreading to central and northern areas. However, pre-season rains locally known as *Chizimalupsya* are experienced at the beginning of the season which sometimes merges with main rains.

During any rainfall season, the main rain bearing systems that influence rainfall over Malawi include the Inter-tropical convergence zone, Congo air mass, easterly waves and tropical cyclones. Key driving factors of the rain bearing systems over Malawi include mean sea level pressure, upper level winds and sea surface temperatures over the Pacific, Indian and Atlantic tropical Oceans.

Global models are projecting a weak *La Nina* conditions during the 2021/2022 rainfall season. *La Nina* phenomenon is unusual cooling of waters over the Eastern Central Equatorial Pacific Ocean which are known to bring more rains over Southern Africa including Malawi. Past rainfall seasons that experienced *La Nina* conditions similar to that projected for 2021/2022 season are: 1996/97, 2000/01, 2008/09, 2011/12 and 2017/18. Climate analyses on these past *La Nina* years show that the country had normal onset, progression and cessation of rains, with generally normal to above-normal total rainfall amounts.

The analyses and forecasts from climate experts in Malawi, with additional inputs from Southern African region's climate experts meeting that preceded the 25th Southern Africa Regional Climate Outlook Forum held virtually from 16th to 31th August 2021, indicate that:

- **During the period October to December 2021, normal to above-normal total rainfall amounts are expected in most areas across the country, with some pockets of normal to below-normal total rainfall amounts over southern areas**
- **During the period January to March 2022, normal to above-normal total rainfall amounts are expected over most areas across the country, with some pockets of normal to below-normal total rainfall amounts expected over northern areas**

The forecast implies that during the 2021/2022 rainfall season, there is a high chance of many parts of the country receiving good rainfall amounts. However, extreme weather events such as heavy rains leading to floods are likely to occur in prone areas while some parts of the country may experience pockets of prolonged dry spells during the season.

It should be noted that the forecast is relevant for relatively large areas and seasonal time scales and therefore may not fully account for all factors that influence localized climate variability, such as daily, weekly and month to month variations. To account for local factors, downscaled district forecasts have been produced and in addition, seasonal updates, ten-day agro-meteorological bulletins, weekly forecasts, five-day and daily forecasts will be continuously issued. Warnings and advisories on extreme weather events including tropical cyclones will be issued during the season.

Users from the agricultural sector are encouraged to seek advice from the Ministry of Agriculture when applying this forecast in decision making such as when to plant.

For further information and interpretation of this seasonal forecast, users are advised to 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

Below are the model output maps for the 2021/2022 rainfall outlook which covers the period October to December (OND) 2021 and January to March (JFM) 2022 in the form of probabilities of rainfall amounts:

The top number indicates the probability of rainfall amounts being in the above-normal category, the middle number is for normal and the bottom number is for below-normal.

In Map A below, OND 2021, the greater part of Malawi has 35% probability of rainfall amounts occurring in the above-normal category; a 40% probability in the normal category; and a 25% probability in the below-normal category, implying normal to above-normal total rainfall amounts with some southern areas expected to have normal to below-normal (25% above-normal, 40% normal and 35% below-normal) total rainfall amounts.

In Map B below, JFM 2022 the greater part of Malawi has 35% probability of rainfall amounts occurring in the above-normal category; a 40% probability in the normal category; and a 25% probability in the below-normal category, implying normal to above-normal total rainfall amounts with some northern areas expected to have normal to below-normal (25% above-normal, 40% normal and 35% below-normal) total rainfall amounts. Pockets of above-normal rainfall amounts are expected over some central and southern areas (40% above-normal, 35% normal and 25% below-normal).

MAP A: MALAWI OND 2021

MAP B: MALAWI JFM 2022

