

Meteorological Services Department

Telephone: +263 (242) 778209, 778174, 778176, 778161

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

Minimizing Risks through Science



2020/21 SEASONAL RAINFALL FORECAST FOR ZIMBABWE

METEOROLOGICAL SERVICES DEPARTMENT

02 September 2020

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-



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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.

Seasonal Rainfall Outlook for Zimbabwe for 2020/21

The seasonal rainfall forecast is divided into two sub-seasons: October to December 2020 (OND) and January to March 2021 (JFM). The country is demarcated into three (3) zones according to the country's climate drivers as illustrated in **Figure 1**.

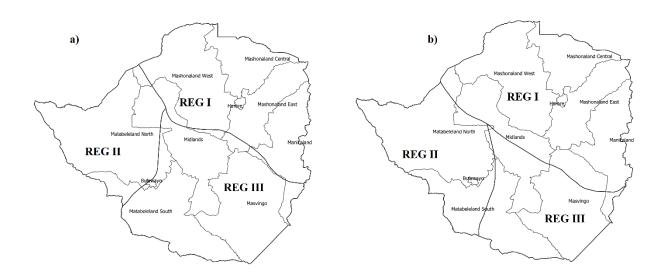


Figure 1: Zimbabwe's Homogeneous Rainfall Zones a) OND b) JFM



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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

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 2020 to March 2021 forecast** is as follows:

a) Rainfall outlook for the October to December (OND) 2020 period

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

Normal-to-above normal

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

Normal to below normal



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

Normal to above normal

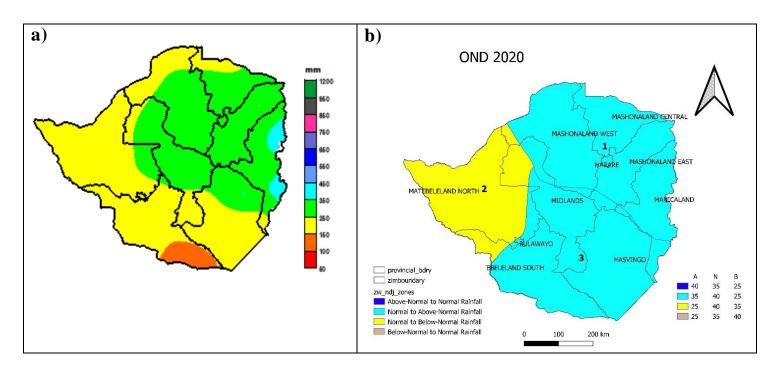


Figure 2(a) Long term mean rainfall for October-November-December (1981-2010), (b) Seasonal outlook for October-November-December

(b) Rainfall outlook for the January to March (JFM) 2021 period

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

Normal to above normal

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

Normal to above normal



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

Normal to above normal

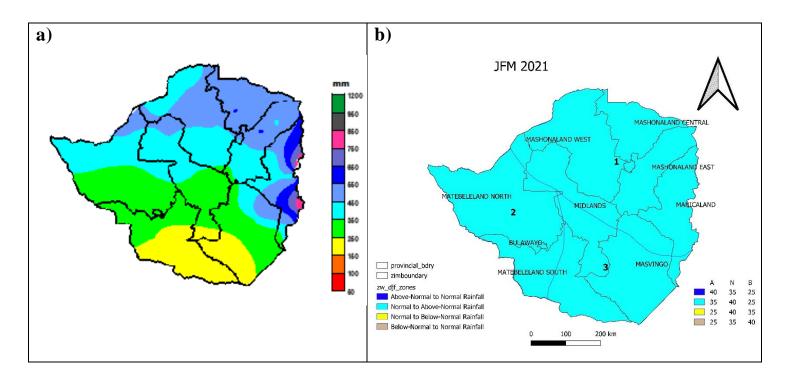


Figure 3(a) Long term mean rainfall for January-February-March (1981-2010), (b) Seasonal outlook for January-February-March.

<u>Please Note</u>: 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.



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IMPLICATIONS/ADVISORIES FOR THE 2020/21 RAINFALL SEASON OUTLOOK

- Observations made in recent seasons are that heavy storms followed by periods of elevated temperatures are getting more frequent.
- October rains are generally erratic for rain-fed agriculture; more effective rains are expected from November into December 2020 in most places.
- There is need to continue with water harvesting programmes and conservation agriculture practices.
- The policies of small dam construction, borehole drilling/ deepening, rehabilitation of irrigation schemes, conservation and protection of wetlands should continue.
- Violent storms, prolonged dry spells, flash floods and tropical cyclones cannot be ruled out as the season progresses.
- The policies of small dam construction, borehole drilling/ deepening, rehabilitation of irrigation schemes, conservation and protection of wetlands should continue.