

PRESS RELEASE



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

PROSPECTS FOR THE 2020/2021 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 500mm to 3000mm. 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 (ITCZ), 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 currently projecting weak *La Nina* conditions during the 2020/2021 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 were affected by *La Nina* conditions similar to the 2020/2021 season are: 1983/1984, 1995/1996, 2005/2006 and 2017/2018. Climate analyses on the past *La Nina* years show that the country had normal onset, progression and cessation of rains.

The analyses and forecasts from climate experts in Malawi, with additional inputs from climate experts meeting and 24th Southern Africa Regional Climate Outlook Forum hosted virtually by SADC Climate Services Centre from 10th to 28th August 2020, indicate that:

- **During October to December 2020, most of the southern and central areas are expected to receive normal to above-normal rainfall amounts while most of the northern areas are expected to receive normal to below-normal rainfall amounts**
- **During January to March 2021, most areas in the south, center and the north are expected to receive normal to above-normal rainfall amounts. However, pockets of dry conditions are expected mostly over south and centre.**

The forecast implies that during the 2020/2021 rainfall season, there is high chance of many parts of the country receiving good rainfall. However, since *La Nina* conditions are established, extreme weather events such as floods in prone area are like to occur due to heavy rains while some parts of the country are likely to 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, the Department of Climate Change and Meteorological Services (DCCMS) has produced downscaled district forecasts. In addition, DCCMS will continuously issuing seasonal updates, ten-day agro-meteorological bulletins, weekly forecasts, five-day and daily forecasts. The department will continue to monitor and issue advisories on the development and movement of the tropical cyclones.

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.

Below are the model output maps for the 2020/2021 rainfall outlook which covers the period October to December (OND) 2020 and January to March (JFM) 2021 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 2020 in region I, there is a 25% probability of rainfall amounts occurring in the above-normal category; a 40% probability in the normal category; and a 35% probability in the below-normal category while in region II OND 2020, there is a 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.

In Map B below, JFM 2021 in region I and region II, there is a 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

