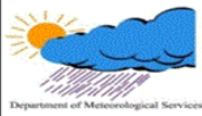




Environment
and Tourism

MINISTRY



Department of Meteorological Services

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BOTSWANA AGROMETEOROLOGICAL MONTHLY BULLETIN

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HIGHLIGHTS:

- Wide spread rainfall
- Improved vegetation
- Floods over some areas

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(Synopsis) (1)
2. Vegetation condition (1)
3. Temperature situation
(2 & 3)
4. Rainfall situation (3 & 4)
5. Climate outlook (5)
6. Farmers Tips (5)

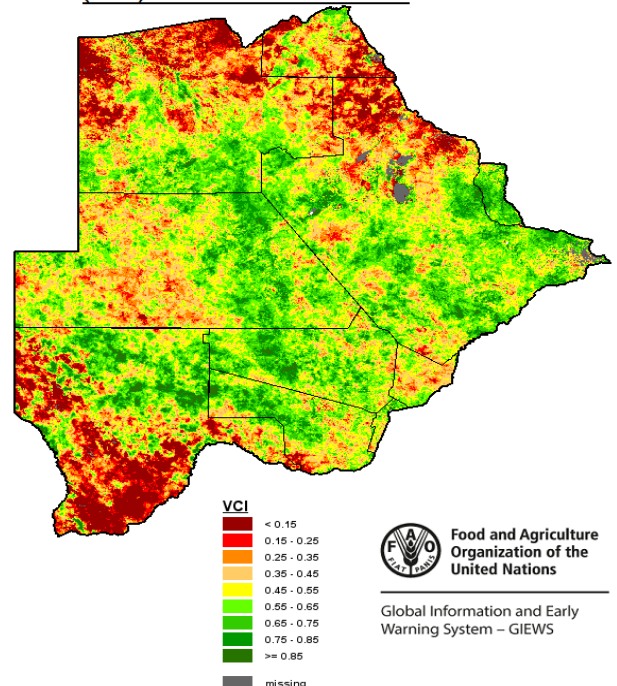
SYNOPSIS:

A weakness at upper levels of the atmosphere associated with the Inter Tropical Convergence Zone brought tropical moisture into the country, bring above normal rainfall which caused extensive flooding conditions over some areas of the country. This in turn resulted in below average maximum temperatures over much of the country. Vegetation conditions showed healthier vegetation over much of the country.

Healthy vegetation is observed across much of the country, but lagging behind are Okavango, Chobe and western Kgalagadi districts which depicts poor vegetation. But because of the above normal rainfall received during February 2025, much improvement is anticipated.

Vegetative Condition Index (VCI) map shows improved vegetation over the entire country; the value 0 (red) shows stressed vegetation, 100 (green) is healthy. Anything below 36% is extreme drought.

VEGETATION CONDITION INDEX (VCI) FOR FEBRUARY 2025



Food and Agriculture
Organization of the
United Nations

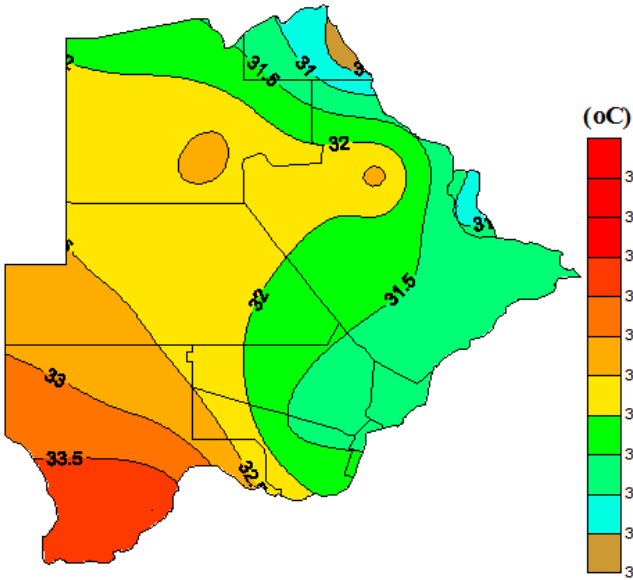
Global Information and Early
Warning System – GIEWS

Map 1: Vegetation Condition Index for February 2025

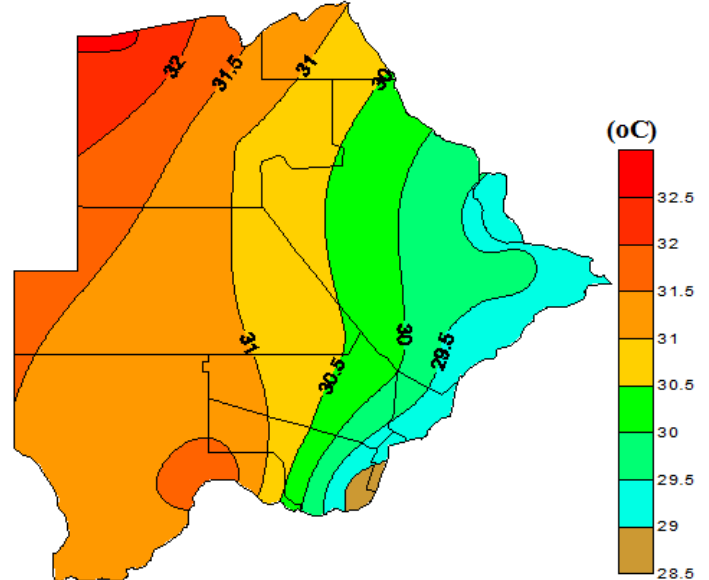
TEMPERATURE SITUATION

Maximum temperatures for the month of February 2025 did not follow the normal spatial distribution of increasing from the south west to the north of the country, but rather increased from the north west to eastern part and south eastern parts of Botswana. Maximum mean temperatures were below normal due to heavy rains with, Shakawe recorded the highest mean temperature of 32.6°C, followed by Werda at 31.8°C. The lowest mean maximum was 28.6°C at S.S.K.I.A followed by Goodhope at 28.9°C. (see map 2 & 3).

LONGTERM MAXIMUM MEAN TEMPERATURES FOR FEBRUARY (1981 - 2010)



MAXIMUM MEAN TEMPERATURES FOR FEBRUARY 2025

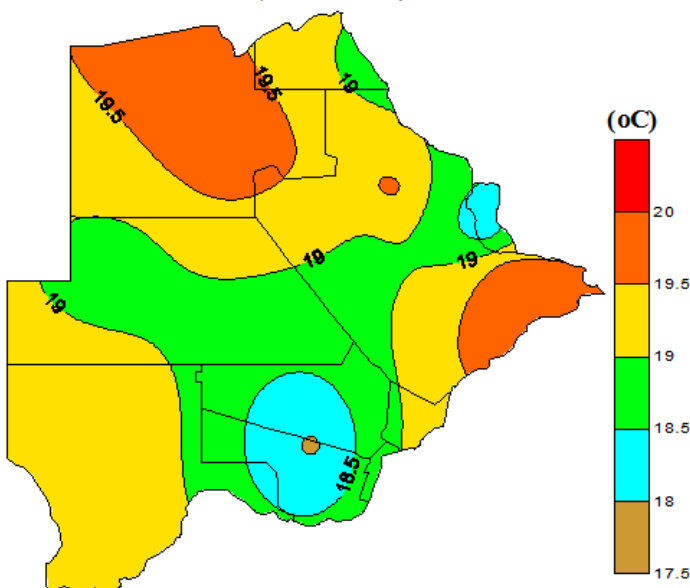


Map 2: Average maximum temperatures for February (1981-2010).

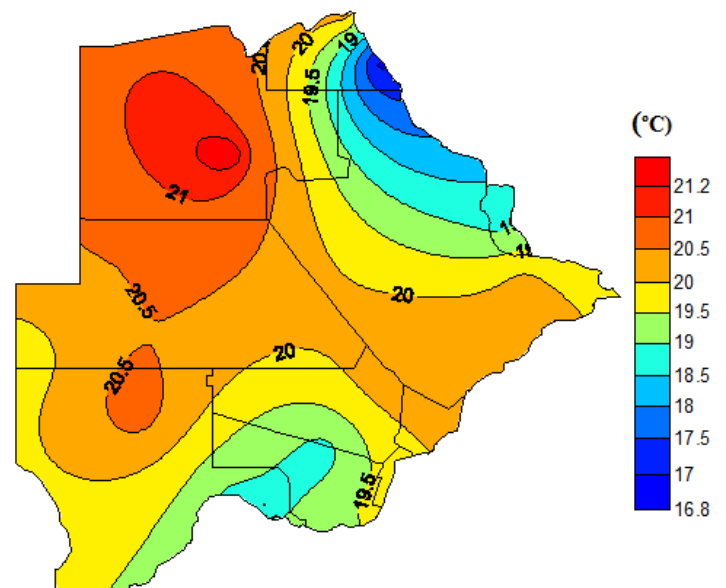
Map 3: February 2025 month maximum mean temperatures.

Mornings were relatively hot for this time of the year with an average of around 20°C. thus reflecting that minimum mean temperatures were generally in the above normal range. Minimum temperatures did not deviate much from the normal spatial distribution as the cooler areas were still around the Northeast and Southern districts, but this time the coolest place was in the Chobe district. The lowest minimum mean temperature recorded was 16.4°C in Pandamatenga then 18.8°C in Jwaneng and at 18.9°C. Maun had the highest mean minimum temperature of 21.3°C, followed by Shakawe at 21.0°C (see map 4 & 5).

LONGTERM MINIMUM MEAN TEMPERATURES FOR FEBRUARY (1981 - 2010)



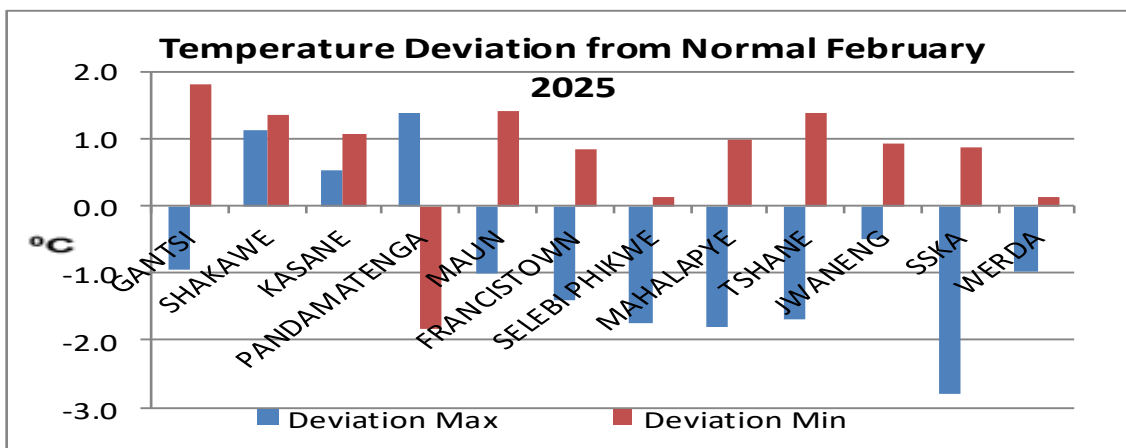
Mean Minimum Temperatures for February 2025



Map 4: Average minimum temperatures for February (1981-2010).

Map 5: February 2025 monthly minimum mean temperatures.

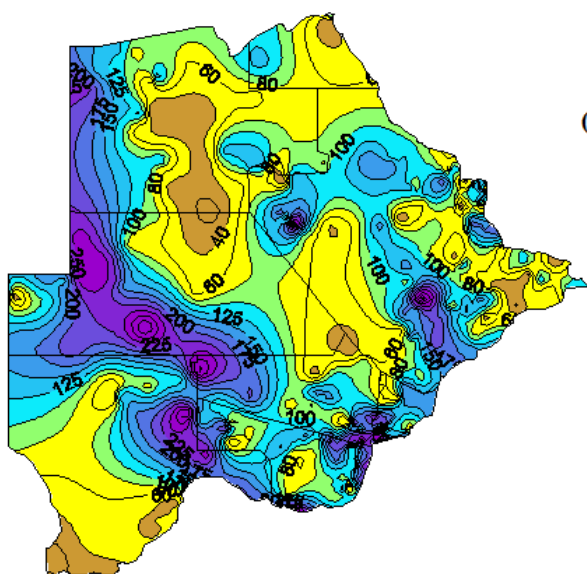
Because of the above normal rainfall received during February 2025, maximum mean temperatures were generally below normal. With the lowest deviation being -2.8°C at S.S.K.I.A followed by Mahalapye and Selebi Phikwe at -1.8°C each. Minimum temperatures were not affected much as they managed to maintain generally above normal mean temperatures. The highest deviation was Gantsi at $+1.8^{\circ}\text{C}$ followed by Tshane, Maun and Shakawe at $+1.4^{\circ}\text{C}$ each. Pandamatenga was the only exception with a deviation of -1.8°C (see graph 1).



Graph 1: Temperature deviation from Normal for February 2025.

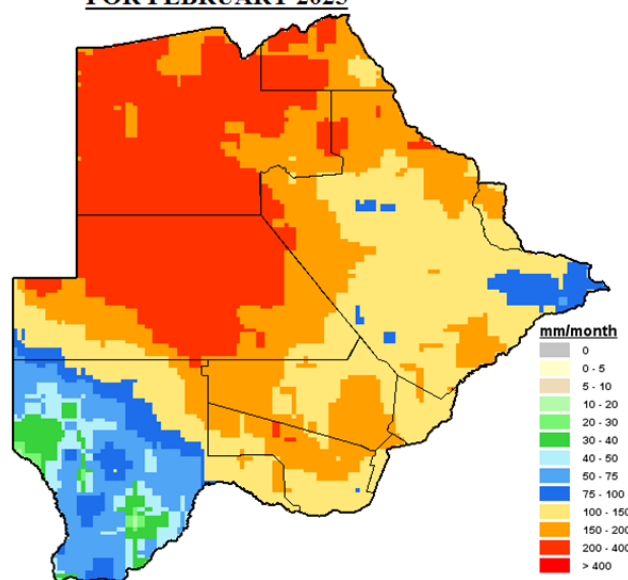
RAINFALL SITUATION

TOTAL RAINFALL FOR FEBRUARY 2025



Map 6: Total Rainfall for February 2025 (mm)

SATELLITE CUMULATIVE RAINFALL FOR FEBRUARY 2025

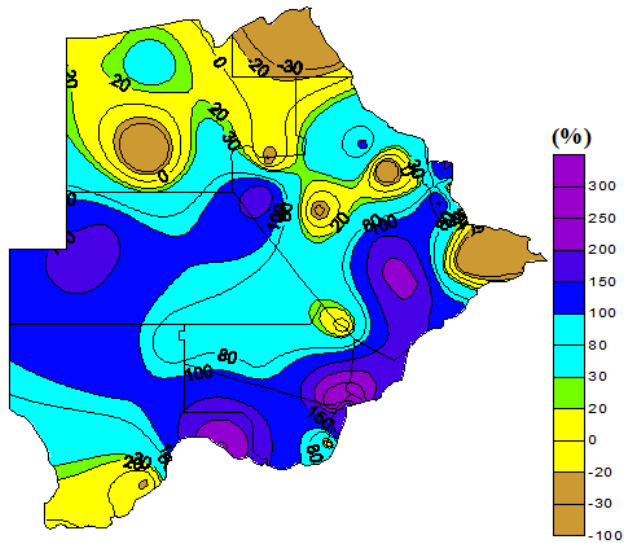


Map 7: Total Rainfall from Satellite for February 2025

The country received heavy rainfall with flooding in some districts. Gaborone city, Gantsi, Central District were among the badly affected areas as houses were water logged and bridges submerged by water. This rainfall was as a result of influx of tropical moisture. Maps 6 & 7 shows total distribution of rainfall across the country. Rainfall stations which recorded the highest totals in descending amounts are as follows; Mafitlhakgosi Primary School 496.0mm, Xhumo Primary School 373.5mm, Gaborone Game Reserve 373.0mm, St Bernard Primary School (Taung) 361.0mm, Mogoditshane Police 353.5mm, Kumakwane Primary School 343.0mm, Swaneng Hill School (Serowe) 341.0mm, Kacgae Primary School 337.5mm, Inalegolo Primary School 333.0mm, Tsetseng Primary School 322.0mm, Mogobane Primary School 307.9mm, Gaborone Village Met 302.0mm, Thamaga Police 289.5mm, Tlokweng Border 284.9mm, Chobokwane Artificial Insemination 277.0mm, Mogorosi Primary School 276.3mm, Ralekgetho Primary School 274.0mm, Serowe Police 273.0mm, Kokotshaa Primary School 270.4mm, Kgope Primary School 265.0mm, Sekgwasentsho Artificial Insemination 262.0mm, Groote Laagte Primary School 259.9mm, Sunny Side Ranch (near Lobatse) 251.0mm. Other locations recorded total rainfall amount less than 250.0mm.

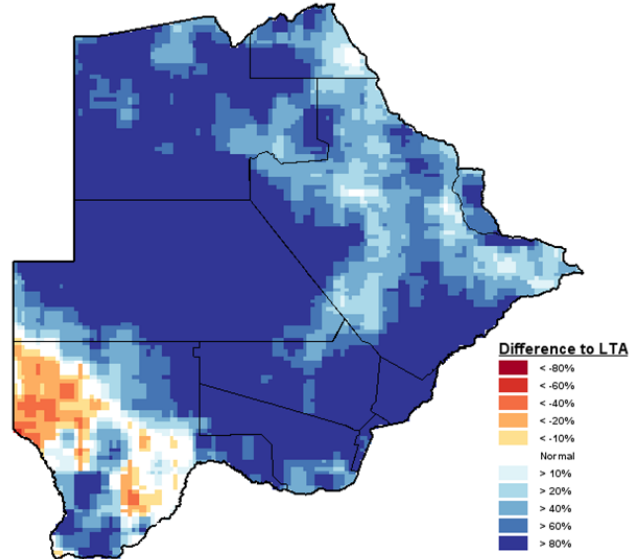
Generally the much of Botswana received normal to above normal rainfall. Map 8, ground station data show that some areas including, the Chobe, parts of Ngamiland and central Districts received much below normal rainfall, but this is because of data gaps which were not captured. The satellite image, map 9 shows that these areas did receive above normal rainfall. Parts of Kgalagadi where the only areas which received normal to below normal rainfall.

RAINFALL PERCENTAGE (%) DEPARTURE FROM NORMAL FOR FEBRUARY 2025



Map 8: Rainfall departure from Normal for February 2025 (%)

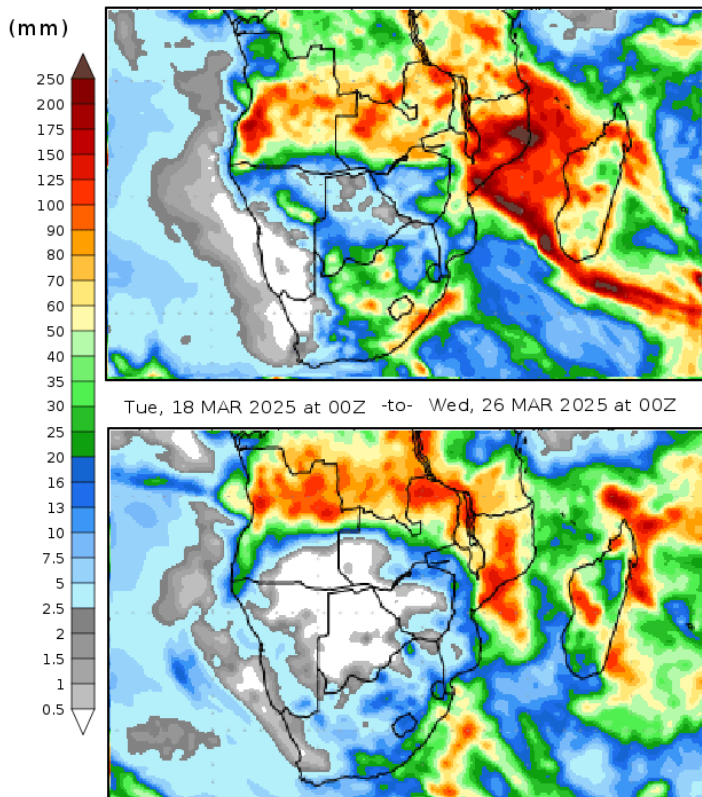
SATELLITE RAINFALL ANOMALY FOR FEBRUARY 2025



Map 9: Satellite rainfall departure from Normal for February 2025 (%)

2 WEEK CLIMATE OUTLOOK (10-26 MARCH 2025)

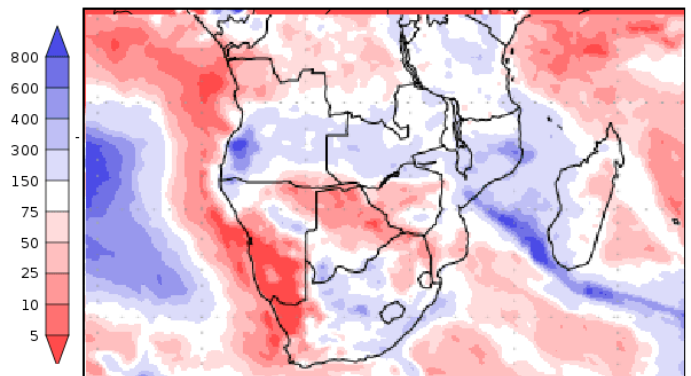
Mon, 10 MAR 2025 at 00Z -to- Tue, 18 MAR 2025 at 00Z



Precipitation Forecasts

Precipitation (% of normal) during the first period:

Mon, 10 MAR 2025 at 00Z Tue, 18 MAR 2025 at 00Z



Precipitation forecasts from the National Centers for Environmental Prediction. Normal rainfall derived from Xie-Arkin (CMAP) Monthly Climatology for 1979-2003. Forecast Initialization Time: 00Z10MAR2025

GrADS/COLA

For the first week of the outlook period (10-18 March 2025) rainfall is expected over most areas of the country, but during the second week (18-26) a dry spell is expected. Temperatures on the other hand are expected to be in the above normal range.

FARMERS TIPS

- Timely weeding and pest control is advised
- Farmers to take advantage of rainwater harvesting.
- Practice moisture conservation techniques.
- Fences have to be maintained to deter animals

Terms and Meaning:

Dekad: 10 day period.

Day: 24 hours

Normal Rainfall: Between -20% and 20 % of the average

Below Normal Rainfall: Rainfall below -21% to -30% of the average

Above Normal Rainfall: Rainfall in excess of 30% of the average

Much below Normal Rainfall: Rainfall below 30% of the average

Much above Normal Rainfall: Rainfall above 30% of the average

Scanty Rainfall: Less than 1 –10 mm (Relatively dry day)

Moderate Rainfall: 10 –25 mm (Relatively wet day)

Heavy Rainfall: 25-50 mm (Wet day)

Very heavy Rainfall: Greater than 50 mm (Excessively wet day)

Probability of 30 %: Isolated (Low Chance)

Probability of 40-60 %: Scattered (Moderate Chance)

Probability greater than 70%: Widespread (High Chance)

Users are advised to contact the DMS for further interpretation, updates and additional guidance.

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Our Vision: A modern weather service that nurtures and harbours innovation and creativity in the provision of quality weather and climate information

