



Republic of Zambia
Ministry of Green Economy and Environment Zambia
Meteorological Department

2026 / 2027 Season Rainfall Forecast

National outlook and sector guidance for the coming rainy season

Issued by

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1. General Situation

The 2026/2027 rain season is expected to be influenced by a very strong El Niño phase of the El Niño Southern Oscillation (ENSO), together with a positive Indian Ocean Dipole (IOD) and a negative Subtropical Indian Ocean Dipole (SIOD). These global climate drivers are likely to favour reduced rainfall over much of Zambia, except for the northern areas of the country, which are likely to receive relatively more rainfall.

Below-Normal rainfall is likely over much of Zambia during the 2026/2027 rainfall season, while Above-Normal rainfall is expected over Luapula, Northern and Muchinga Provinces, including the northern parts of North-Western Province.

There is a likelihood of prolonged dry-spell episodes during the months of December, January and February (DJF), especially over the southern half of Zambia. However, episodes of heavy rainfall and flooding in flood-prone areas are anticipated, especially in the northern parts of the country.

The rain season is likely to start in October over Copperbelt, Luapula and North-Western Provinces, including the western half of Northern Province. The rains are then likely to spread to central parts of the country during November, reaching parts of southern and eastern Zambia in December.

Rainfall is projected to end in March over most parts of Zambia, while the extreme northern parts of the country are likely to continue receiving rainfall into April.

1.1 The season Summary

Main climate drivers	Very strong El Niño, positive IOD and negative SIOD, a combination that favours a drier season over most of the country
Overall rainfall	Below-Normal over most of the south and centre; Above-Normal over the north (Luapula, Northern, Muchinga and northern North-Western)
Dry spells	Prolonged dry spells likely in December to February over the southern half, at the critical crop-flowering stage
Flooding	Episodes of heavy rainfall and localised flooding possible in the wetter north
Start of season	October in the north and Copperbelt, spreading through November, reaching the south and east by December
End of season	March over most of the country, extending into April over the far north

In simple terms

Most of the country, especially the southern half, should prepare for a drier season than usual, with a real risk of long dry spells in the middle of the season. The north should prepare for good rains and possible localised flooding. Because this is a strong El Niño combined with a negative SIOD, the season carries the features associated with past dry, dry-spell-prone years over the southern half of Zambia.

2. Detailed Sub-Seasonal Forecast

The seasonal forecast is issued for overlapping three-month periods. Each period below gives the rainfall map, the areas expected in each rainfall category, and a plain-language summary. The rainfall categories are defined in Section 2.1.

2.1 Understanding the rainfall categories

Each category compares expected rainfall with the 1991 to 2020 average (the climatological baseline) for the same three-month period.

Above Normal	Rainfall greater than 125% of average for the period
Normal to Above Normal	Rainfall between 100% and 125% of the average
Normal to Below Normal	Rainfall between 75% and 100% of the average
Below-Normal	Rainfall less than 75% of the average

2.2 October to December (OND)

Zambia Rainfall Forecast - OND 2026

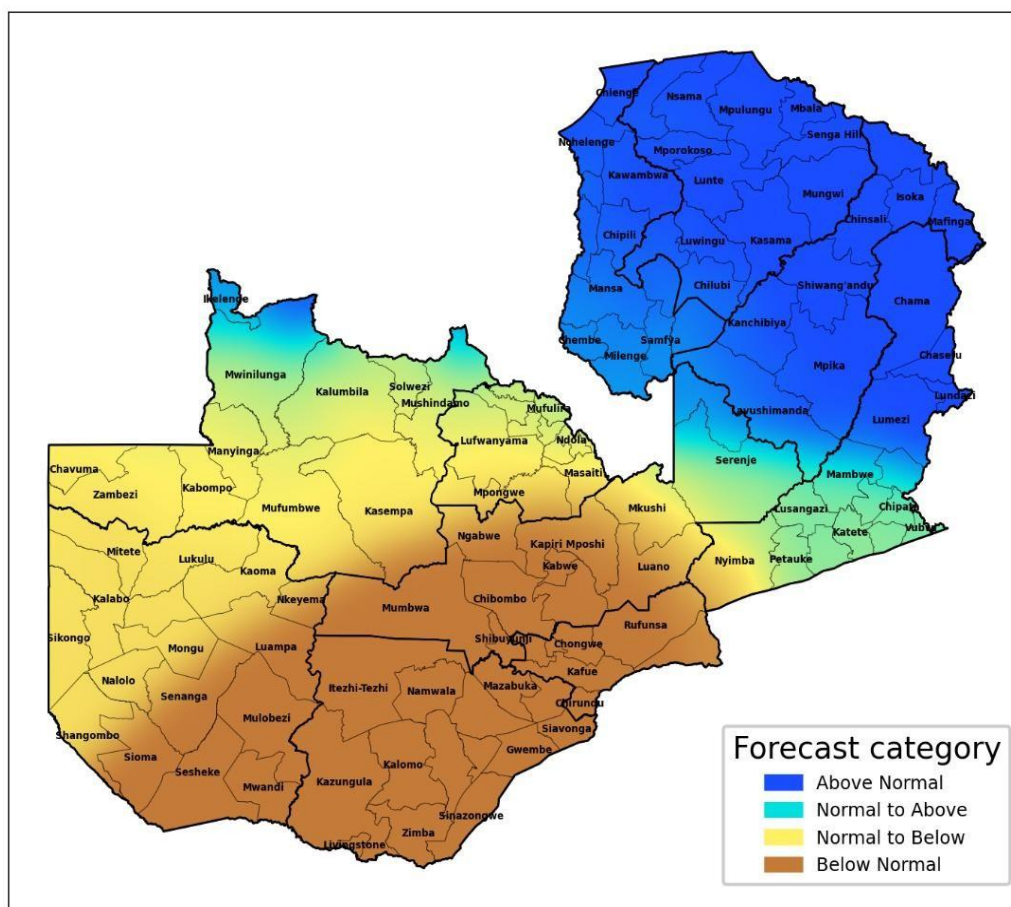


Figure 1: Rainfall forecast for October, November and December (OND) 2026

Below-Normal	Southern and Lusaka Provinces, much of Central Province and the southern parts of Western Province.
Normal to Below Normal	Copperbelt Province, much of North-Western Province and the northern parts of Western Province, including Nyimba and Mkushi districts, and the southern parts of Serenje district.
Normal to Above Normal	Ikkelenge, Mambwe, Chipata, Vubwi, Chadiza, Sinda, Katete, Chipangali, Kasenengwa and Petauke, and the northern parts of Mwinilunga, Mushindamo and Serenje districts.
Above Normal	Northern, Luapula and Muchinga Provinces, including Lumezi, Chasefu, Chama, Lundazi and Chitambo districts.

What to expect for October to December (OND)

The season starts driest in the south and centre, while the north is already wet. Southern, Lusaka, Central and southern Western areas should not rush to plant on the first isolated rains.

2.3 November to January (NDJ)

Zambia Rainfall Forecast - NDJ 2026/27

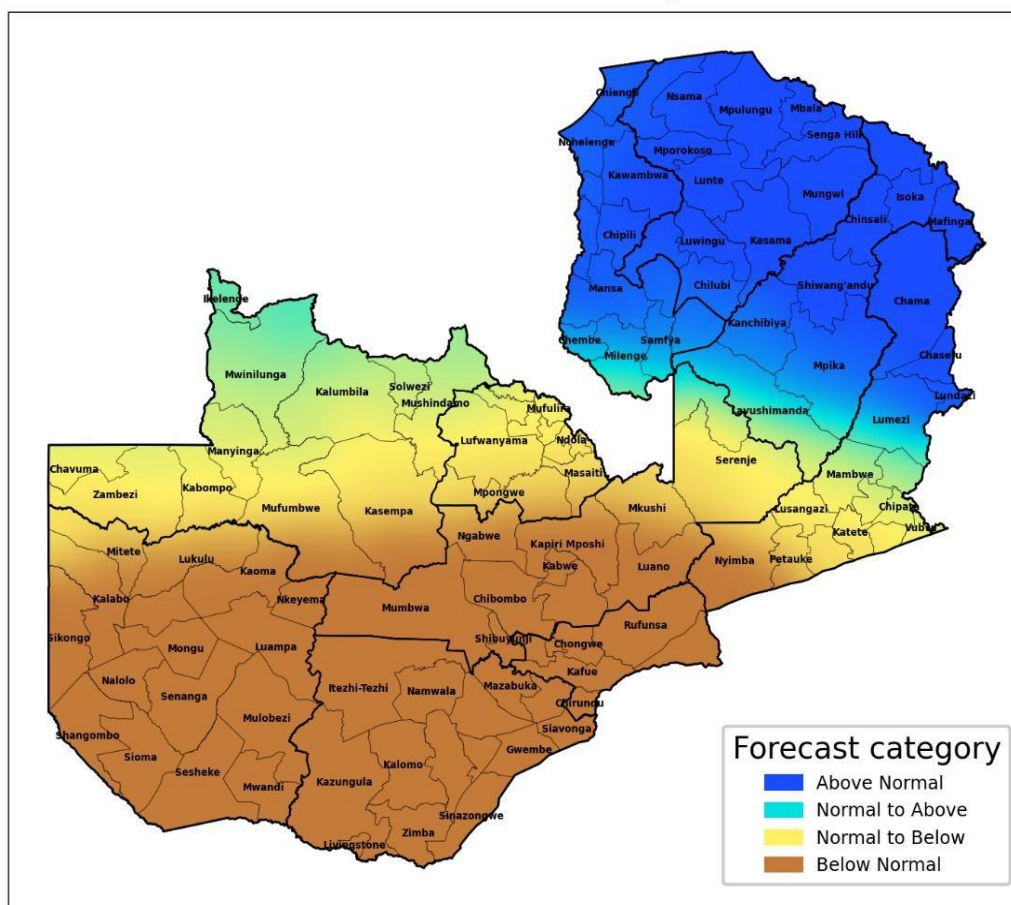


Figure 2: Rainfall forecast for November, December 2026 and January (NDJ) 2027

Below Normal	Western, Southern, Lusaka and much of Central Provinces, extending into the southern parts of Eastern and North-Western Provinces.
Normal to Below Normal	Copperbelt and much of North-Western Provinces, including Petauke, Sinda, Katete, Chadiza, Vubwi, Chipata, Kasenengwa, Mambwe, Lusangazi, Ikelenge, Chitambo and Serenje districts.
Normal to Above Normal	Lavushimanda, Chitambo, Milenge and the extreme northern parts of Mwinilunga, Mambwe, Chipangali, Kalumbila and Mushindamo districts.
Above Normal	Northern Province, much of Luapula and Muchinga Provinces, including Chama, Chasefu, Lumezi and Lundazi districts.

What to expect for November to January (NDJ)

The dry signal spreads: the south, west, centre and southern east are likely to be drier than usual, while the north remains wet.

2.4 December to February (DJF)

Zambia Rainfall Forecast - DJF 2026/27

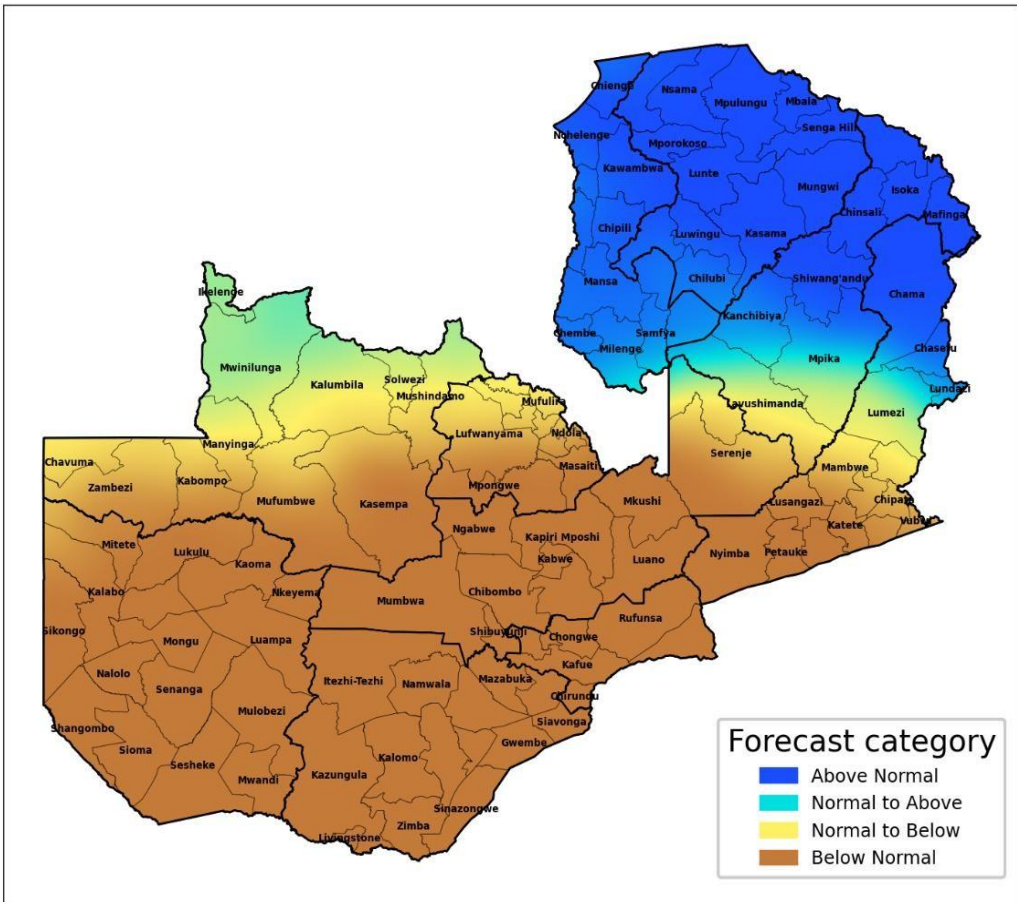


Figure 3: Rainfall forecast for December 2026, January and February (DJF) 2027

Below Normal	Western, Southern, Copperbelt, Lusaka and much of North-Western, Central and Eastern Provinces.
Normal to Below Normal	Chavuma and Chipangali, and the southern parts of Mwinilunga, Solwezi, Mushindamo, Kalumbila, Lavushimanda, Mpika and Lumezi districts.
Normal to Above Normal	Ikkelenge, and the northern parts of Mwinilunga, Solwezi, Mushindamo, Kalumbila, Lavushimanda, Mpika and Lumezi districts.
Above Normal	Northern and Luapula Provinces, including much of Muchinga Province and Chama, Chasefu and Lundazi districts.

What to expect for December to February (DJF)

This is the peak of the season and the driest period for the south and centre. Prolonged dry spells are most likely now over the southern half, coinciding with the critical crop-flowering stage.

2.5 January to March (JFM)

Zambia Rainfall Forecast - JFM 2027

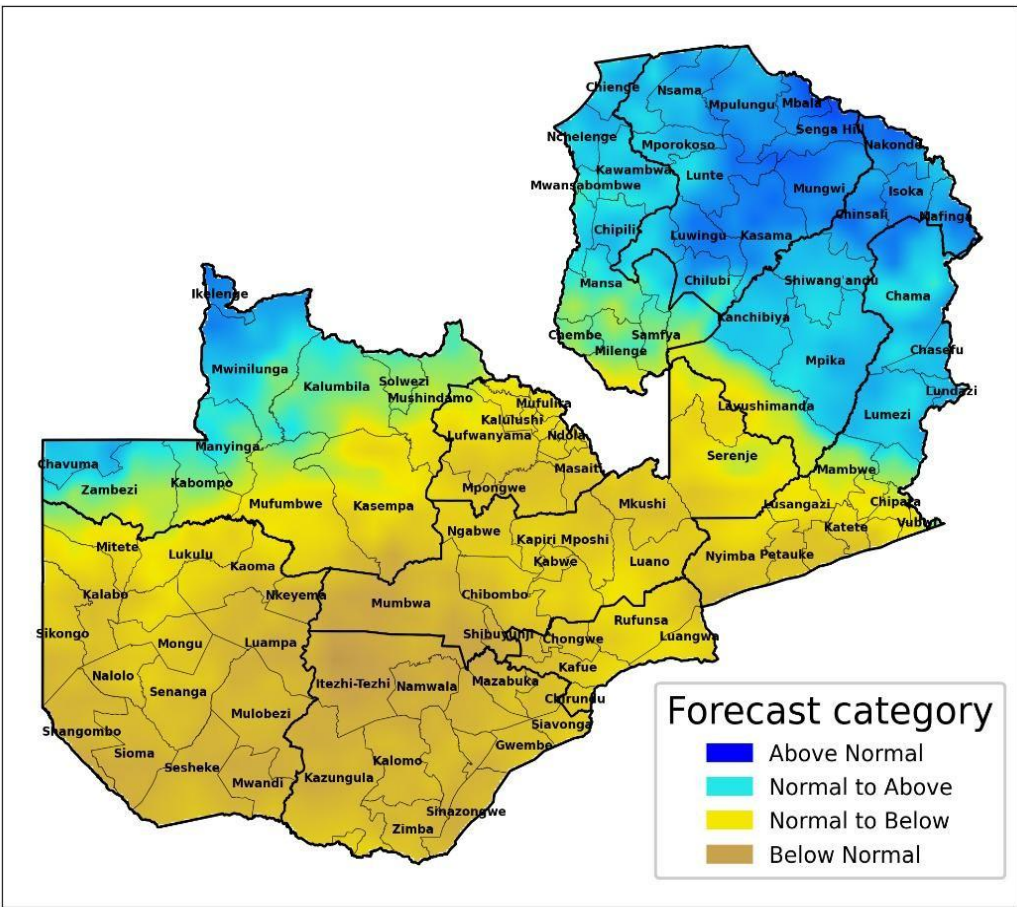


Figure 4: Rainfall forecast for January, February and March (JFM) 2027

Below-Normal	Much of Southern Province, and Mumbwa and Shibuyunji districts.
Normal to Below Normal	Copperbelt, much of Central, Lusaka and Western Provinces, including the southern parts of North-Western, Muchinga, Luapula and Eastern Provinces.
Normal to Above Normal	Much of Northern and Muchinga Provinces, including the northern parts of North-Western, Luapula and Eastern Provinces.
Above Normal	Ikelenge district and small areas of the extreme north, mainly Mbala, Senga Hill, Nakonde and Mungwi districts.

What to expect for January to March (JFM)

As the season winds down, the far south stays driest, while the north continues to receive good rains.

3. Season Timing

3.1 Likely start of the season

Likely Start of the Season - 2026/2027

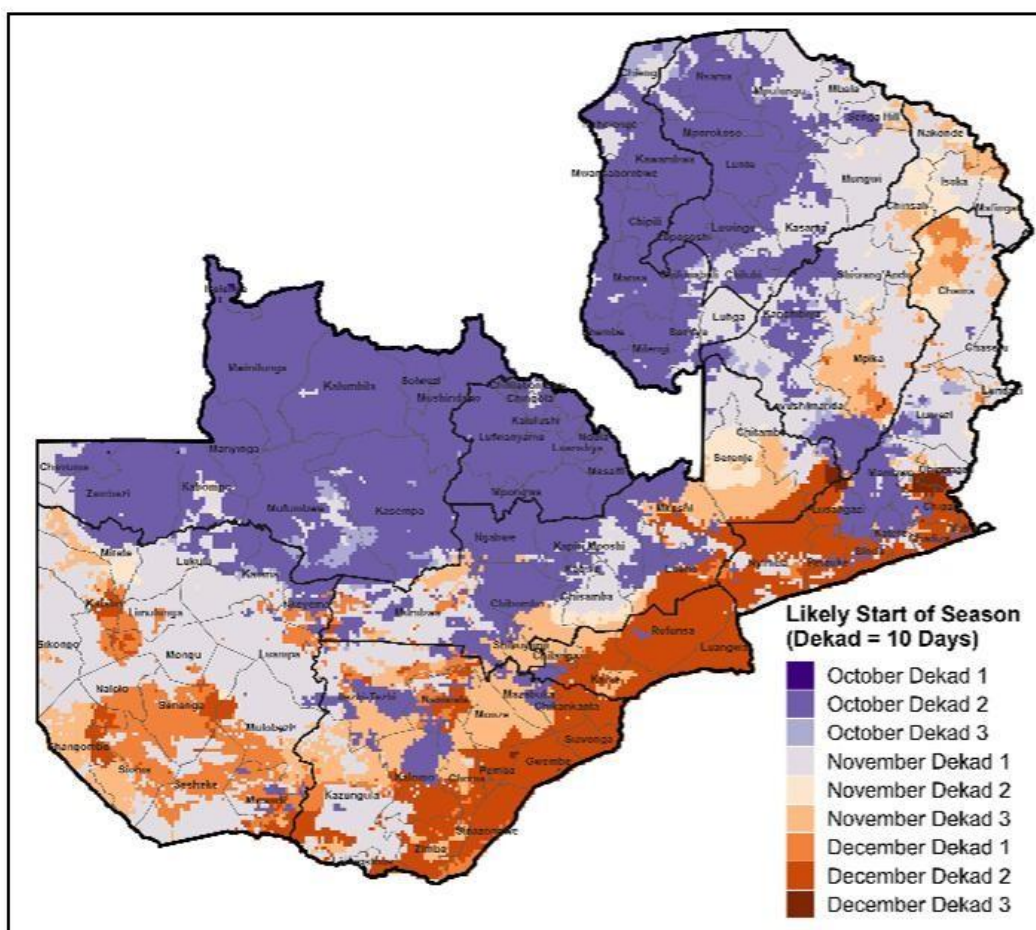


Figure 5: Likely start of the 2026/2027 rainy season

An early onset in October is likely over much of Luapula, North-Western and Copperbelt Provinces, extending into parts of Northern Province, including Mambwe, Ngabwe, Kapiri Mposhi, Luano, Chibombo and Kabwe districts.

Onset is likely to occur during November over Western, Northern and Muchinga Provinces, as well as Chisamba, Mumbwa and Chitambo districts.

A delayed onset is expected in December over much of southern and south-eastern Zambia.

3.2 Likely end of the season

Likely End of the Season - 2026/2027

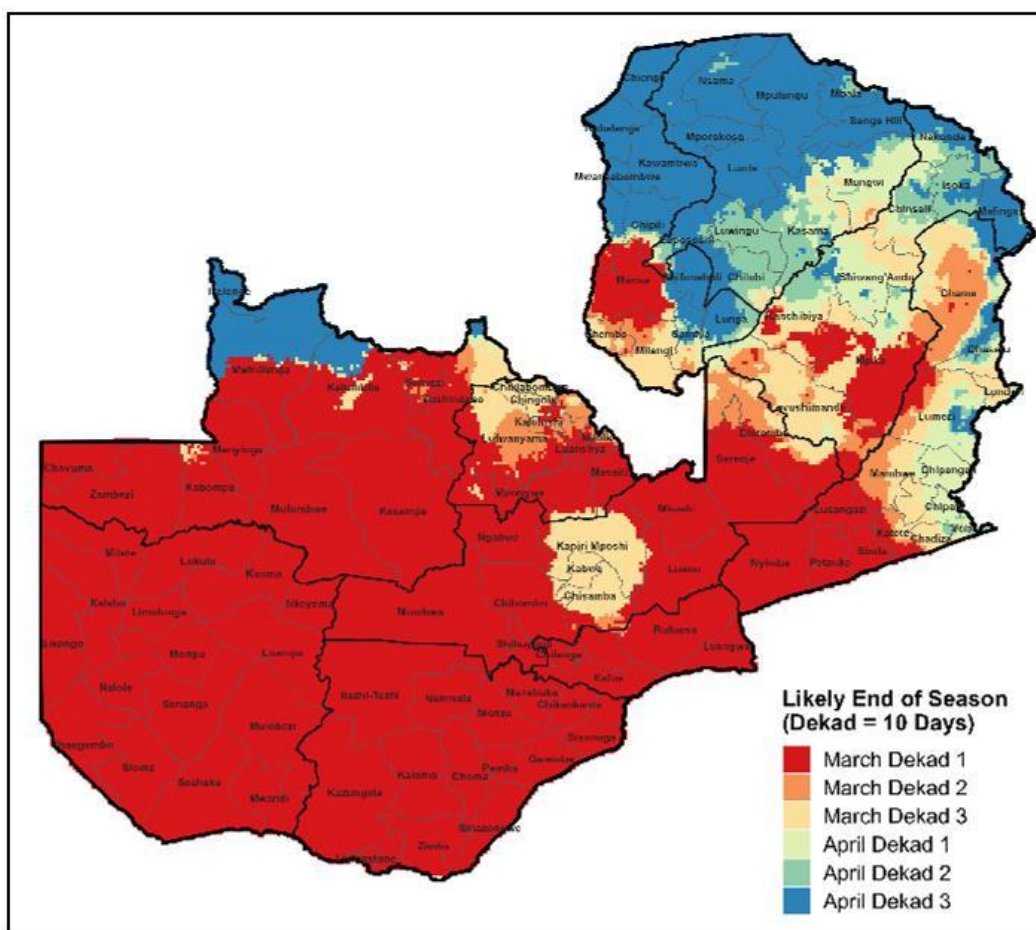


Figure 6: Likely end of the 2026/2027 rainy season

The 2026/2027 rain season is expected to end gradually from south to north. Cessation is likely during March over Southern, Lusaka, Western and much of Central, North-Western and Copperbelt Provinces, as well as the southern parts of Eastern, Muchinga and Luapula Provinces.

A late cessation is likely over most parts of Northern, Luapula and Muchinga Provinces, where the rain season is anticipated to extend into the second and third dekad of April.

4. Normal (Average) Rainfall: 1991 to 2020 Climatology

The maps below show the normal (average) rainfall for each three-month period, based on the 1991 to 2020 baseline. They provide the reference against which the seasonal categories in Section 2 are measured.

Normal (Average) Rainfall - OND

October, November & December | 1991-2020 climatology (CHIRPS v3)

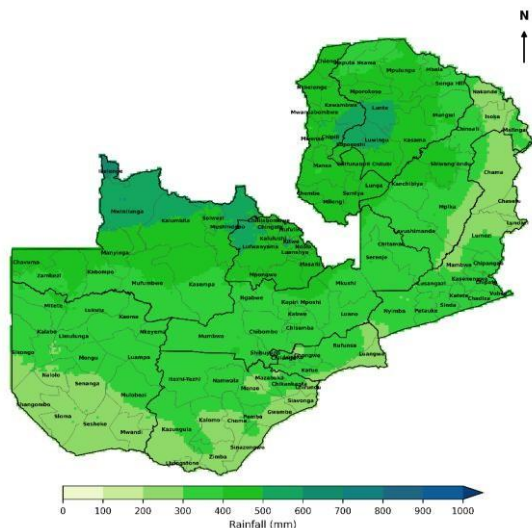


Figure 7: Normal rainfall, October to December (OND)

Normal (Average) Rainfall - NDJ

November, December & January | 1991-2020 climatology (CHIRPS v3)

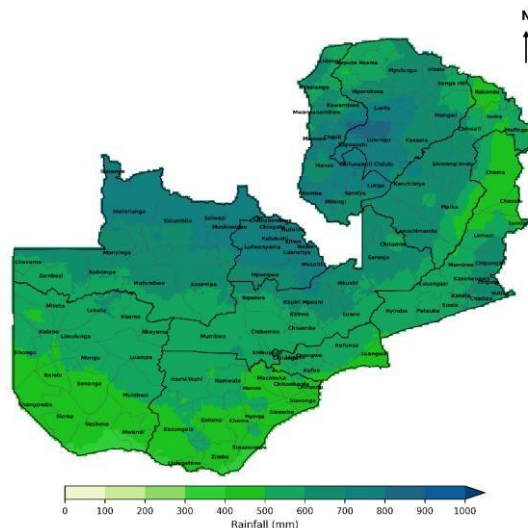


Figure 8: Normal rainfall, November to January (NDJ)

Normal (Average) Rainfall - JFM

January, February & March | 1991-2020 climatology (CHIRPS v3)

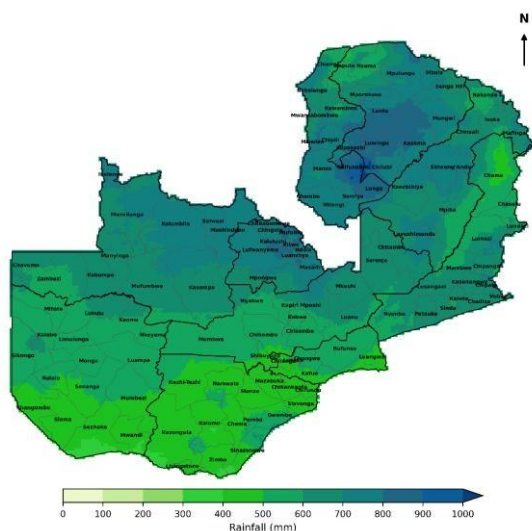


Figure 9: Normal rainfall, December to February (DJF)

Normal (Average) Rainfall - DJF

December, January & February | 1991-2020 climatology (CHIRPS v3)

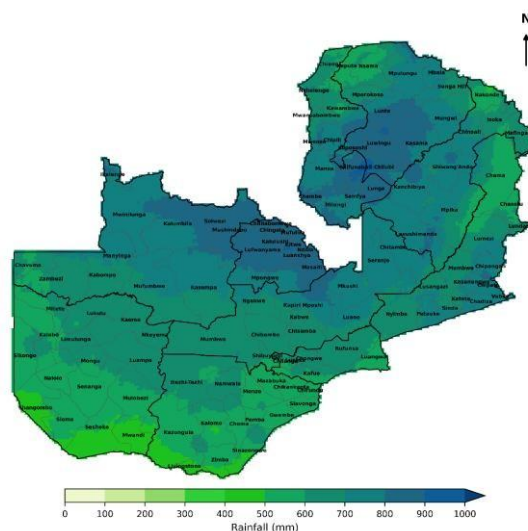
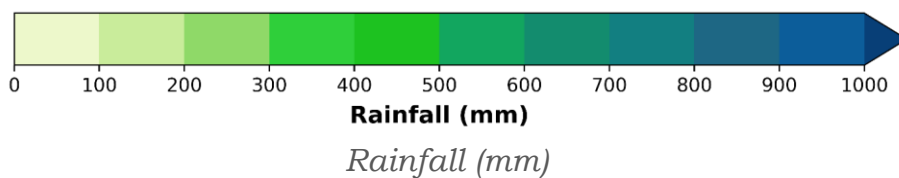


Figure 10: Normal rainfall, January to March (JFM)



5. Sector Impacts and Advisories

The outlook has different implications for the drier south and centre and the wetter north. The tables below summarise the zonal outlook and set out likely impacts, recommended actions and lead institutions for each sector. Section 5.3 offers plain-language guidance for households and communities.

5.1 Outlook summary

Northern belt: Northern, Luapula and Muchinga, and the northern parts of North-Western	Above-normal to normal-to-abovenormal
Central transition: Copperbelt, Central and Eastern, and the southern parts of North-Western	Normal to above-normal during OND and NDJ, changing to normal to below-normal from DJF
Southern belt: Southern, Lusaka and Western, and the southern parts of Central and Eastern	Below Normal

5.2 Sector Impact And Advisory Matrix

Sector	Likely impact — drier south & central	Likely impact — wetter north	Recommended action	Lead institution(s)
Agriculture and Food Security	Higher risk of moisture stress, dry spells and reduced crop yields, particularly where the onset is delayed or the rains are poorly distributed.	Generally favourable growing conditions, although localised waterlogging and nutrient leaching may occur.	Promote early maturing and droughttolerant varieties in drier areas; follow rainfall-onset information before planting; monitor ZMD and agrometeorological updates through the season.	Ministry of Agriculture; ZMD
Water Resources	Lower runoff and reduced recharge of some reservoirs, rivers and groundwater sources.	Improved water availability and recharge, though localised flooding is possible during heavy rainfall.	Strengthen water conservation and storage planning in drier areas; monitor reservoirs, drainage and flood-prone areas in the wetter north.	Ministry of Water Development and Sanitation; WARMA
Energy and Hydropower	Reduced inflows into parts of the Zambezi catchment, with possible effects on hydropower generation if dry conditions persist.	Higher rainfall may support improved river flows and water availability in northern catchments.	Continue monitoring rainfall, catchment conditions, reservoir levels and inflows throughout the season.	Ministry of Energy; ZESCO; ZRA
Health	High temperatures and reduced water availability may raise the risk of heat stress and water-related illness.	Heavy rainfall and localised flooding may raise the risk of water- and vector-borne diseases.	Strengthen disease surveillance, safewater messaging and preparedness in areas at risk.	Ministry of Health
Disaster Risk Management	Areas at risk of prolonged dry spells and water stress require monitoring.	Maintain preparedness for localised flooding and heavyrainfall events.	Update contingency plans using regular ZMD forecasts and early-warning information; pre-position resources.	DRMD
Livestock	Reduced pasture and water availability, particularly during prolonged dry spells.	Generally favourable pasture and water conditions, though localised flooding may affect low-lying areas.	Plan water and pasture management in drier areas; monitor livestock disease risk during wet periods; vaccinate ahead of movement.	Ministry of Fisheries and Livestock
Fisheries	Lower water levels possible in some rivers, lakes, reservoirs and fishponds.	Improved water availability, though flooding may affect some ponds and aquaculture facilities.	Monitor water levels; manage stocking and aquaculture according to local conditions.	Ministry of Fisheries and Livestock

Transport and Infrastructure	Major rainfall-related disruptions less frequent, though isolated heavy events may still cause localised damage.	Heavy rainfall may cause localised flooding and damage to roads and bridges.	Maintain drainage; monitor flood-prone roads and bridges; prepare alternative access routes where necessary.	Ministry of Infrastructure; RDA
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5.3 Guidance for the public

The seasonal outlook is a three-month average, not a day-by-day forecast. The following plain-language guidance can help households, farmers and communities prepare.

If you are in the southern or central belt (Southern, Lusaka, Western, Copperbelt, Central and Eastern, and the southern parts of North-Western):

- Expect a later and drier start. Do not plant on the first isolated rains; wait for a proper onset (steady rain that wets the soil over two to three days).
- Choose early-maturing and drought-tolerant seed and consider spreading planting across two windows to reduce the risk from a mid-season dry spell.
- Harvest and store water where you can and use water sparingly through the season.
- Prepare for prolonged dry spells in December to February, the period most likely to affect crops at flowering.

If you are in the northern belt (Northern, Luapula, Muchinga and the northern parts of North-Western):

- Expect near-normal to above-normal rains, with good growing conditions in most areas.
- Prepare for possible localised flooding: clear drainage and waterways and avoid building or farming in flood-prone areas.
- Protect harvested produce from moisture and watch for waterlogging and nutrient leaching in low-lying fields.

For everyone:

- Follow ZMD daily, weekly and 10-day forecasts and the Agrometeorological Bulletins, and act on official early warnings.
- This seasonal outlook will be reviewed and updated as new information becomes available.

6. Important Notes and Feedback

6.1 How to use this forecast

This seasonal forecast provides a general outlook based on three -month rainfall averages and is intended to support planning and decisionmaking. It may not fully represent rainfall conditions on individual days or weeks. Users are advised to follow ZMD daily, weekly and 10 -day forecasts and Agrometeorological Bulletins for updated information. The seasonal forecast will be reviewed and updated as new climate information becomes available.

Definition: a prolonged dry spell is a period of more than 10 days with less than 1 millimetre of rainfall.

6.2 Stay updated and give feedback

We value your feedback

Help us make the seasonal forecast more useful for your sector. Scan the code or reach us at:

Website: www.zmd.gov.zm

E-mail: weather@mgee.gov.zm

Survey: <https://zmd.gov.zm/zmd-products-and-services/>



Scan to give feedback