Zimbabwe Seasonal Monitor

FEBRUARY 2025

ZIMBABWE METEOROLOGICAL SERVICES DEPARTMENT

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

Highlights

- The first three months of the 2024-2025 season experienced normal to below-normal rainfall, with most rainfall occurring in November and late December. The southern regions saw slightly above-average rainfall, while northern areas remained below average.
- Dry spells in October and early December led to moisture stress and crop failures, particularly for crops planted in November, necessitating some replanting efforts.
- January 2025 saw widespread above-average rainfall (185mm-315mm), supporting crop recovery, replenishing reservoirs, and reducing soil moisture deficits, driven by the ITCZ.
- Early February showed below-average rainfall in northern areas but more favourable conditions in the south due to a tropical depression.
- The forecast for February-April 2025 suggests wetter-than-average conditions, supporting agriculture but increasing localized flood risks.

1. Latest rainfall: Early February

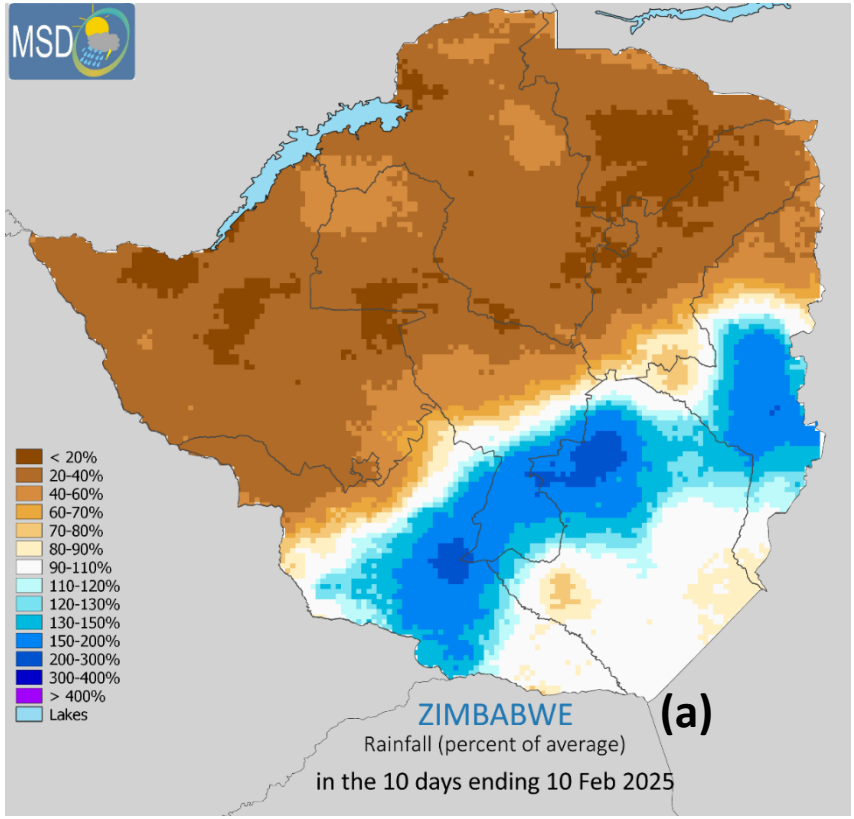


Fig 1(a) *Rainfall as percentage of average in the 10 days ending 10 February 2025, brown shades below normal rainfall and blue means above normal*

Fig 1(a) shows the rainfall anomaly for the first ten days of February 2025. The bulk of the country received rainfall below the long term average. The´most affected were Matabeleland North, Bulawayo Metropolitan, Midlands, all Mashonaland, and Harare Metropolitan Provinces. The southern parts experienced better conditions, average with a bias towards above average rainfall.

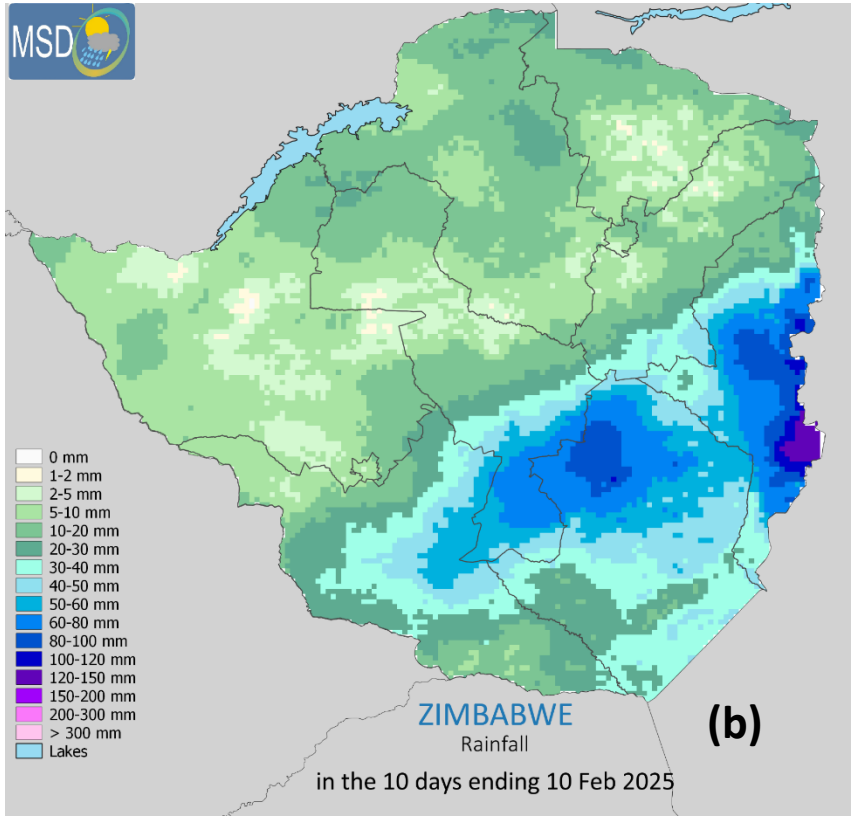
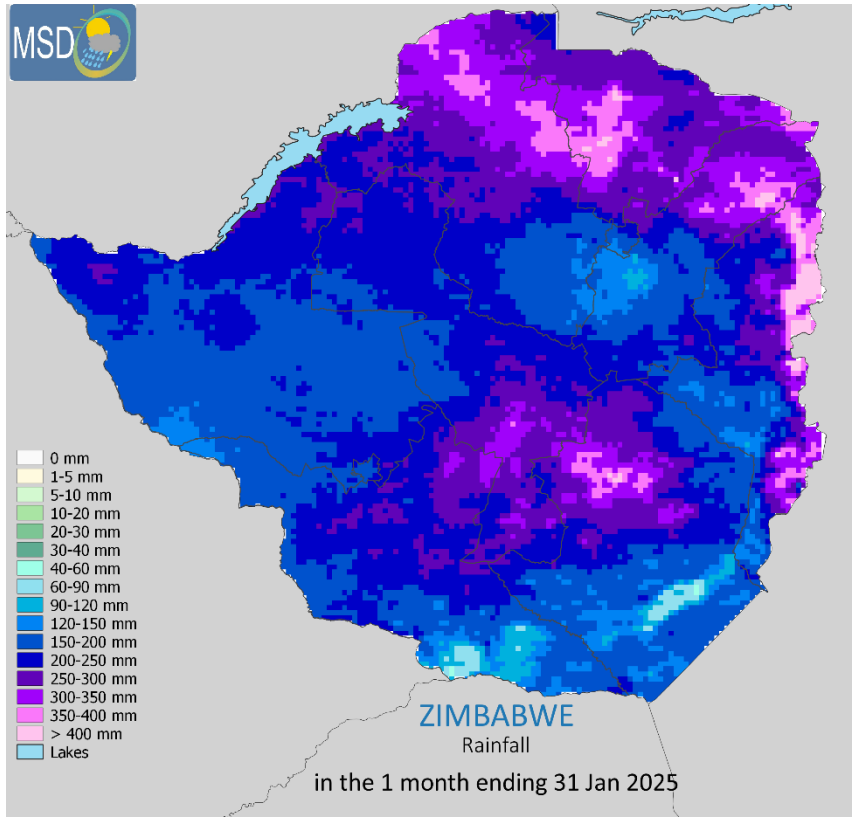


Fig 1(b) *Rainfall amounts in the 10 days ending 10 February 2025.*

The bulk of the country did not receive much rainfall during this dekad. Rainfall amounts were ranging 20-30mm in most places with exception of parts of Matabeleland South, Masvingo, southern parts of Midlands and Manicaland which received cumulative rainfall above 40mm period. This rainfall activity was attributed to the tropical depression that moved from the Mozambique channel, resulted in increased activity in the southern parts of the country whilst in the

2. January 2025



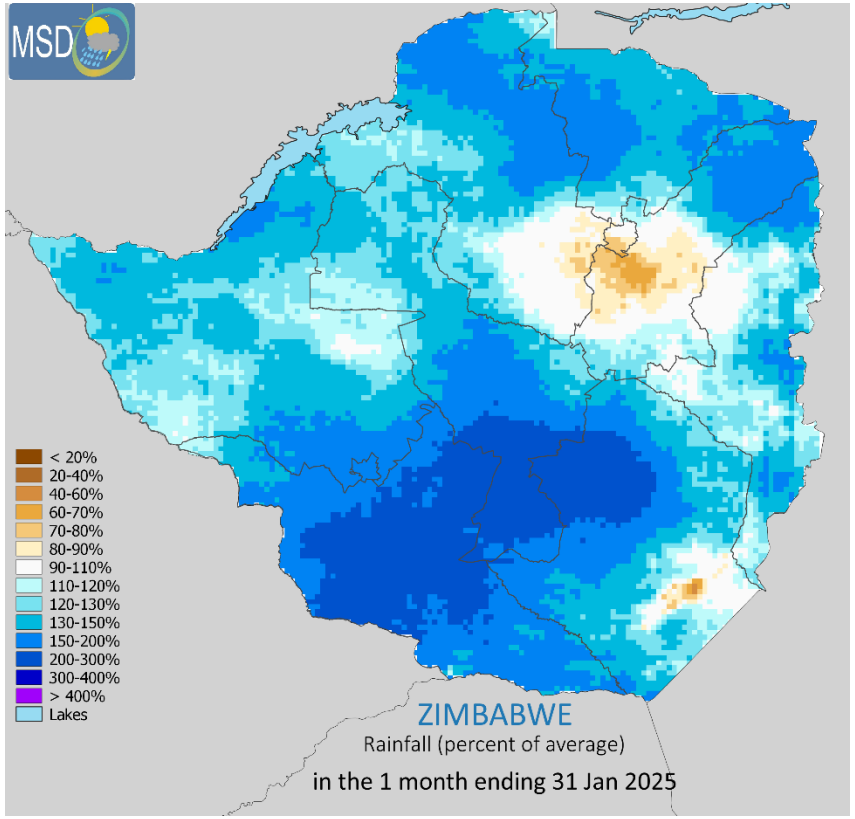
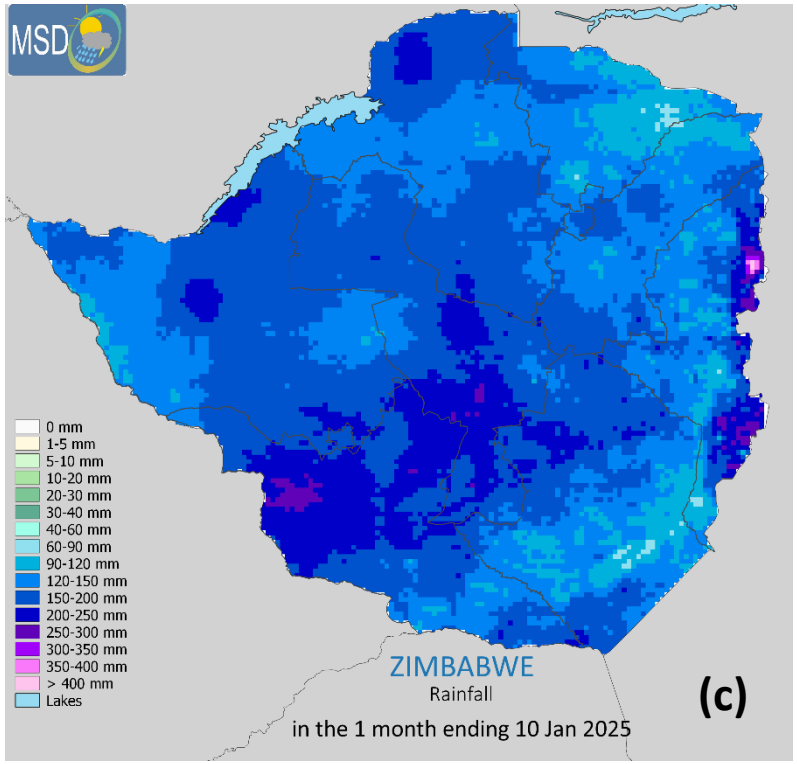
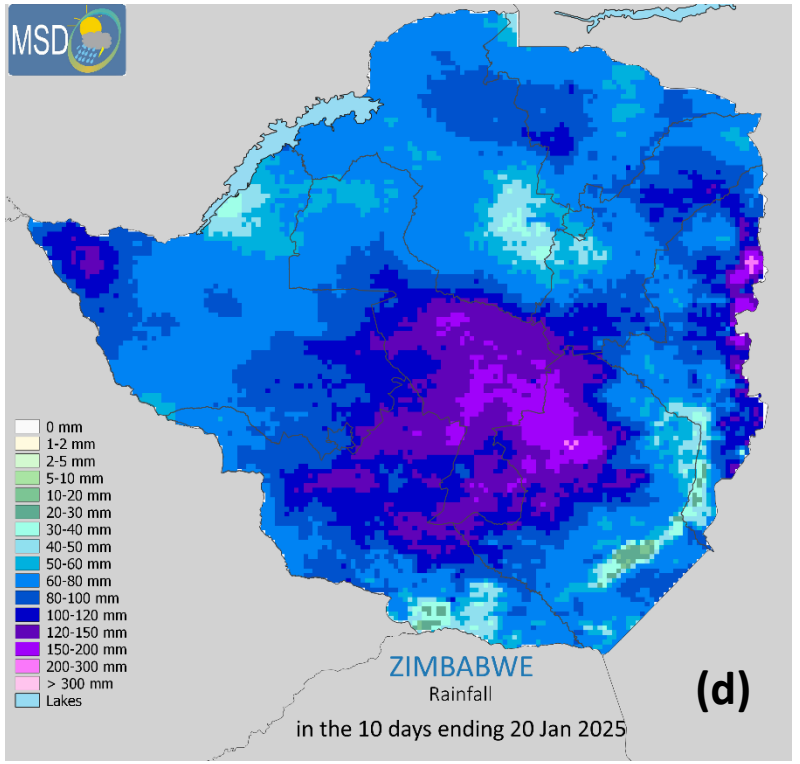


Fig2(a) *Rainfall amounts and* ***(b)*** *Rainfall as percentage of average I the month ending 31 Jan 2025. brown shades below normal rainfall and blue means above normal*

January 2025 was characterized by widespread and above-average rainfall across Zimbabwe, with most areas recording monthly totals ranging from 185mm to 315mm. This increased rainfall activity provided essential moisture for plants, alleviating soil moisture deficits and reducing the risk of widespread crop failures. The improved soil moisture conditions during this period created a critical window for crop recovery, supporting overall agricultural growth and productivity. Additionally, the above-average rainfall contributed to the replenishment of reservoirs, aquifers, and surface water bodies, ensuring improved water availability for both agricultural and domestic use. The primary system driving the rainfall in January was the Intertropical Convergence Zone (ITCZ), which brought sustained moisture across much of the country, promoting favourable conditions for crop growth and improved vegetation cover.

2. January 2025





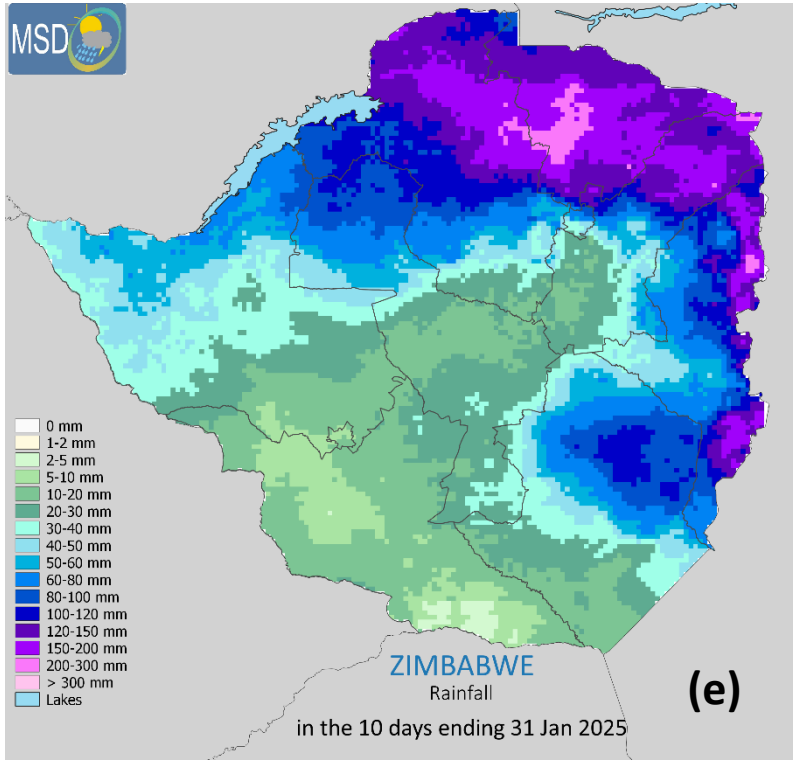


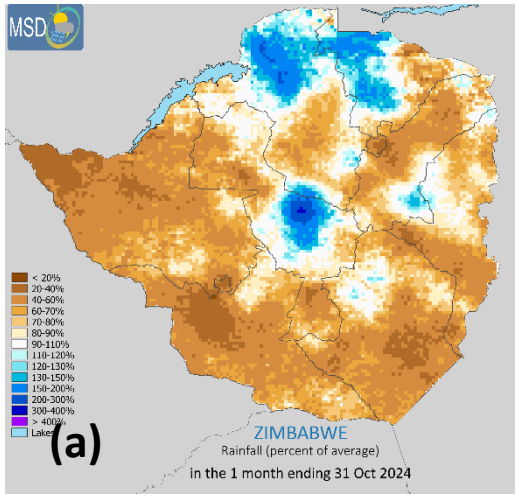
Fig 2(c) *Rainfall amounts in mm, for the 10 days ending 10 Jan 2025, (**d**) 20 Jan 2025, (**e**) 31 Jan 2025.*

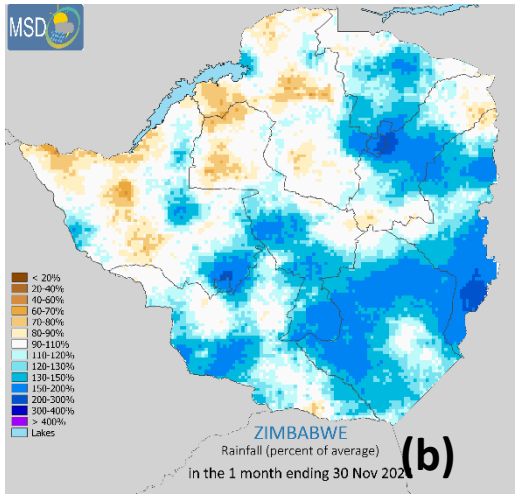
The month of January 2025 was characterized by wet conditions across much of Zimbabwe. During the first dekad of the month, most areas received rainfall in the range of 60mm and above (Fig 2c). The southeastern parts of the country, however, experienced slightly reduced rainfall, with accumulations below 60mm.

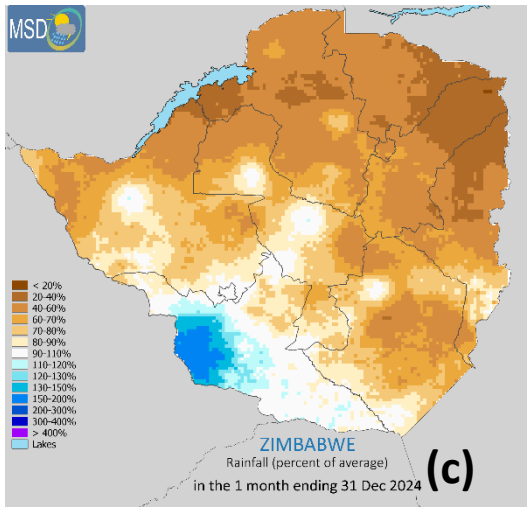
In the second dekad, rainfall activity intensified, with the bulk of the country recording rainfall amounts of 60mm and above, although there were still localized pockets where rainfall remained below 66mm (Fig 2d).

The final ten days of January were relatively less wet compared to the second dekad, with much of the country recording rainfall amounts below 77mm. However, the eastern and northern parts of Zimbabwe experienced higher rainfall accumulations above 77mm, as indicated by the blue shading on the map (Fig 2e).

3. Rainfall Perfomance: October-November-December 2024







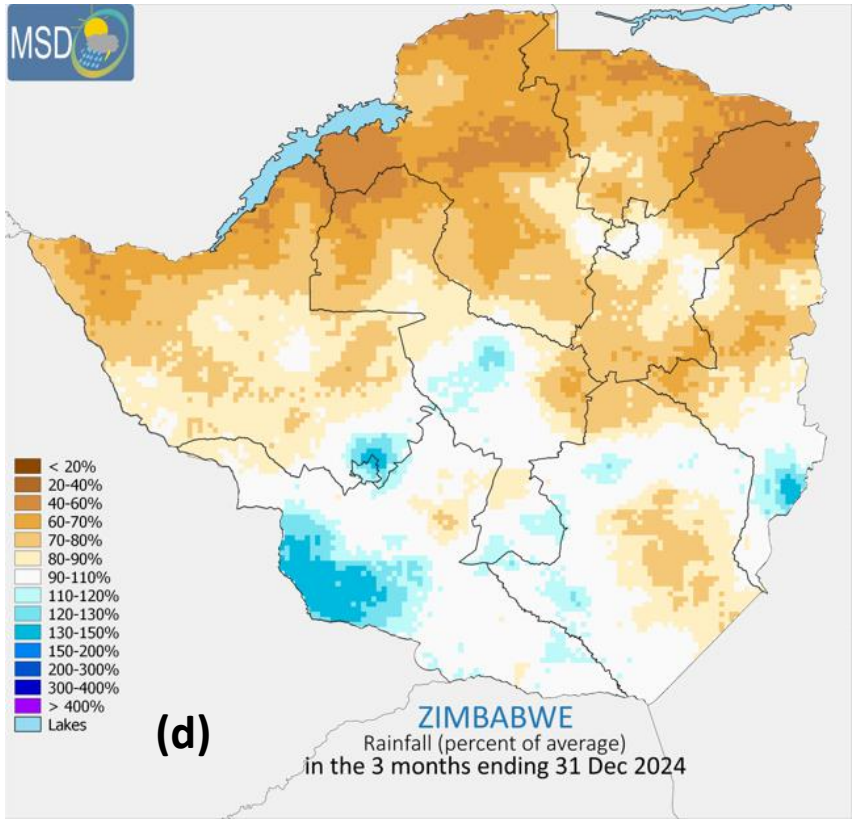


Fig 3a, *rainfall anomaly for October 2024,* ***(b)*** *November 2024,* ***(c)*** *December 2024,* ***(d)*** *three months ending 31 December 2024. Brown ndicates below average rainfall, blue above average rainfall .*

The start of the 2024-2025 rainfall season was significantly drier than normal across much of Zimbabwe. The majority of the country experienced below-average rainfall, leading to limited soil moisture during the early planting stage. This negatively impacted initial crop establishment, particularly in rain-fed agricultural regions.

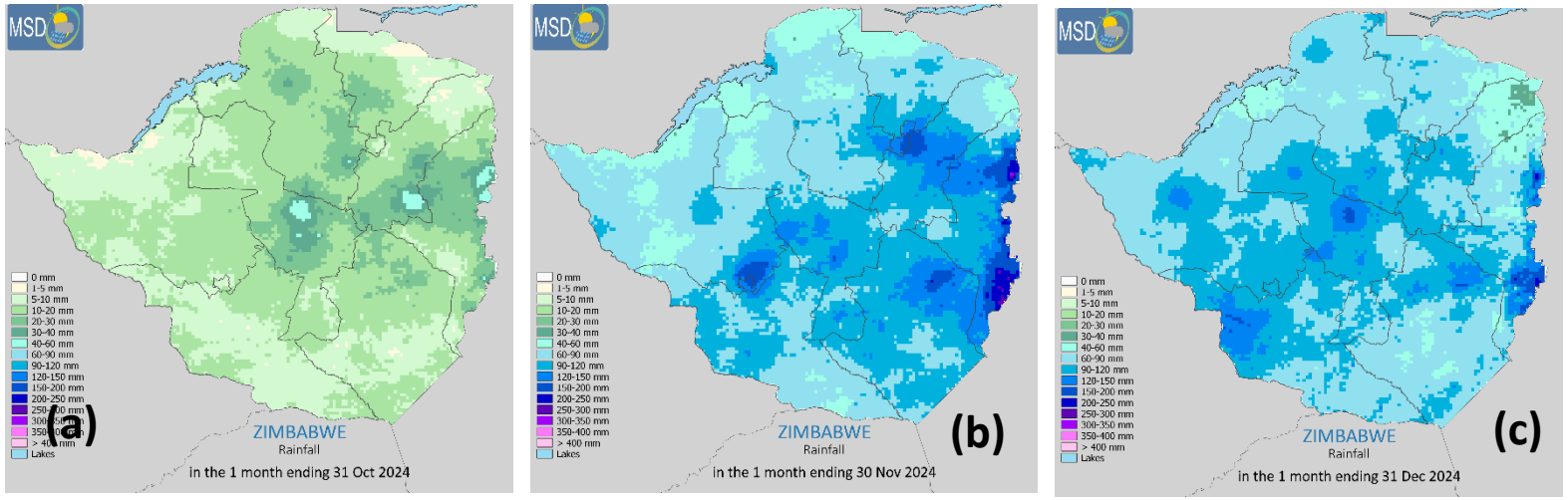
A marked improvement in rainfall conditions was observed during November, with many areas receiving normal to above-average rainfall. This provided critical moisture relief, supporting germination and early crop development. The increased rainfall was primarily driven by westerly cloud bands that moved across the country, helping to offset some of the early-season moisture deficits.

The country experienced a prolonged dry spell for most of December, with below-average rainfall in the northern provinces, including the Mashonalands and Midlands.

The arrival of the Intertropical Convergence Zone (ITCZ) in the last ten days of December brought a temporary increase in rainfall activity, particularly in the central and eastern regions.

However, this relief came too late for crops that were already under moisture stress, leading to crop failure in some areas and necessitating replanting efforts by farmers.

3. Rainfall Perfomance: October-November-December 2024



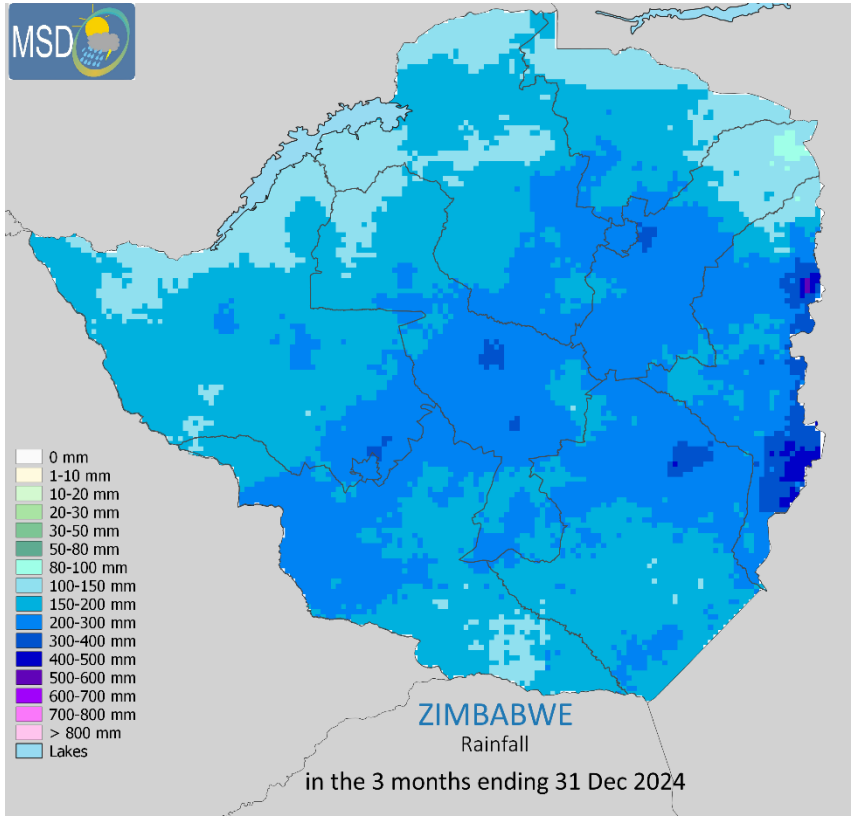
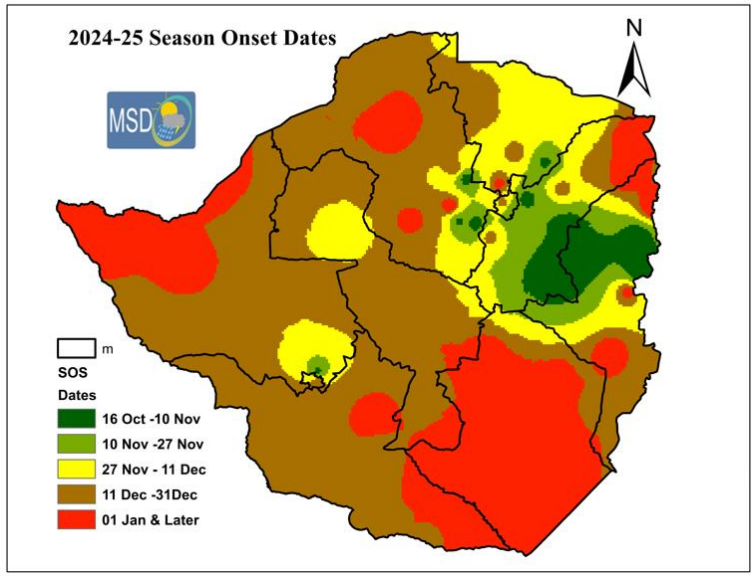


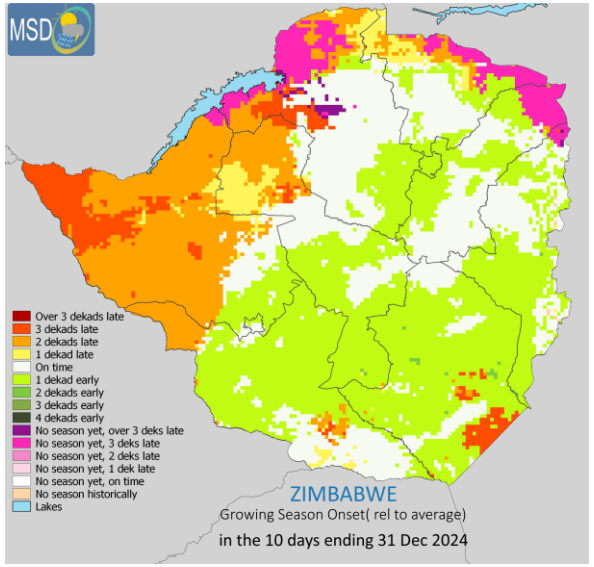
Fig 3(a) *Rainfall amounts in mm for the for October 2024, (**b**) November 2024, (**c**) December 2024, (**d**) three months ending 31 December 2024*

Rainfall accumulation for the first three months of the 2024-2025 rainfall season (October, November, and December) shows that most parts of Zimbabwe received rainfall ranging from 100mm to 300mm. The highest rainfall totals were recorded in the central and eastern parts of the country, with the extreme eastern areas receiving rainfall slightly above 300mm in total. Much of the rainfall that contributed to these totals was received in November 2024, as well as during the last ten days of December when the Intertropical Convergence Zone (ITCZ) became active. The westerly cloud bands and the late arrival of the ITCZ played a significant role in bringing moisture to the northern and eastern parts of the country. However, the early dry spells experienced in October and the prolonged dry period during the first half of December negatively impacted early crop establishment in many regions.

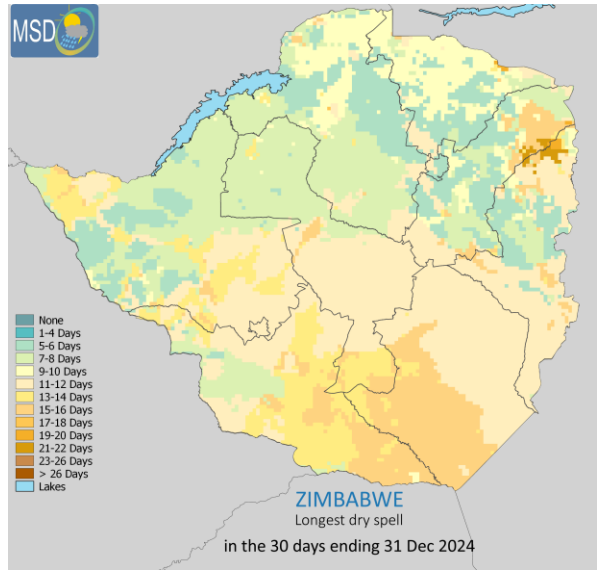
4. Onset of season: October-November-December 2024



(a)



(b)



(c)

Fig 4(a) *2024-25 Season onset Dates* ***(b)*** *Growing season Onset(relative to average) December 2024* ***(c)*** *Dry days in December 2024*

For most areas of the country, the season started between 11 Dec – 31 Dec 2024 as shown by the brown colour on Figure 4(a). Late start of season (01 Jan 2025 and later) was in Masvingo Province and other parts of the country (red colour). Parts of Manicaland, Harare Metropolitan and all Mashonaland Provinces had a very early onset of the season from 16 Oct – 10 Nov 2024 (dark green). Matabeleland North, Bulawayo Metropolitan and Midlands had areas that received effective rains 27 November to 11 December (yellow coloured regions).

In comparison to the long term average, most areas over the southern and eastern parts had an early start to the season of a dekad (Figure 4(b)). Matabeleland North, northern parts of Midlands and parts of Matabeleland South, there was a delay to the season onset by 2 – 3 dekads. The extreme northern area of the country as of 31 December had yet to meet the onset requirement. Those areas experienced a delay of 3 dekads to the start of the season as shown by the purple color on Figure 4(b) .

The northern provinces experienced shorter dry spells of less than 10 days with the exception of parts of Mashonaland East and Manicaland where dry spells of more than 26 days were observed (dark brown colour) (Figure 4(c)). The greater part of the southern provinces of the country had dry spells in the range 11 – 12 days with parts of Masvingo, Matabeleland South and southern parts of Midlands having above 15 days. Crop condition is likely to have been affected where the dry spells were longer.

5. Vegetation and Temperature : February Dekad 1

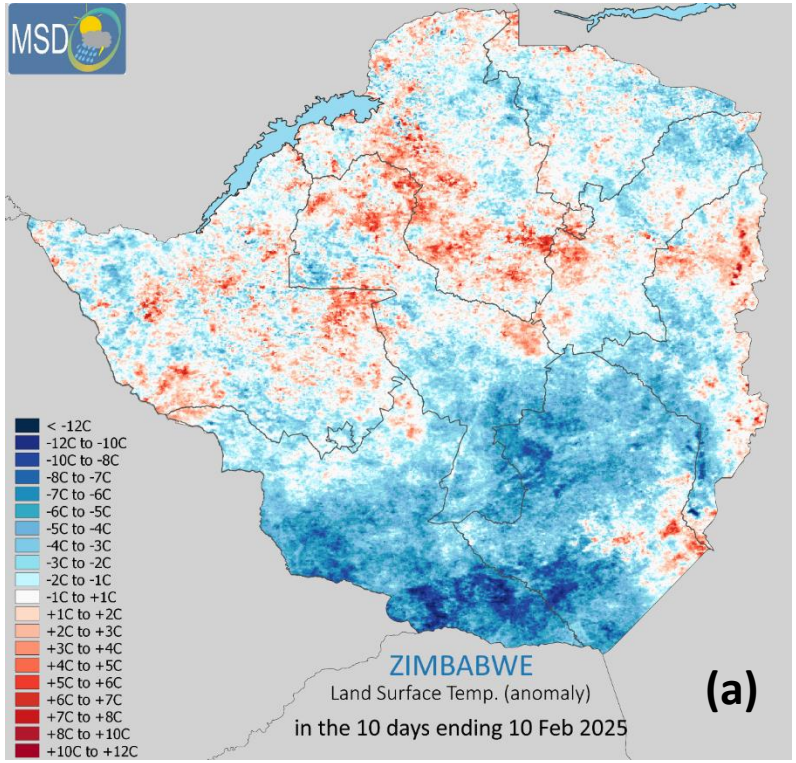


Fig 5 (a) *Land surface temperature as a percentage of the average, by 10 February 2025. Red means hotter than normal and blue means cooler than normal*

During the first dekad of February 2025, land surface temperatures across Zimbabwe showed cooler-than-normal conditions in the southern parts of the country, particularly in Matabeleland South, with a few isolated areas in Masvingo and Manicaland experiencing warmer-than-normal temperatures. The northern regions exhibited a mix of both warmer and cooler-than-normal conditions. The cooler conditions in the south are beneficial as they reduce evaporation and evapotranspiration rates, leading to improved soil moisture retention.

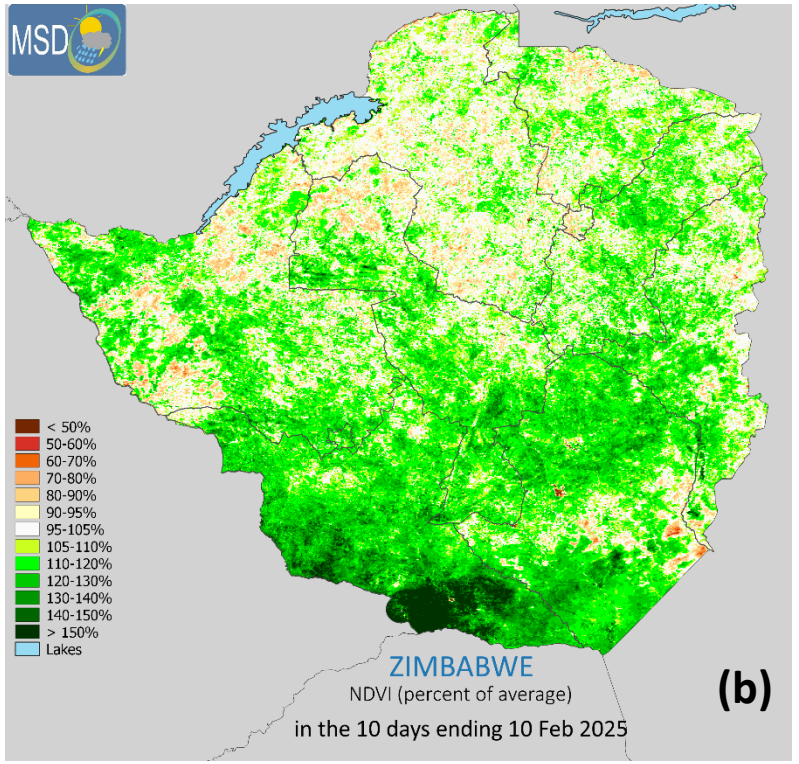


Fig 5 (b) *NDVI anomaly by 10 February 2025.*

In terms of vegetation, normal to above-normal vegetation conditions were observed across most areas, with the highest positive NDVI anomalies recorded in the southern parts of Matabeleland South and Masvingo Provinces. This indicates improved soil moisture, which supports better quality forage essential for livestock health and productivity. However, a few localized patches exhibited normal to below-normal vegetation conditions, suggesting areas where moisture deficits may still persist. Overall, the combination of cooler temperatures and improved vegetation cover provides favourable conditions for crop growth and livestock production in the southern regions of the country.

6. Short-Range Outlook: End of February 2025

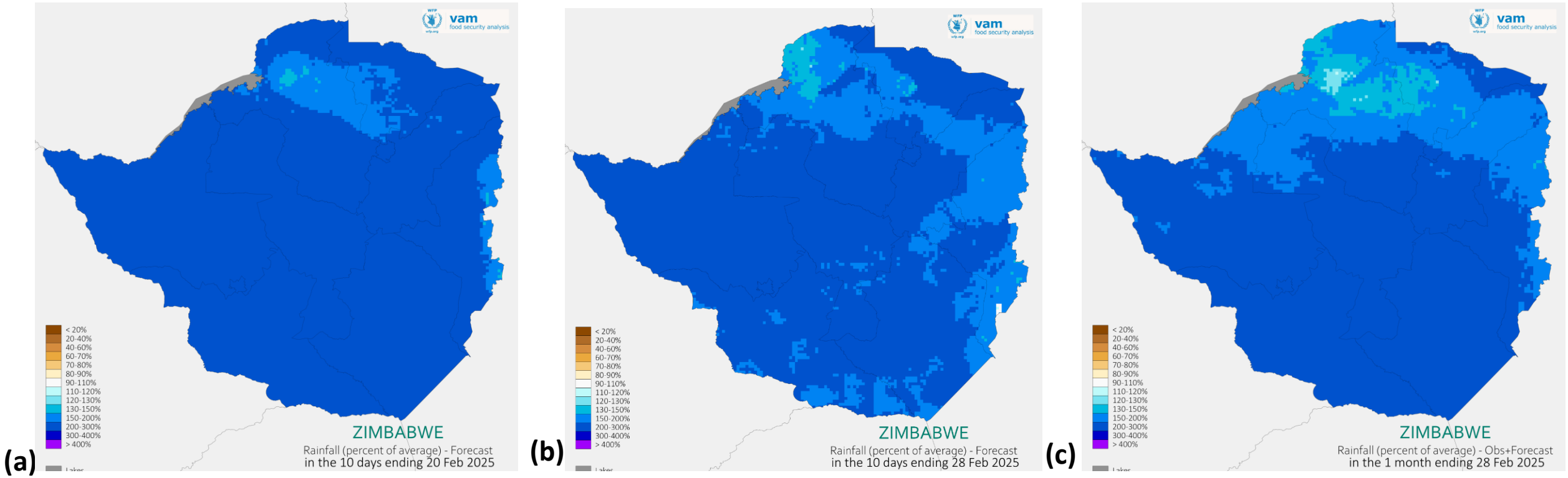


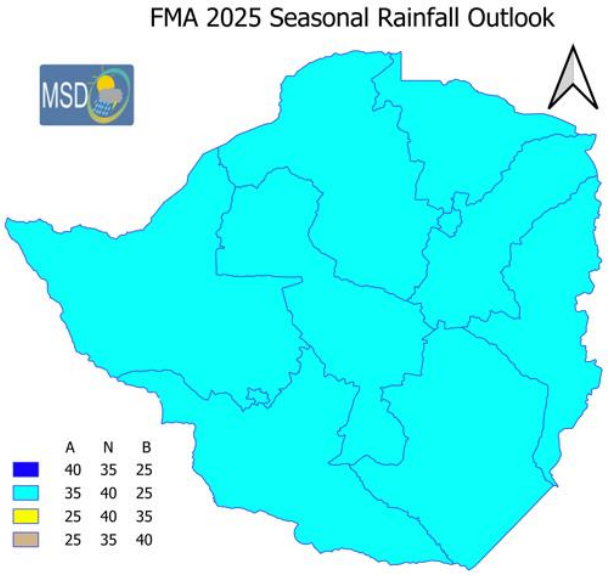
Fig 6: *Rainfall forecast Amounts for the 10 days ending 20 Feb 2025* ***(a)****, in the 10 days ending 28 Feb 2025* ***(b)*** *as percent of average. Browns = drier than average, blues = wetter than average*

Fig 8(c): *Rainfall forecast for the month ending 28 Feb 2025 as percent of average. Browns = drier than average, blues = wetter than average*

The short-range forecast for the end of February indicates a continuation of the wet spell, with above-normal rainfall expected in most parts of the country. The long-range forecast for February to April 2025 suggests a wetter-than-average period, with rainfall accumulation expected to be 100-125% of the long-term average. This outlook provides a positive signal for crop growth and water availability, although there is an increased risk of localized flooding in low-lying areas.

6. Outlook: Long Range

Long Range (February-March-April)



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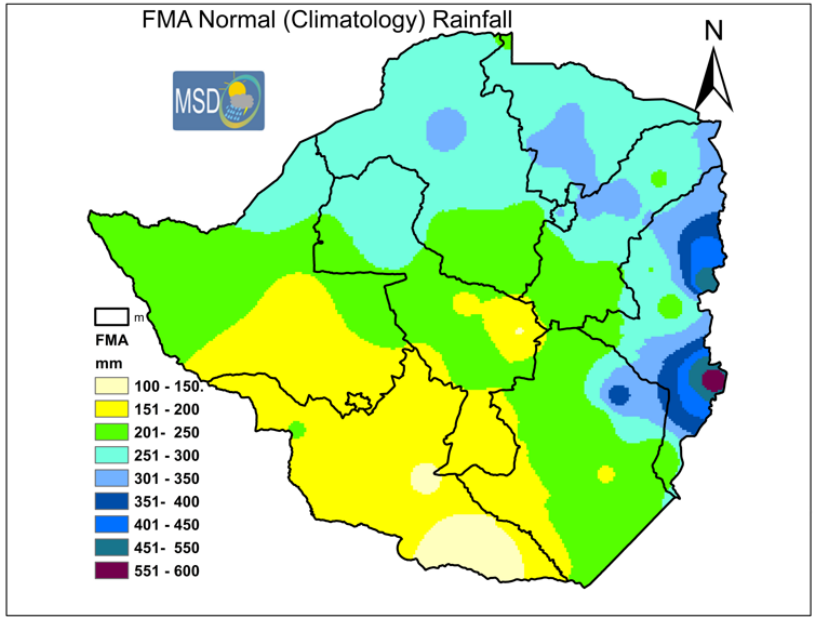

(b)

Fig9a Probabilistic Forecast. b. Then long-term average rainfall

February-March-April is expected to be relatively wetter than the long-term average across the country. The expected cumulative rainfall for the three months (February to April) is likely to 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 the 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 7(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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