

FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA
ETHIOPIAN METEOROLOGICAL INSTITUTE
 METEOROLOGICAL DATA AND CLIMATOLOGY LEAD EXECUTIVE
REMOTE SENSING AND CLIMATOLOGICAL DESK

MONTHLY CLIMATE BULLETIN

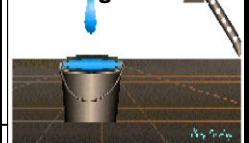
February 2025

*Some Applications of
Climate Information*

Disaster Management



**Water Resources
Management**



Construction



Environment & Health



Transport



Recreation & Tourism

HIGHLIGHTS

During February 2025, days remained warm over several portions of the lowlands of Ethiopia, particularly over Gambella, Somali, Benishangul regions, Western Amhara, and Afar. Specifically, the extreme maximum temperature values were as high as 44, 43.5, 42.4, 42.2, 42, 40, 39.8, 39.4 and 39 °C over Lare, Fugnuido, Gode, Metema, Gambella, Metehara (NMSA), Yabelo, Gewane, and Pawe station respectively.

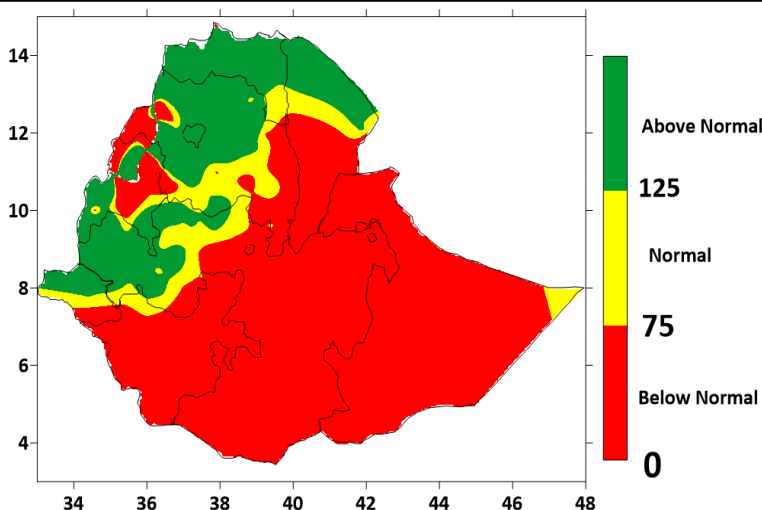
On the other hand, the extreme minimum temperature values were below 5° °C cover some highland parts of Amhara, some part of Oromia and central Ethiopia. Specifically, the extreme minimum temperature values were 0, 0.1, 1.2, 1.6, 1.6, 2, 2, 3, 3, 3, 3.4, 3.6, 4, 4.2, 4.6, 4.6, and 4.8 °C over Debere Tabor, Jijiga, Sholagebaya, Alemaya, Debere Brehan, Arise Robe, Mehalmeda, Bui, Wegeltena, Wereilu, Bati, Ambamariam, Jimma, Alemketema, Robe Ambo, Imdiber respectively.

In General, the monthly average temperature values were partially color than normal and partially warmer than normal over most parts of the country.

Normally, February is one of the months of the dryer season of Belg (FMAM) for most of the country except the southern south east and south western. The mean monthly rainfall amount exceeds 35 mm over many areas of south southwest and southeast parts of the country.

During February 2025, the monthly rainfall amount exceeded 50 mm, or heavier rainfall was occurring over the North, northwest, and northeast parts of Ethiopia.

In general, the monthly total rainfall amount of February 2025 was below normal over part of Somali, central Ethiopia, southwest Ethiopia, southwest Ethiopia, most part of Oromia and some part of Amhara regions. On the other hand, it was above normal over Tigray, Amhara, Afar, Western Oromia, Gambella and few areas of Benishangul Gumuz regions. Current rainfall normal in Some part of Gambella, Oromia, Amhara, Tigray, Afar and pocket areas of Somali regions



Percent of normal rainfall of February 2025

Foreword

This climate bulletin is prepared and disseminated by the Ethiopia Meteorological Institute (EMI). It is aimed at providing climatological information to different services of the community involved in various socio-economic activities.

The information contained in this bulletin is believed to assist planners, decision-makers and the community at large by providing details of the climatic conditions of the nation in a given period.

This bulletin differs from the other real time and near real time bulletins issued by the Agency, which for their input depend only on meteorological stations equipped with single side band radio for data transmission. Though this bulletin is not real time, published with a delay of at least two months, the information contained in this bulletin is based on data coming from a much larger number of meteorological stations. Moreover, the information contained in this bulletin is not sector-specific and a wide range of users can benefit from it. The Agency disseminates monthly, seasonal and annual climatological bulletins in which all-necessary climatological information and significant climatic anomalies are highlighted.

We have a strong belief that various socio-economic activities related to planning disaster mitigation, water resources management, construction, environmental protection, transportation, recreation, tourism and others will be benefited most by the careful and continuous use of this bulletin. Meanwhile, your comments and constructive suggestions are highly appreciated to make the objectives of this bulletin success.

Fetene Teshome

Director General of EMI

P.O. Box 1090

Tel: 011-551 22 99 /+011-551-22-99

Fax : +251-11-558-66-43/+251-11-558-7910

E-mail: emi@ethiomet.gov.et

Addis Ababa

1. Synoptic Situation

1.1 Surface

The Mascarene high with a mean central pressure value of above 1020hPa was centered at about 35°S, 95°E.

The St. Helena high with a mean central pressure value of above 1020hPa was centered at about 31°S, 15°W.

The Azores high, with a mean central pressure value of 1020hPa, was centered at about 35°N, 45°W.

1.2 Lower Troposphere (850 hPa vector wind)

Northeasterly Trade Winds with speeds of 0–12 m/s were observed over the Indian Ocean, while easterly winds dominated the Arabian Sea.

1.3 Upper Troposphere (200 hPa vector wind)

The westerly wind, associated with the subtropical westerly jet, had 0–15 m/s and strengthened further, while the upper-level easterly flow, associated with the tropical easterly jet weakened further.

2. Tropical Oceanic and Atmospheric Highlights

During February 2025, sea surface temperatures (SSTs) were below-average across the central and east-central equatorial Pacific and above-average in the far eastern equatorial Pacific.

The latest monthly Niño indices were +0.7°C for the Niño 1+2 region, -0.4°C for the Niño 3.4 region and -0.6°C for the Niño 4 region. The depth of the oceanic thermocline (measured by the depth of the 20°C isotherm) was below-average across the east-central and

eastern equatorial Pacific. The corresponding sub-surface temperatures were 1–5°C below-average in most of the eastern equatorial Pacific **Reference: NOAA, climate diagnostic bulletin of February 2025**

3. Weather

3.1 Temperature

During February 2025, days remained warm over several portions of the lowlands of Ethiopia, particularly over Gambella, Somali, Benishangul regions, Western Amhara, and Afar (Fig. 3.1.2). Specifically, the extreme maximum temperature values were as high as 44, 43.5, 42.4, 42.2, 42, 40, 39.8, 39.4 and 39 °C over Lare, Fugnido, Gode, Metema, Gambella, Metehara (NMSA), Yabelo, Gewane, and Pawe station respectively (Table 3.1.1).

On the other hand, the extreme minimum temperature values were below 5° °C cover some highland parts of Amhara, some part of Oromia and central Ethiopia. Specifically, the extreme minimum temperature values were 0, 0.1, 1.2, 1.6, 1.6, 2, 2, 3, 3, 3, 3.4, 3.6, 4, 4.2, 4.6, 4.6, and 4.8 °C over Debere Tabor, Jijiga, Sholagebaya, Alemaya, Debere Brehan, Arise Robe, Mehalmeda, Bui, Wegeltena, Wereilu, Bati, Ambamariam, Jimma, Alemketema, Robe, Ambo, Imidiber respectively (Table 3.1.2).

In General, the monthly average temperature values were partially cooler than normal and partially warmer than normal over most parts of the country (Fig. 3.1.3).

Table 3.1.1 Stations with extreme maximum temperature values of greater than or equal to 39⁰c during February2025

Stations	Extreme maximum temperature (°c)	Date
Pawe	39	25
Gewane	39.4	24
Yabelo	39.8	1
Metehara (NMSA)	40	20
Gambella	42	21
Metema	42.2	15
Gode	42.4	22
Fugnuido	43.5	22
Lare	44	19

Table 3.1.2 Stations with extreme minimum temperature values of below 5⁰c during February2025

Stations	Extreme minimum temperature (°c)	Date
D/Tabor	0	1
Jijiga	0.1	5
Sholagebaya	1.2	4
Alemaya	1.6	5
D/Brehan	1.6	4
Arise Robe	2	6
Mehalmeda	2	6
Bui	3	4
Wegeltena	3	5
Wereilu	3	5
Bati	3.4	6
Ambamariam	3.6	24
Jimma	4	26
Alemketema	4.2	4
Robe	4.6	4
Ambo	4.6	20
Imdiber	4.8	7

3.2 Rainfall

Normally, February is one of the drier months of Belg season (FMAM) for most of the country except the southern south east and south western. The mean monthly rainfall amount exceeds 35 mm over many areas of south, southwest and southeast parts of the country.

During February 2025, the monthly rainfall amount exceeded 50 mm, or heavier rainfall was occurring over the North, northwest, and northeast parts of Ethiopia.

In particular, the monthly total rainfall values of February 2025 were as high as 71.2, 69.6, 60.1, 53.9, and 53.6 mm over Gatira, Dembidolo, Amdework, D/Tabor and Arejo stations respectively. The daily rainfall values more than 30mm were observed over Aidermqo, D/Tabor, Atsebi, and Amdework stations and the values were 39.1, 40, 46.2, and 58.2, respectively (Tables 3.2.1).

In general, the monthly total rainfall amount of February 2025 was below normal over part of Somali, central Ethiopia, southwest Ethiopia, southwest Ethiopia, most part of Oromia and some part of Amhara regions. On the other hand, it was above normal over Tigray, Amhara, Afar, Western Oromia, Gambella and few areas of Benishangul Gumuz regions. Current rainfall was normal in some part of Gambella, Oromia, Amhara, Tigray, Afar and pocket areas of Somali regions (Fig. 3.2.2).

Tigray, Afar, Benishangul Gumuz, some part of Somali, and Amhara regions February2025 rainfall were wetter than February 2024. On the other hand, South Ethiopia, Central Ethiopia, south west Ethiopia, most part of Oromia, Amhara, some part of Gambella, Afar, Somali and pocket areas of Amhara and Tigray regions February2025 was drier than February2024 rainfall (Fig. 3.2.3).

Table 3.2.1. Stations with more than 25mm of rainfall in 24 hours during February2025

Stations	Amount (mm)	Date
Aidermqo	39.1	15
D/Tabor	40	1
Atsebi	46.2	15
Amdework	58.2	16

Table 3.2.2. Stations with more than 50 mm of monthly total rainfall during February2025

Station	Amount
Arejo	53.6
D/Tabor	53.9
Amdework	60.1
Dembidolo	69.6
Gatira	71.2

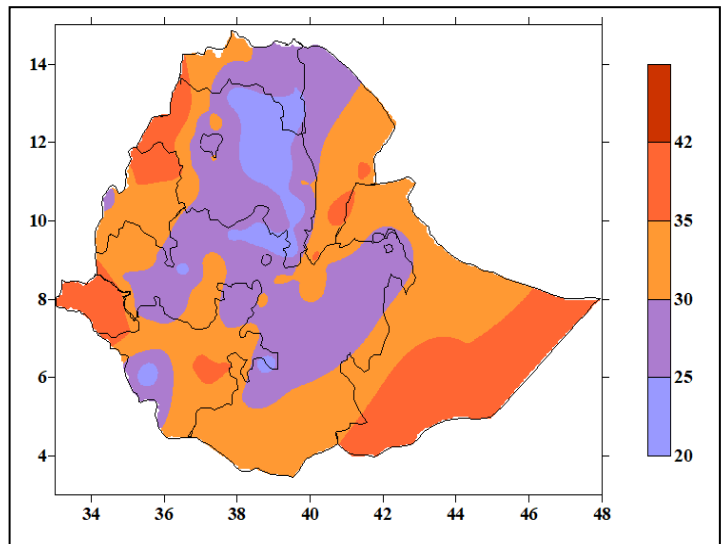


Fig. 3.1.2. Mean maximum temperature in °c during February2025

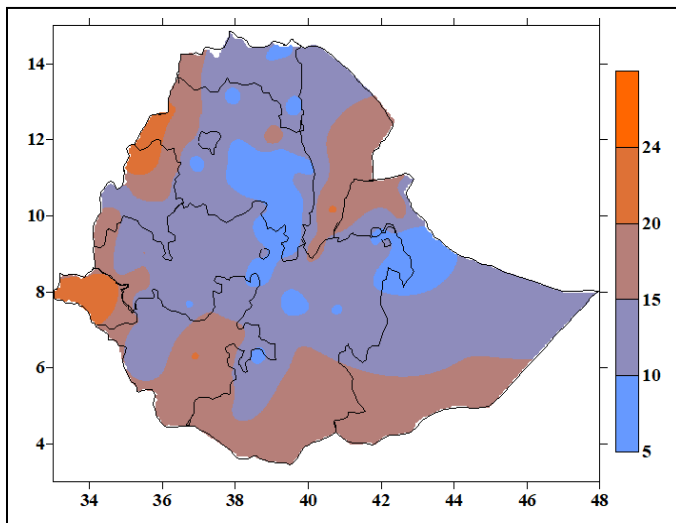


Fig. 3.1.1. Mean minimum temperature in °c during February2025

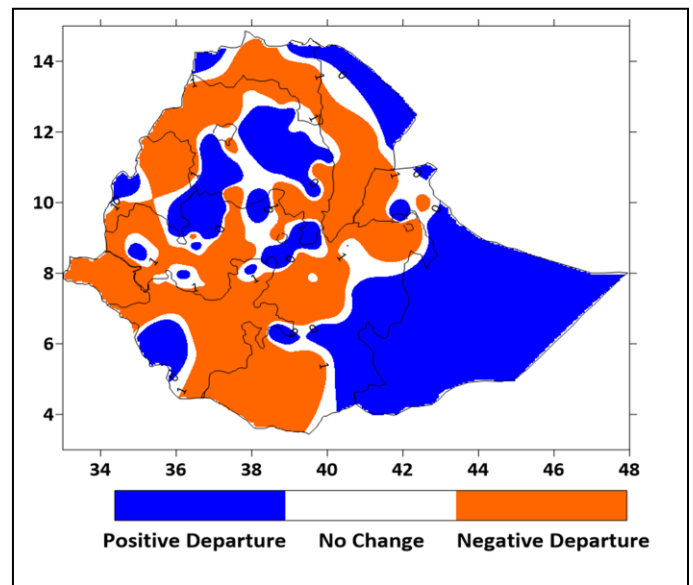


Fig.3.1.3. Departure of monthly average temperature from normal during February2025

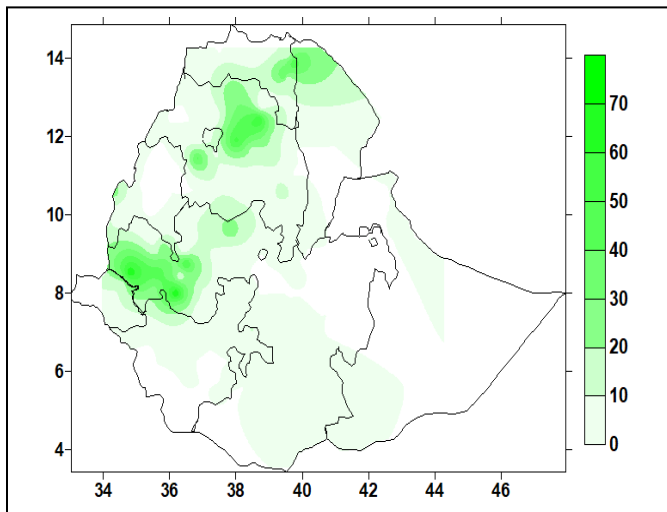


Fig.3.2.1. Monthly total rainfall in mm during February2025

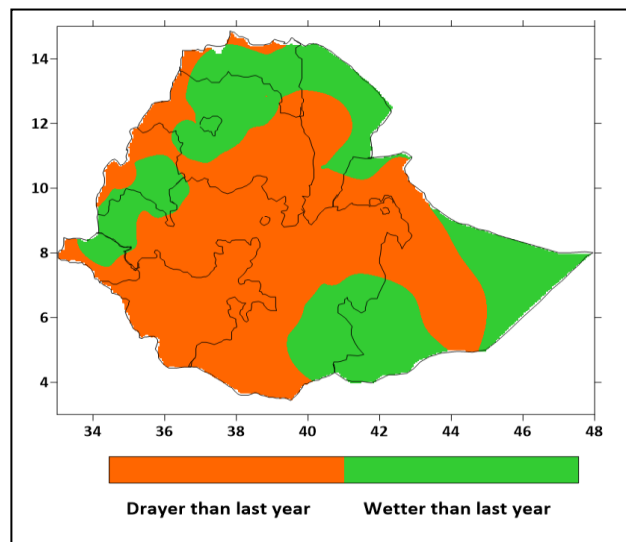


Fig. 3.2.3. Monthly total rainfall of February2025 minus monthly total rainfall of February2024

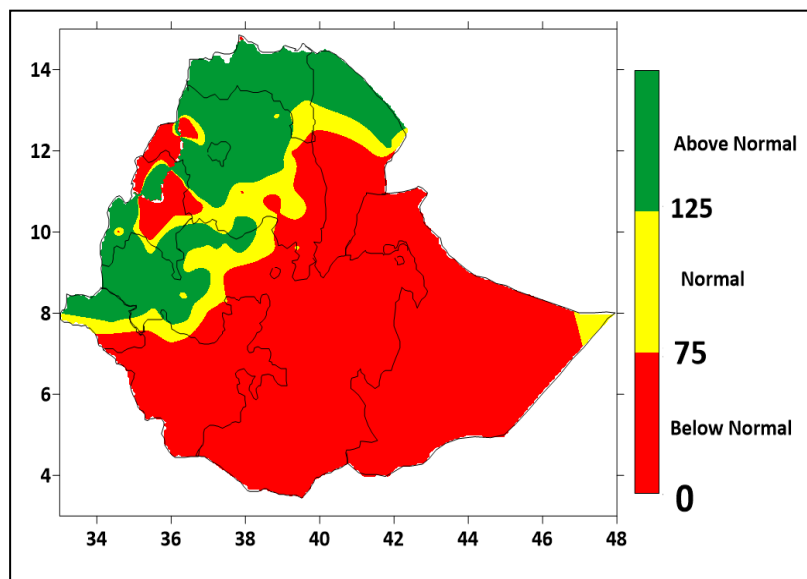


Fig. 3.2.2. Percent of normal rainfall during February2025