Zimbabwe Seasonal Monitor

JANUARY 2025

ZIMBABWE METEOROLOGICAL SERVICES DEPARTMENT

http://www.msd.org.zw/

Highlights

- In the first three months of the season, most areas experienced normal to below-normal rainfall, as anticipated during the August 2024 Climate Experts Meeting by the Meteorological Services Department. The southern parts of the country—Matabeleland South, Bulawayo Metropolitan, Masvingo, and the southern parts of Manicaland—received slightly above-average rainfall.
- Most precipitation occurred in November and the final ten days of December 2024. However, the dry spell in December negatively impacted the crops planted in November, leading to moisture stress. Some crops struggled to survive the prolonged drought and failed to establish properly. The rain in the last ten days of December provided much-needed relief for many farmers, but those whose crops had failed had to begin replanting.

1. Latest rainfall: Early January

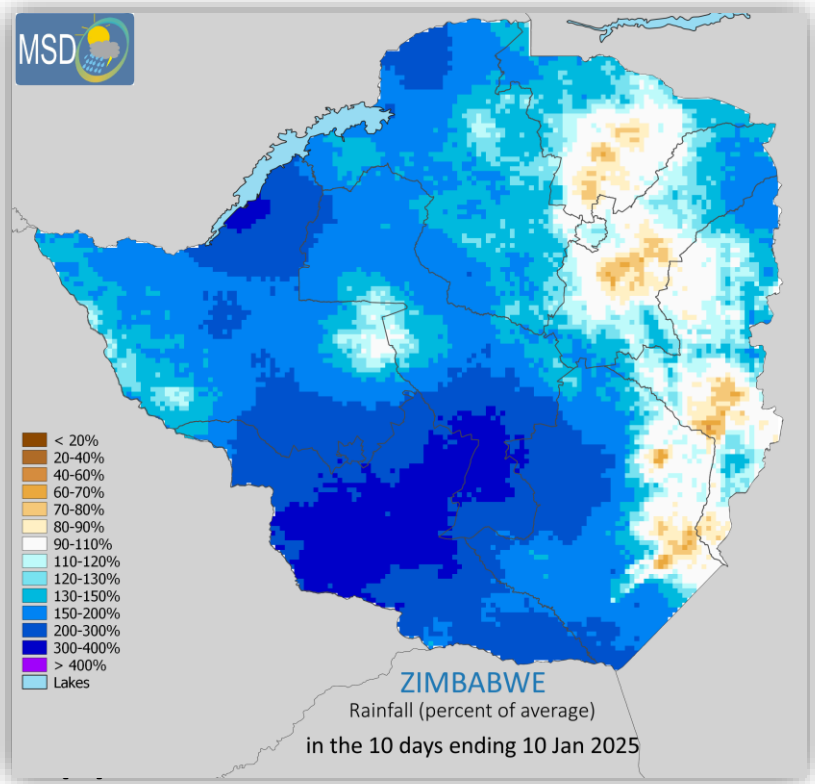


Fig 1(a) *Rainfall as percentage of average in the 10 days ending 10 January 2025, brown shades below normal rainfall and blue means above normal*

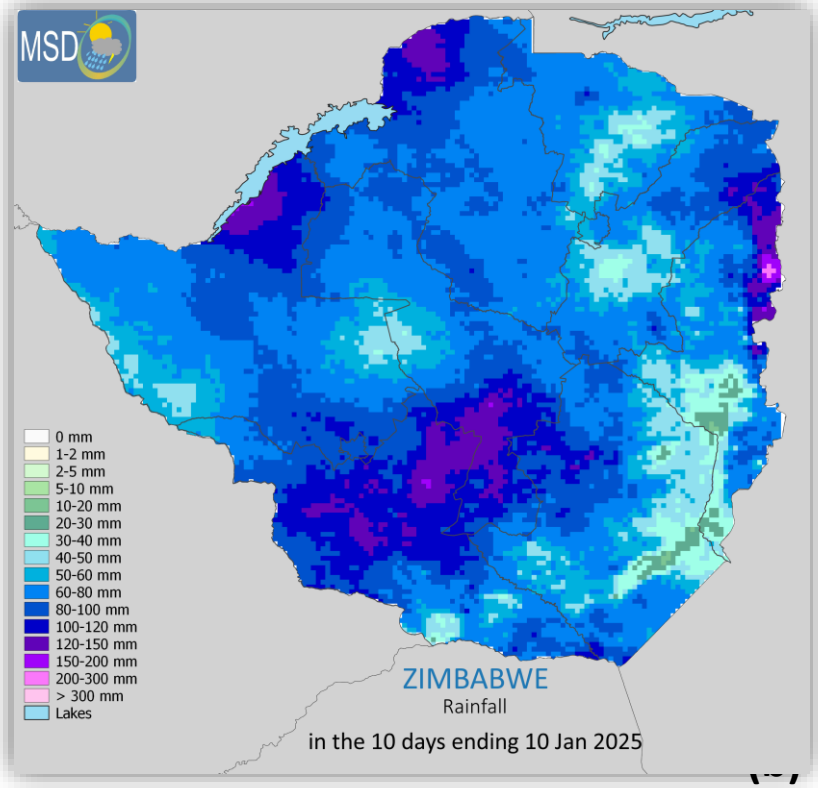


Fig 1(b) *Rainfall amounts in the 10 days ending 10 January 2025. Lowest values shown by white and highest shown by pink colour.*

Fig 1(a) shows that near-average to above-average rainfall was recorded across the country during the ten days ending 10 January 2025. The eastern side received slightly lower than average rainfall anomalies. This was due to the effects of the high-pressure systems that persisted over Mozambique.

Higher rainfall amounts were recorded over Matabeleland South, some parts of Midlands, Matabeleland North, Mashonaland Central, and extreme eastern parts of Manicaland provinces. These places have rainfall accumulation of above 120mm. However, the bulk of the country received rainfall totals between 50mm and 100mm as shown in Fig 1b.

2. The season so far: October-November-December 2024

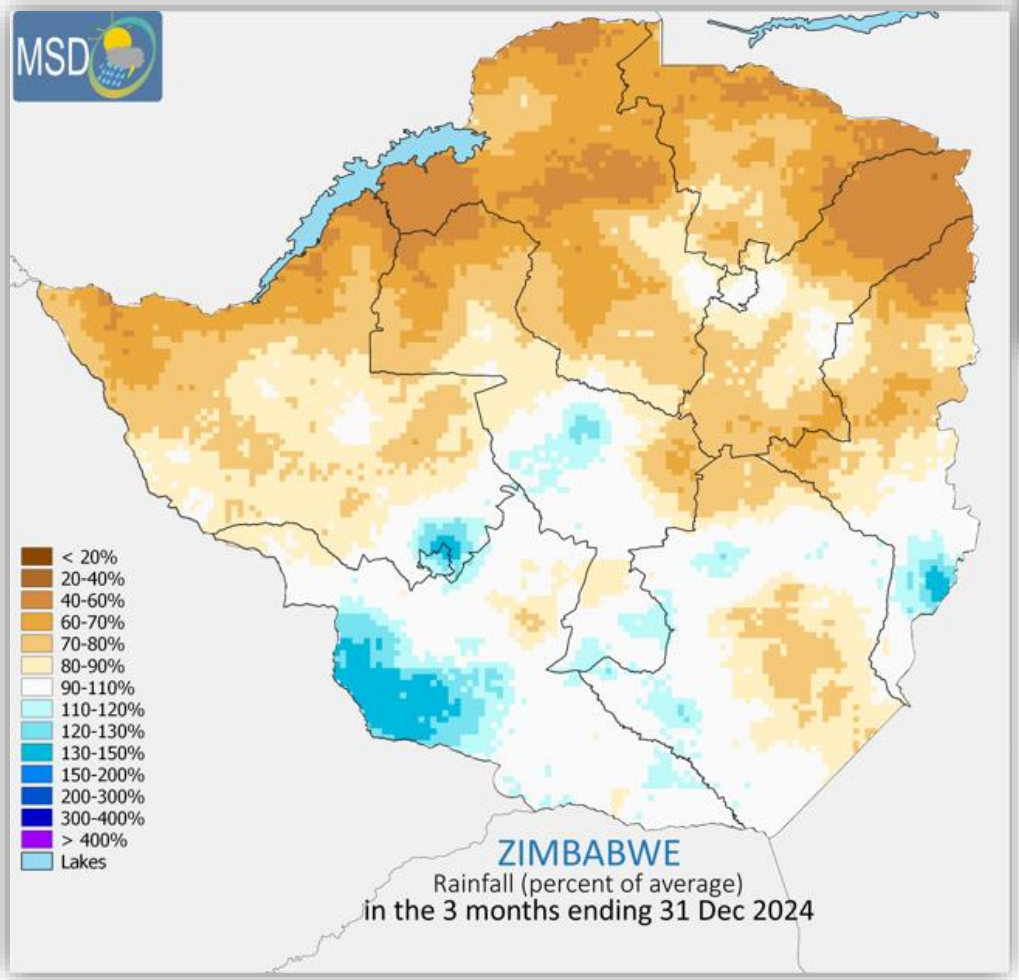


Fig 2:(a) *October-December 2024* ***rainfall*** *Percentage of average. Brown means below average, blue means above average.*

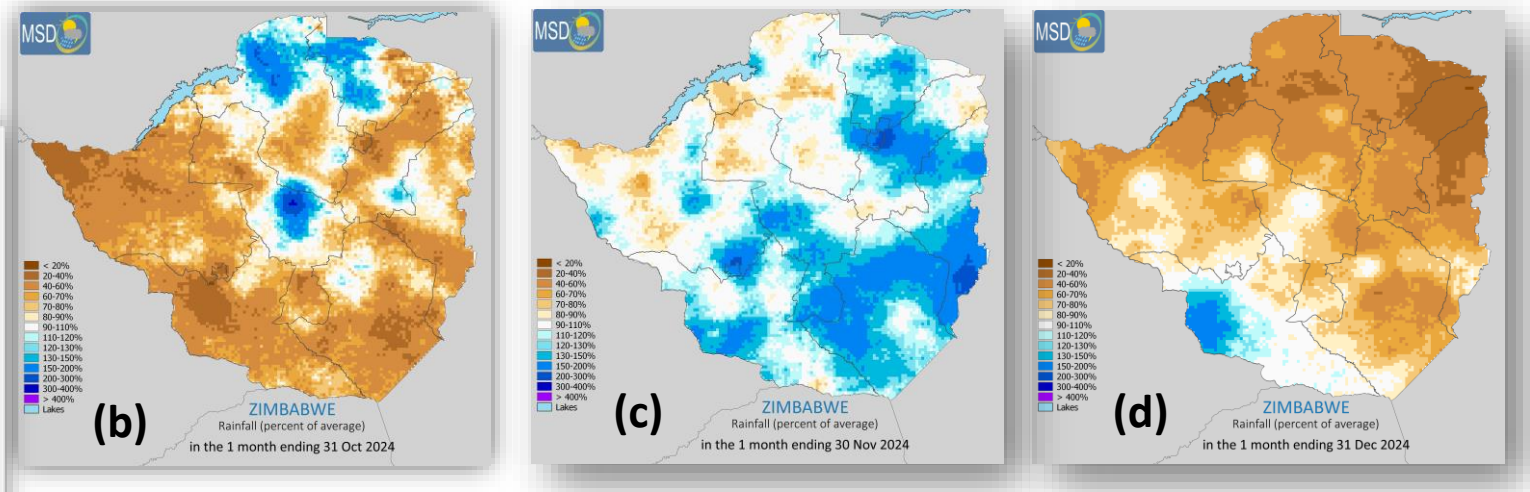


Fig 2: *1 month ending* ***(b) 31 October (c) 30 November, (d) 31 December 2024 Rainfall*** *Percentage of average. Brown means below average, blue means above average.*

Fig 2 shows the rainfall received as a percentage of the average. October was significantly drier than normal in most parts of the country as indicated by the brown colour in Fig 2b. There was an improvement during November. Fig 2c shows that normal to above normal rainfall was received in many places during November as indicated by white to blue colour. December 2024 did not receive much rain as compared to its long-term average. It started with a prolonged dry spell that stretched until the end of the second ten days of the month. Overall, the October to December period received below-average rainfall across the country except for a few places in the southern parts Fig 2a. The overall performance of the season's first three months agrees with the forecast for the same period. It was forecast to be normal to below normal during the October-November-December sub-season.

3. Latest rainfall: October-November-December 2024

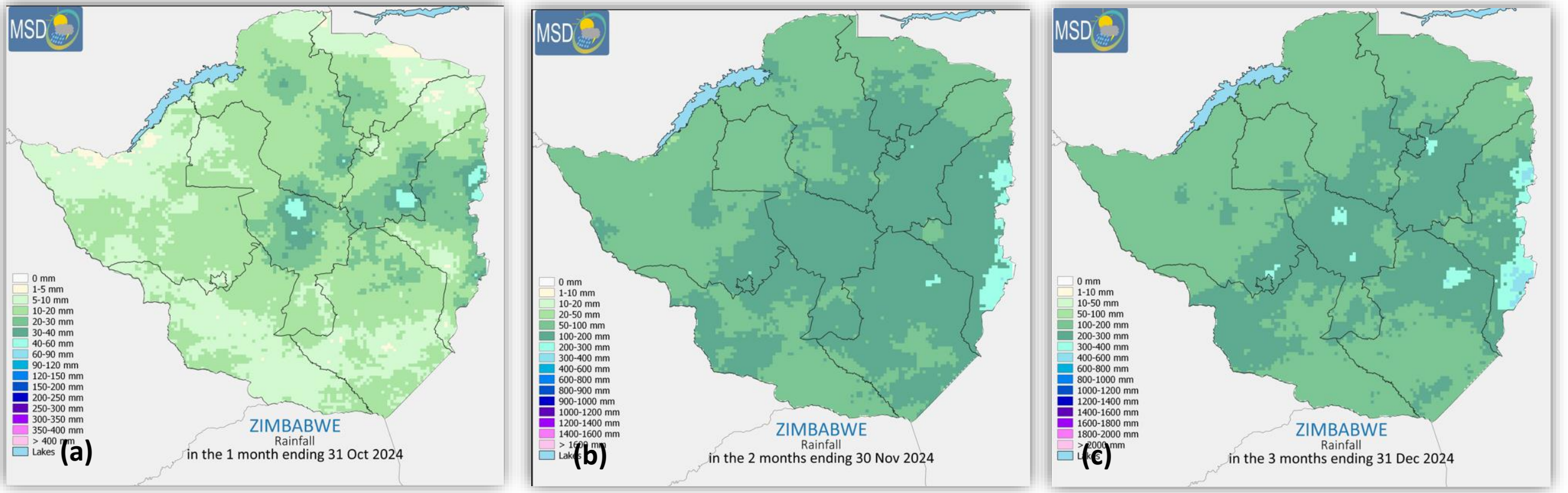
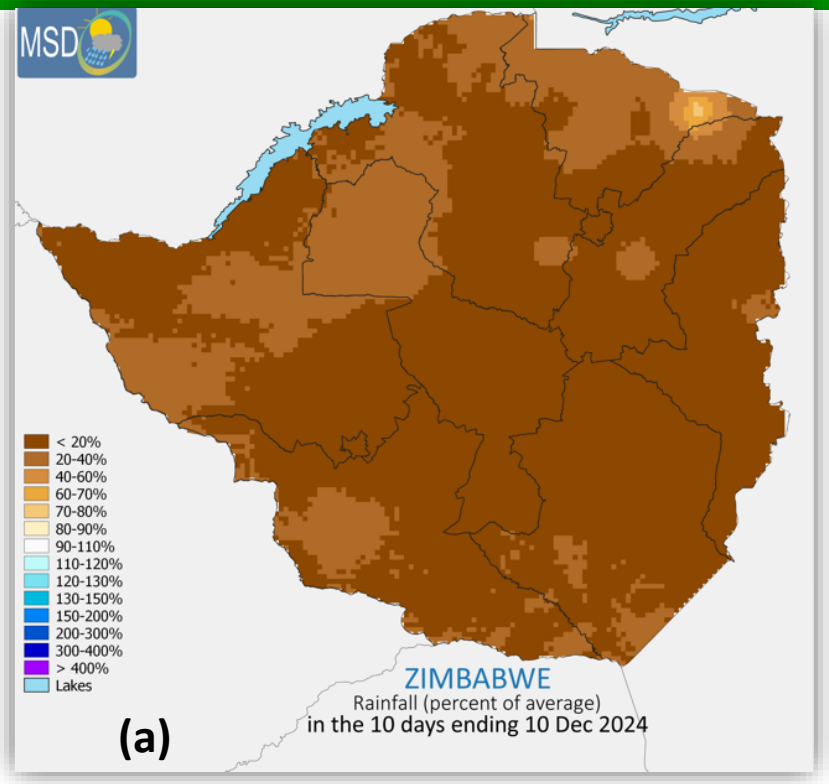
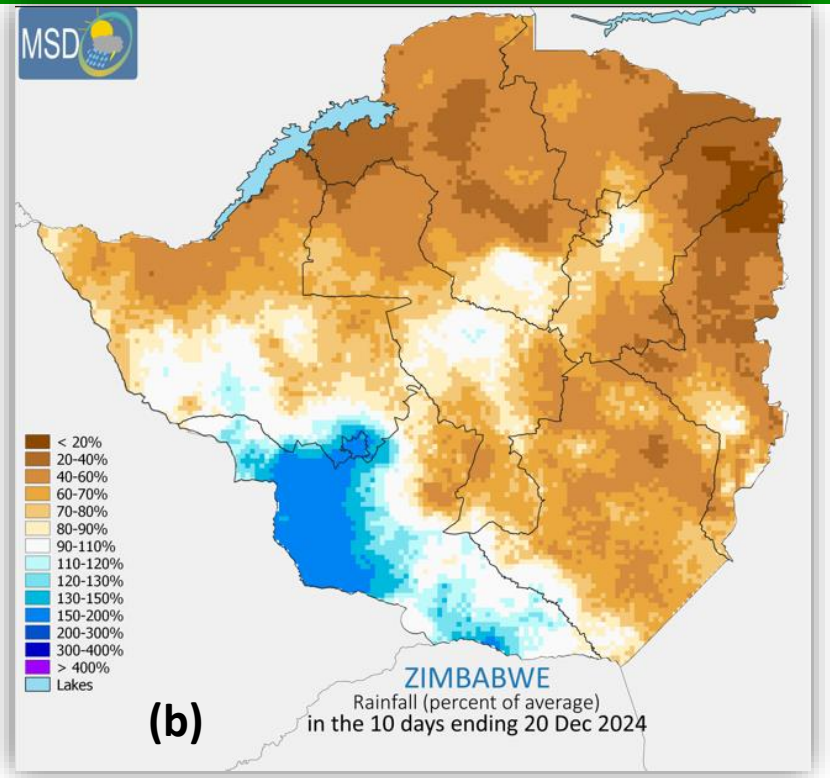


Fig 3 *Rainfall total in (a)1 month ending 31 October 2024* ***(b)*** *2 months ending 30 November 2024 (**c**) 3 months ending 31 December 2024.*

Rainfall accumulation for the first three months of the season, October-November-December, is indicated in Fig 3 above. Most places received rainfall accumulation ranging from 100mm to 300mm except for those areas in the extreme eastern parts of the country that received rainfall slightly above 300mm in total. Much of the rainfall that contributed to these totals was received in November 2024 and the last ten days of December 2024. However, in terms of spatial distribution, the central to the eastern parts of the country received the highest amounts. The main cloud systems that caused rainfall that was received during this first part of the season were westerly cloud bands and the ITCZ (Intertropical Convergence Zone) that set in late December 2024. It contributed much to the rainfall received mainly in the northern parts of the country.

4. Latest rainfall Anomaly: December 2024





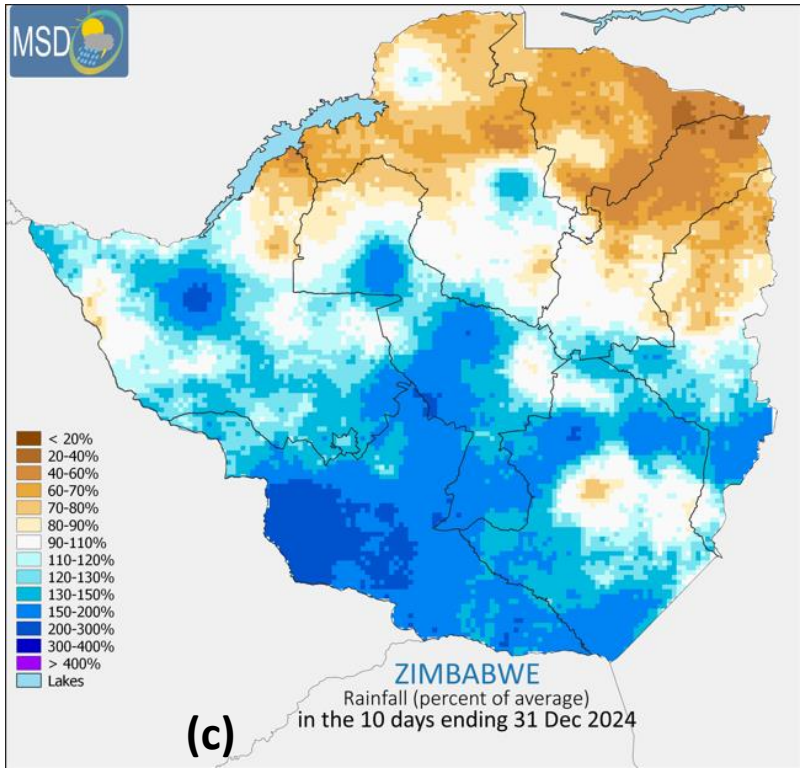


Fig 4 Rainfall percentage of average in the 10 days ending (a) 10 December 2024 (b) 20 December, (c) 31 December 2024. Brown is below average and blue means above average

Very dry conditions were experienced in the first 20 days of December 2024 across the country. This was caused by the upper high pressure systems that were quasi-stationary over the country suppressing the formation of clouds. This also resulted in high daytime temperatures that were experienced over the country. During the last ten days of the month, a series of westerly cloud bands and the coming in of the ITCZ led to increased wet conditions that occurred until the end of the month. Although a significant amount of rainfall was received during this period, it was below average in the northern provinces Mashonaland provinces, and above-normal rainfall was received in the southern parts of the country. The December prolonged dry spell affected significantly the crops that were planted with the November rain that were already moisture-stressed.

4. Latest rainfall Total: December

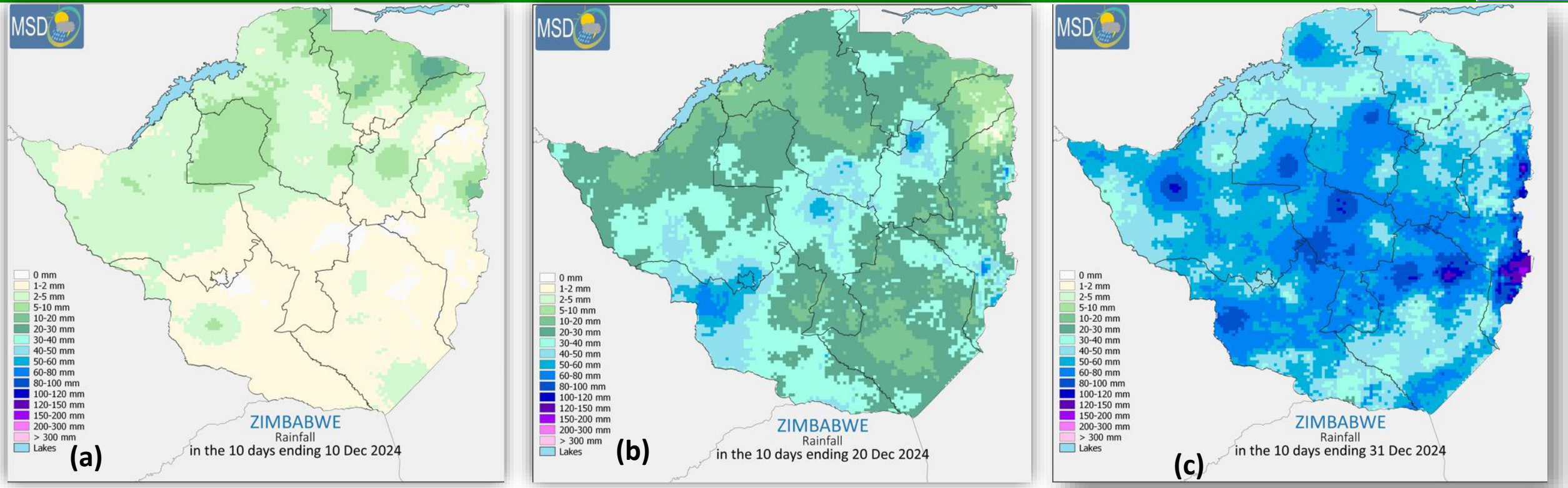


Fig 4 Rainfall amounts in the 10 days ending (a) 10 December 2024 (b) 20 December 2024, (c) 30 December 2024. White to pink represent rainfall from lowest to highest

Fig 4. shows the ten-day rainfall for the first, second, and last ten days of December 2024. The last ten days received the highest rainfall totals, followed by the second and the first received the least. The rainfall for the second ten days was mainly caused by the tropical depression Chido, which entered the country from the northern provinces and the westerly cloud bands that traversed from the west into the country. However, not much rainfall was received because both systems were weak when they came to Zimbabwe. Chido had already dumped a lot of its moisture in Mozambique and Malawi on its way to Zimbabwe. The cloud band was weak. However, these rains brought some relief to the planted crops.

5. Vegetation and Temperature

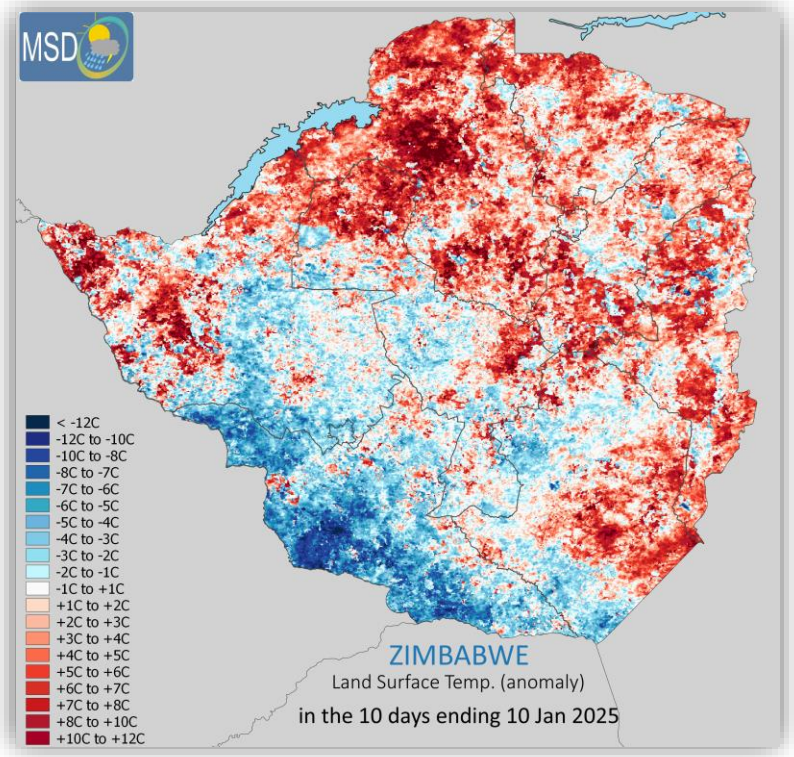


Fig 5 (a) *Land surface temperature as anomaly, by 10 January 2025. Red means hotter than normal and blue means cooler than normal*

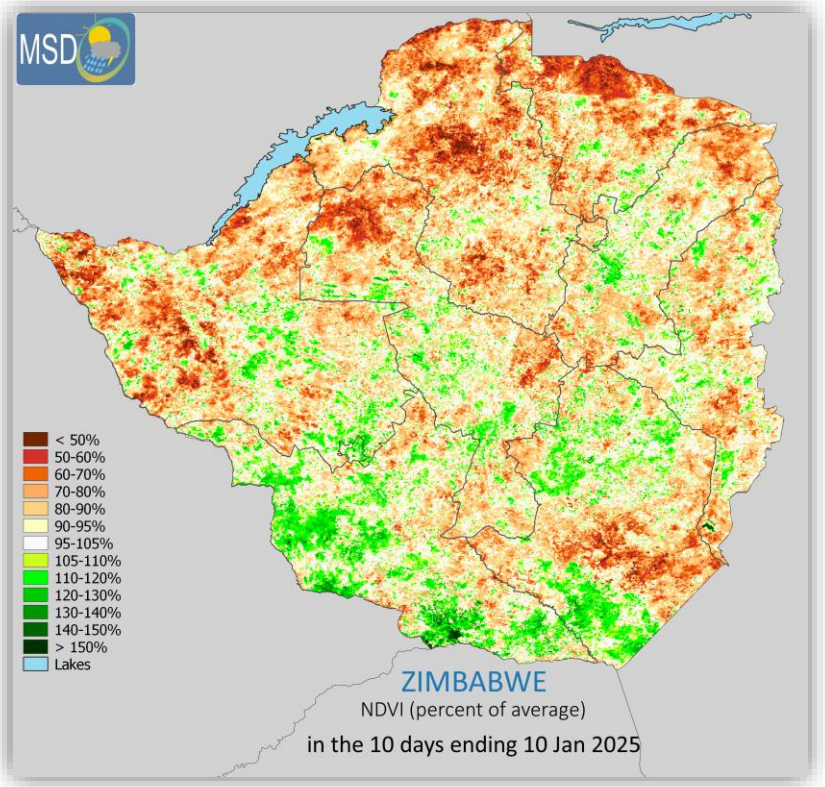


Fig 5 (b) *NDVI anomaly by 10 January 2025*

Fig 5a. The land surface temperatures shows that warmer than normal conditions were experienced in the northern and eastern parts of the country while the southwestern parts recorded cooler than normal temperatures, this has been attributed to more cloudy conditions in the southern parts of the country compared to the northern parts of the country. There was less cloud cover and moisture in the northern parts compared to the southern parts.

Fig 5b. Near average to slightly better than average vegetation conditions are being shown in the Matabeleland South, some parts of Masvingo, Matabeleland North, Midlands and Manicaland as indicted by green colour. Brown and red colour shows vegetation conditions below average. Although significant rainfall amount was received there is usually a delay in the response of vegetation to the received rainfall.

6. Short-Range Outlook: End of January 2025

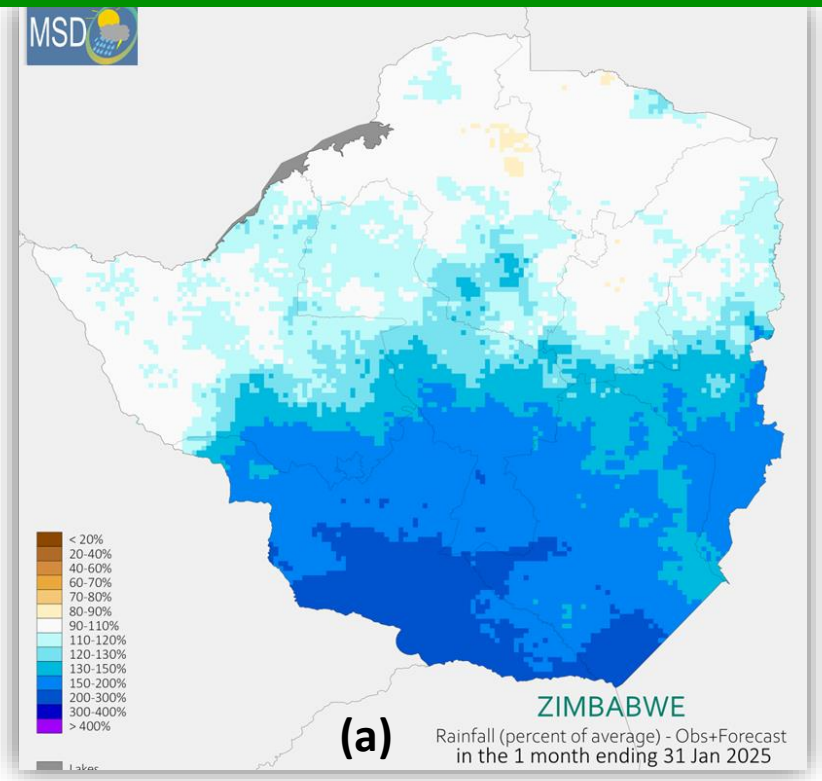


Fig 6 (a): *Rainfall percentage of average - Obs + Forecast in the month ending 31 January 2025, (brown means below average blue means above average)*

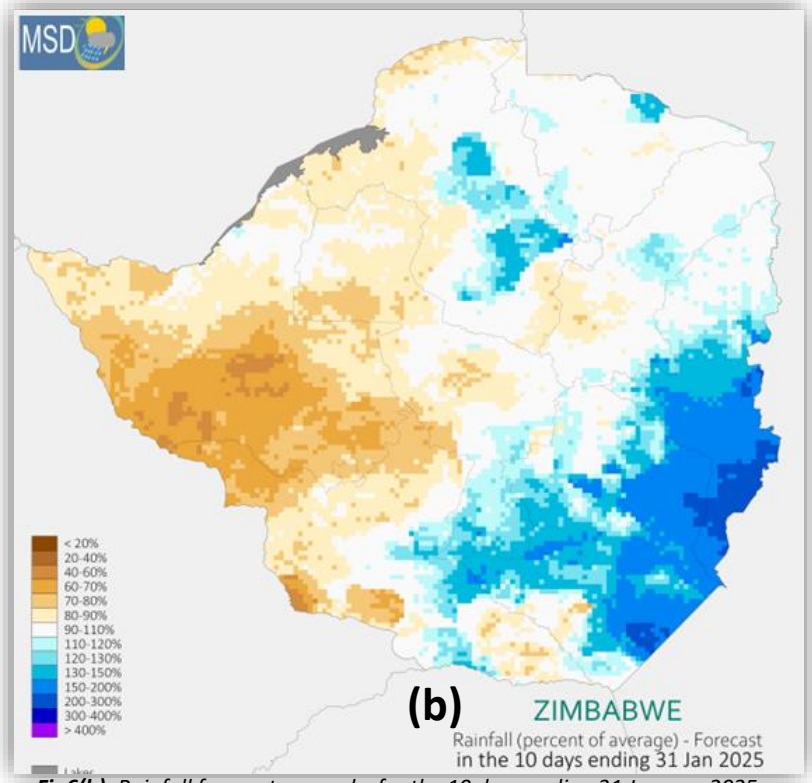
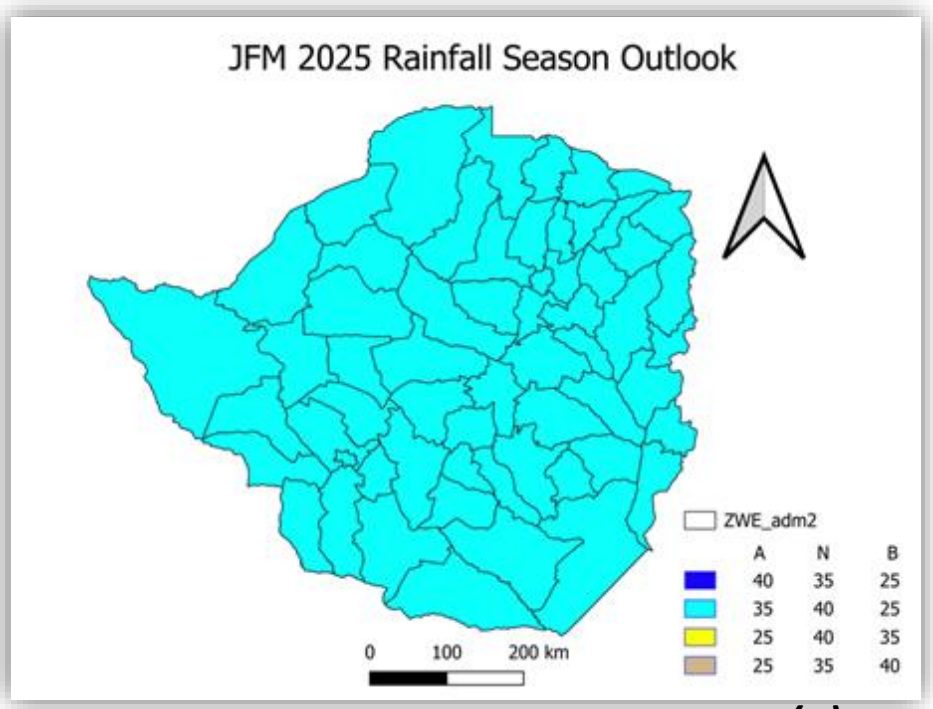


Fig6(b): *Rainfall forecast anomaly for the 10 days ending 31 January 2025. Browns = drier than average, blues = wetter than average*

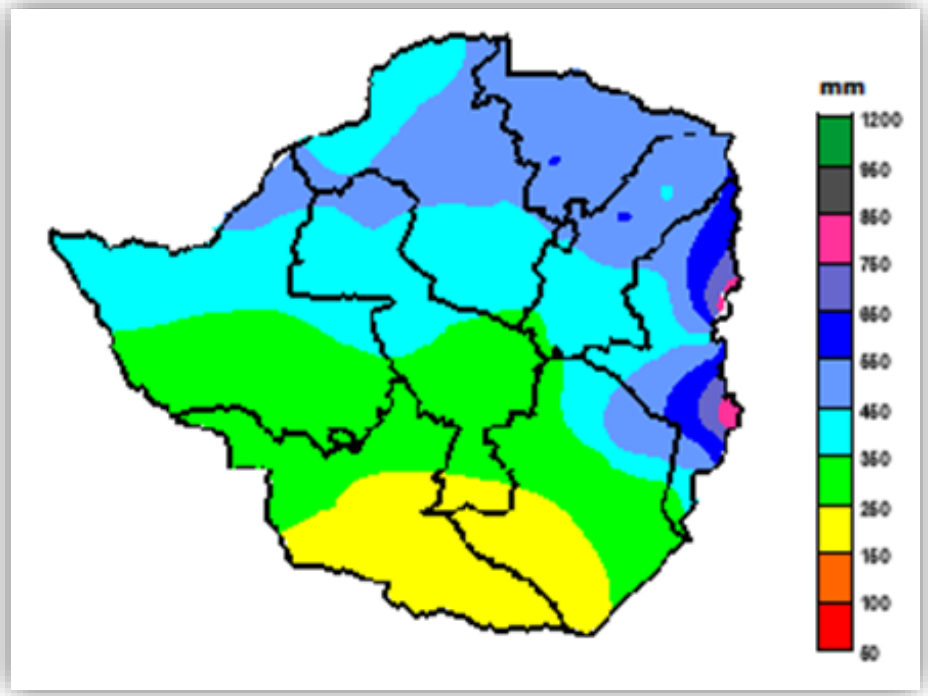
Map 6(a) shows the observed and the forecast rainfall for the month of January while map (b) indicates the forecast for the last ten days of January as a percentage of average. The month of January 2025 is expected to receive total rainfall anomaly that is above average Fig 6a. The northern parts are anticipated to receive near average rainfall amounts while the southern parts should record significantly higher than average conditions. The effects of the tropical cyclone Dikeledi caused reduced rainfall during the second dekad of the month in the northern parts of the country. The forecast for the last 10 days of January shows that the eastern parts of the country will receive normal to above normal rainfall. The western parts are anticipated to receive below normal rainfall during this forecast period.

6. Outlook: Long Range

Long Range (January-February-March)



(a)



(b)

Fig7a Probabilistic Forecast. b. Then long-term average rainfall

The fourth part of the season January-February-March is expected to be relatively wetter than the long-term average across the country. That is the expected rainfall accumulation for the three months of January to March should be more than the long-term rainfall average for the same period. Technically it should fall within the range 100-125 percent of the long-term average. Which is normal to above normal range. The long-term average is 30 years for each station across the country and that is considered the normal rainfall for that place. Map Fig 7(a) is the probabilistic forecast and Fig (b) is the long-term mean.

About the Seasonal Monitor

- This monthly bulletin is produced by the Zimbabwe Meteorological Services Department.
- Focus of the Bulletin: seasonal monitoring and early warning when necessary, highlighting areas of concern.
- World Food Program (WFP) assisting in the incorporation of satellite data to observations to address the concern of coverage of the area of interest.

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