



ZIMBABWE

MINISTRY OF ENVIRONMENT, CLIMATE, TOURISM
AND HOSPITALITY INDUSTRY

Meteorological Services Department

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Website: www.weather.co.zw



METEOROLOGICAL
SERVICES
DEPARTMENT

P.O Box BE 150, Belvedere, Harare, Zimbabwe
All correspondences should be addressed to the Director

Minimizing Risks through Science

2021/22 SEASONAL RAINFALL FORECAST FOR ZIMBABWE

METEOROLOGICAL SERVICES DEPARTMENT

02 September 2021

THE ZIMBABWE NATIONAL CLIMATE OUTLOOK FORUM

Introduction

The Meteorological Services Department of Zimbabwe (MSD) annually convenes a National Climate Outlook Forum (NACOF) where the seasonal rainfall forecast for the upcoming rainfall season is presented to national stakeholders. This follows the regional forum, Southern Africa Regional Climate Outlook Forum (SARCOF). It should be noted that the SARCOF Statement covers relatively large areas. As a result, the SARCOF statement may slightly differ from the NACOF statement, as it may not fully account for all the factors that influence national climate variability.

Multi-sectoral stakeholders will use this planning tool, which is critical for enhancing socio-economic development of the nation since weather, and climate information is invaluable to all sectors of the economy, especially as we work towards achieving a middle-class economy by 2030.

Methodology

Using statistical analysis, other climate prediction schemes and expert interpretation (including personnel from academic institutions), the climate scientists determined likelihoods of above-normal, normal-to-above, normal-to-below and below-normal rainfall for each area i.e. October-November-December (OND), and January-February-March (JFM).

The climate scientists took into account oceanic (sea surface temperatures) and atmospheric factors that influence our climate over SADC region including the El Niño-Southern Oscillation (ENSO), which is currently in its neutral phase. The ENSO is projected to shift into the La Niña phase during the forecast period.



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Seasonal Rainfall Outlook for Zimbabwe for 2021/22

The seasonal rainfall forecast is divided into two sub-seasons: October to December 2021 (OND) and January to March 2022 (JFM). The country is demarcated into three (3) zones according to the country’s climate drivers as illustrated in **Figure 1**.

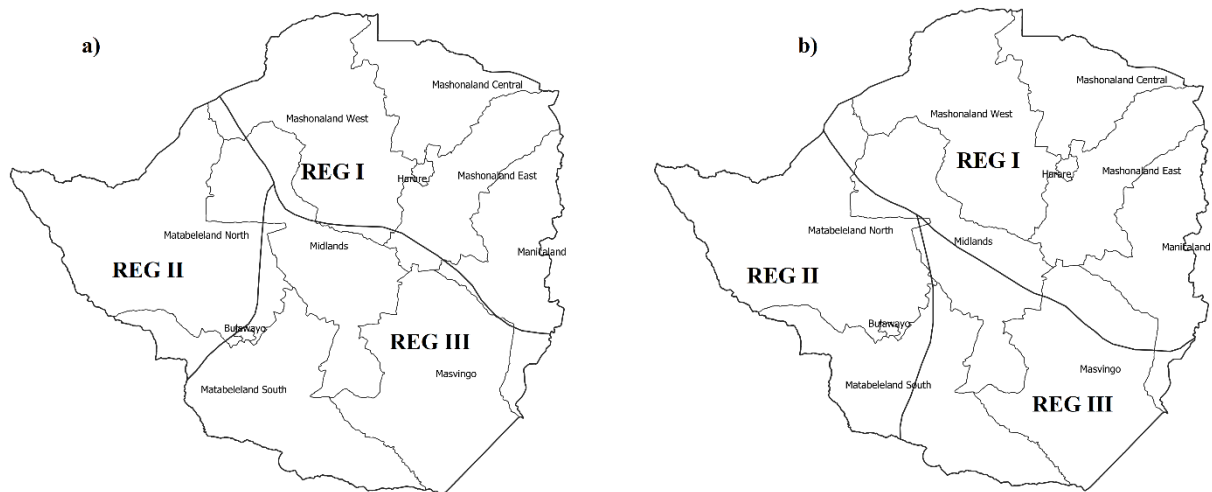


Figure 1: Zimbabwe’s Homogeneous Rainfall Zones a) OND b) JFM

It is important to note that the forecast is for total cumulative seasonal rainfall amounts and is expressed relative to the long-term averages particular to specific locations. It should be used together with the periodic updates: daily, 3-day and 10-day forecasts, issued by Meteorological Services Department to account for the distribution of rainfall during the season.

Terminology

Normal – long term average rainfall received in an area

Normal to below normal – cumulative rainfall totals **most** likely to be within the long term average range with a chance of going **below** this range



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Normal to above normal – cumulative rainfall totals **most** likely to be within the long term average range with a chance of going **above** this range

Above normal - cumulative rainfall totals **most** likely to be **above** the long term average range with a chance of falling within the long term average range

Below normal - cumulative rainfall totals **most** likely to be **below** the long term average range with a chance of falling within the long term average range

The **October 2021 to March 2022 forecast** is as follows:

a) Rainfall outlook for the October to December (OND) 2021 period

Region I: Harare Metropolitan, much of Mashonaland East, Mashonaland West, Mashonaland Central, north-eastern parts of Midlands, most of Manicaland

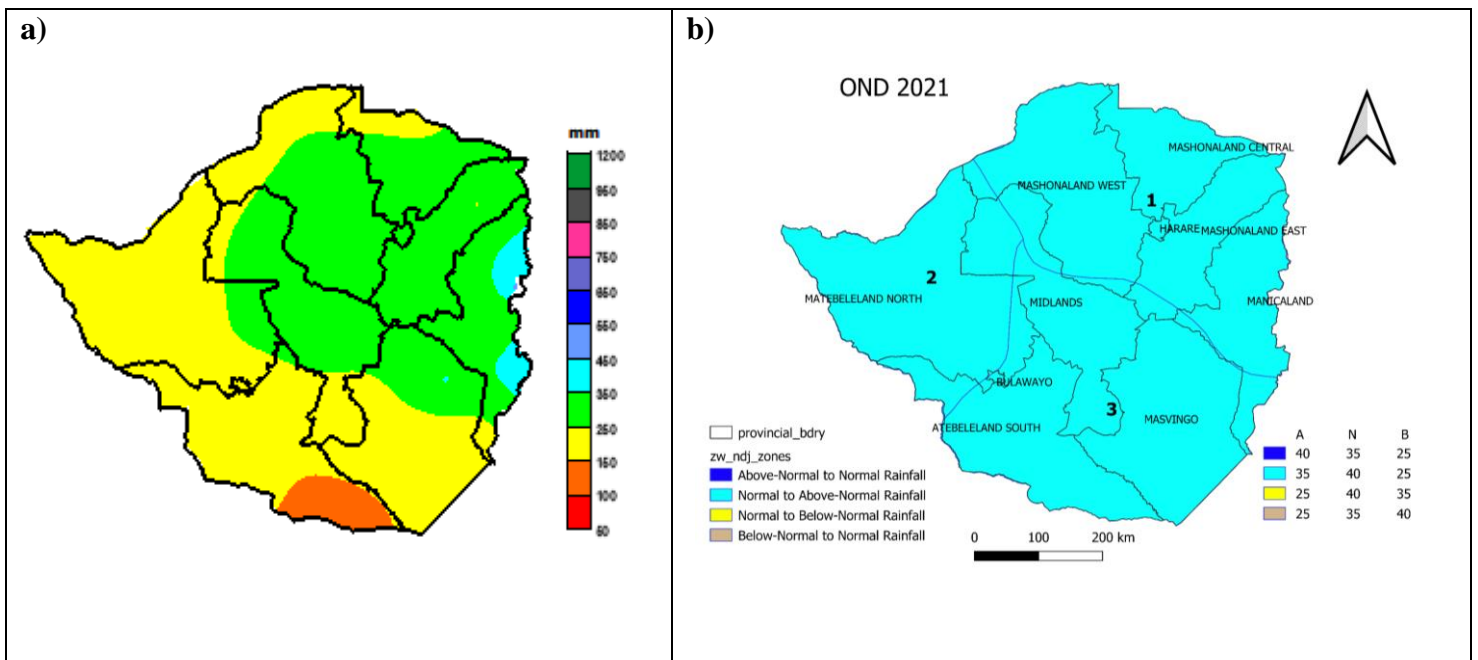
Increased chances of normal-to-above normal rainfall

Region II: The greater part of Matabeleland North, parts of Bulawayo Metropolitan, parts of Midlands and parts of Mashonaland West.

Increased chances of normal-to-above normal rainfall

Region III: Masvingo, the bulk of Midlands, the bulk of Bulawayo Metropolitan, the extreme southern parts of Manicaland and the bulk of Matabeleland South.

Increased chances of normal-to-above normal rainfall





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Figure 2(a) Long term mean rainfall for October-November-December (1981-2010), (b) Seasonal outlook for October-November-December 2021

(b) Rainfall outlook for the January to March (JFM) 2022 period

Region I: Mashonaland Provinces, Harare, most of Manicaland, northern parts of Masvingo and northern parts of Midlands.

Increased chances of normal-to-above normal rainfall

Region II: The greater part of Matabeleland North, northwest Matabeleland South, Bulawayo.

Increased chances of normal-to-above normal rainfall

Region III: The greater part of Masvingo, the extreme southern parts of Manicaland, southeast Matabeleland South and the southern parts of Midlands

Increased chances of normal-to-above normal rainfall

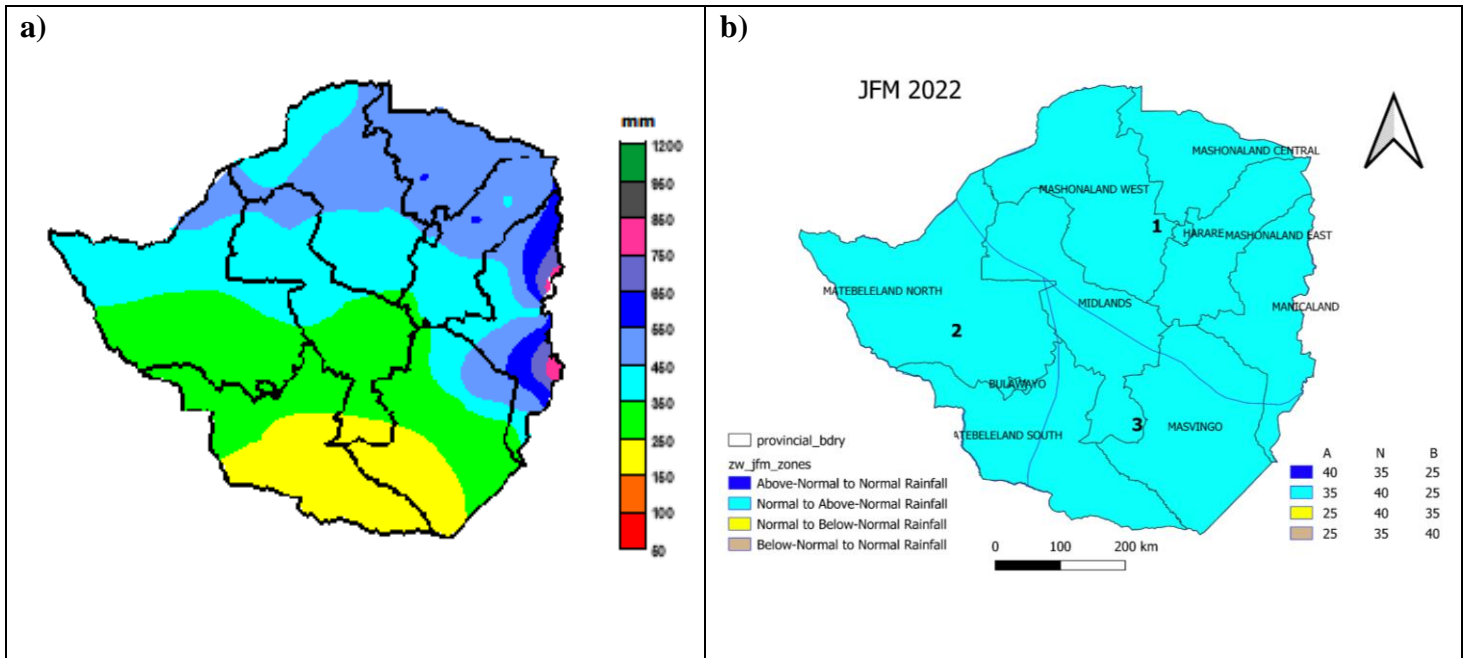


Figure 3(a) Long term mean rainfall for January-February-March (1981-2010), (b) Seasonal outlook for January-February-March 2022.



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Please Note: The Meteorological Services Department will continue to monitor all the available seasonal climate indicators which influence Zimbabwe's rainfall as they evolve. Thus, the seasonal rainfall predictions will be updated on a monthly basis beginning end of October.

IMPLICATIONS/ADVISORIES FOR THE 2021/22 RAINFALL SEASON OUTLOOK

- Observations made in recent seasons are that heavy storms followed by periods of elevated temperatures are getting more frequent.
- Violent storms, flash floods are more likely to occur.
- Prolonged dry spells may occur as the season unfolds.
- The occurrence of tropical cyclones is a possibility during the season. (NB: Comprehensive Tropical Cyclone forecasts are usually issued in November and the Department will communicate this information as soon as it is available.)
- Prolonged periods with high temperatures are highly likely.
- The prevalence of malaria and water-borne diseases is more likely.
- Given the current forecast, there is need to improve stocks of seed and fertilisers. There is a higher risk of leaching during the season.
- Soil conservation technologies such as construction contours and storm drains to be done.
- High rainfall may mean increase in livestock disease therefore farmers should stock up on dipping chemicals and ensure consistent dipping.
- There is need to continue with water harvesting programmes and conservation agriculture practices.



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- The current high-water security in the country is set to be further boosted in the upcoming inflow season in light of the forecasted normal to above normal rainfall season.
- The expected situation will result in excess inflow into the rivers and national dams. More dams are expected to spill in the upcoming season.
- Risk of riverine flooding is anticipated to be high.