FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

ETHIOPIAN METEOROLOGICAL INSTITUTE

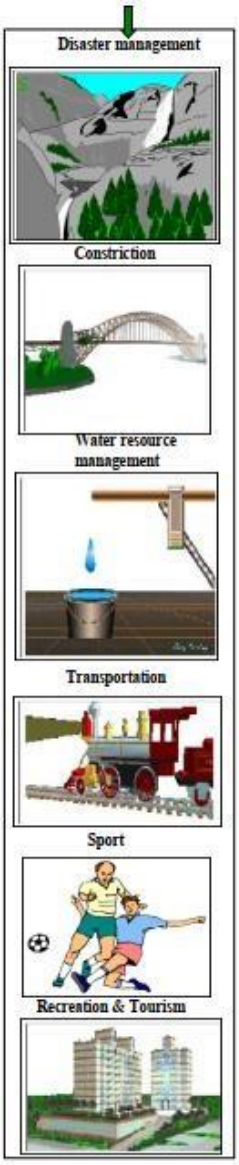
METEOROLOGICLA DATA AND CLIMATOLOGYLEAD LEAD EXECUTIVE

REMOTE SENSING AND CLIMATOLOGICAL DESK

MONTHLY CLIMATE BULLETIN

October 2025

Some Applications of Climate Information



HIGHLIGHTS

During October 2025, days remained warm over some portions of Ethiopia, particularly over most of Afar, Somalia Gambela western Amhara, southern and central Oromia, and central western and southern parts of SNNP regions (Fig. 3.1.2). Specifically, the extreme maximum temperature values were as high as 3, 3, 37, 37.5, 37.8, 38.4., 39.8, 40.5, and 42.6 ^{O}C over Kibridahar, Dalifagi, Metehara (NMSA), Awash Arba, Metema, Gode, Gewane, Aysha, and Semera respectively (Table 3.1.1).

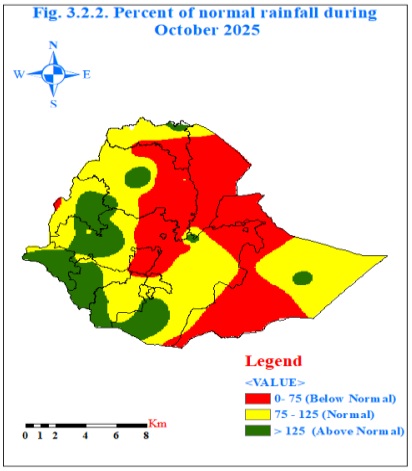
Normally, October is one of the months of the dryer season of Bega (ONDJ) for most parts of the country except the southern southeast and southwestern. The total monthly rainfall amount exceeds 250 mm in some areas of western southeastern Ethiopia.

In particular, the monthly total rainfall values of October 2024 were as high as 258, 272.8. 294.4, 305.2, 309.4, 351.4, and 363.7 mm over, Caging, Chaka, Gore, Bore, Arejo, Bure, and Bullen (Tables 3.2.2).

In general, the monthly total rainfall amount of October 2025 was below normal over most of Afar and, eastern and central oromia western and north Somalia southern Tigray , and pocket areas of Benishangul gumuz On the other hand, it was above normal in most of Gambella ,eastern Benishangul Gumuz, western Gmbela, western Oromia western, Oromia and some pocket areas of Somalia , Tigray , Amhara finally Normal rainfall condition was experiance4d over most of eastern Somalia central Oromia western SNNP and some poke tares of Gambela region (Fig. 3.2.2).

Most parts of the Oromia, western Somalia south and northern afar, western Tigray, central and southeast and north western Amhara central and eastern Benishangul , pocket areas Gambela, and Oromia region southern and most of SNNP, were dryer than October climatological normal rainfall the other areas was wetter than October climatological normal rainfall (Fig. 3.2.2)

Fig. 3.2.2. Percent of normal rainfall during October 2025



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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 in this bulletin is believed to assist planners, decision-makers, and the community at large by providing details of the nation's climatic conditions over 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 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 strongly believe that various socio-economic activities related to planning disaster mitigation, water resources management, construction, environmental protection, transportation, recreation, tourism, and others will benefit 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.

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1. Synoptic Situation

1.1 Surface

The Mascarene high with a mean central pressure value of above 1020hPa was centered at about 32°S, 75E.

The St. Helena high with a mean central pressure value of above 1020hPa was centered at about 38°S, 8°W.

The Azores high with a mean central pressure value of 1016 hPa was centered at about 33N, 10°W.

1.2 Lower Troposphere (850 hP vector wind).

Strong cross-equatorial and northeasterly flow of below 0-8 m/s was observed over the northern and western Indian Ocean and southeasterly, northeasterly, and easterly, flow was dominant over the Arabian Peninsula

1.3 Middle Troposphere (500-hPa Geo-potential height).

When analyzing the Geopotentioal height from the Climate Diagnostics Bulletin in October 2024, the fluctuation 500-hPa Geo- -potential height values over central and eastern Africa was 3 to 15 pm.

1.4 Upper Troposphere (200 hPa vector wind).

Equatorial stronger easterly westerly winds 0-15 m/s were dominating in most of the horn of Africa. The subtropical easterly jet had weakened further, while the upper-level westerly flow, associated with the tropical westerly jet weakened further.

2. Tropical Oceanic and Atmospheric Highlights

During October 2024, sea surface temperatures During October 2025, sea surface temperatures (SSTs) were below average across the central and eastern equatorial Pacific. The latest monthly Niño indices were 0.0°C for the Niño 1+2 region and -0.5°C for the Niño 3.4 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 1-4°C below-average in the eastern equatorial Pacific.

Reference: NOAA, climate diagnostic Bulletin of October 2025

3. Weather

3.1 Temperature

During October 2025, days remained warm over some portions of Ethiopia, particularly over most of Afar, Somalia Gambela western Amhara, southern and central Oromia, and central western and southern parts of SNNP regions (Fig. 3.1.2). Specifically, the extreme maximum temperature values were as high as 3, 3, 37, 37.5, 37.8, 38.4., 39.8, 40.5, and 42.6 ^{O}C over Kibridahar, Dalifagi, Metehara (NMSA), Awash Arba, Metema, Gode, Gewane, Aysha, and Semera respectively (Table 3.1.1).

On the other hand, the extreme minimum temperature values were below 5.5 OC cover some parts of Amara, oromia and Somalia Specifically, the extreme minimum temperature values were as high 2.4, 3, 3, 3, 3, 3.4, 3.6, 5, 5.4, 5.5, 5.5, and 5.5 ^{O}C over KD/Brehan, Alemaya, Bui, Jijiga, Sholagebaya, Ambamariam, Wegeltena, Mehalmeda, Bati, D/Tabor, Debark, and Debrezeit(Af) respectively (Table 3.1.2).

In general, during October 2025 the monthly average temperature values were partially colder than normal over most parts of Somalia some poke areas of Tigrai, Amhara, Benishagul gumuz. South eastern oromia and SNN and on the other had most areas of the region experienced warmer temperature comparing from the climatological normal except Somalia regions across the country (Fig. 3.1.3).

Table 3.1.1 Stations with extreme maximum temperature values of greater than or equal to 36^0c during October 2025

Stations	Extreme Maximum Temperature (^{O}c)	Date
Kibridahar	36	26 & 29
Dalifagi	36	7
Metehara (NMSA)	37	25
Awash Arba	37.5	25,30
Metema	37.8	30
Gode	38.4	
Gewane	39.8	28
Aysha	40.5	7
Semera	42.6	2

Table 3.1.2 Stations with extreme minimum temperature values of below or equal to 5.5 ^{o}c during October 2025

Stations	Extreme minimum temperature (oc)	Date
D/Brehan	2.4	23
Alemaya	3	30
Bui	3	19,25 &30
Jijiga	3	29
Sholagebaya	3	16
Ambamariam	3.4	12
Wegeltena	3.6	30
Mehalmeda	5	26
Bati	5.4	30
D/Tabor	5.5	23
Debark	5.5	23
Debrezeit(Af)	5.5	30

3.2 Rainfall

Normally, October is one of the months of the dryer season of Bega (ONDJ) for most parts of the country except the southern southeast and southwestern. The total monthly rainfall amount exceeds 250 mm in some areas of western southeastern Ethiopia.

In particular, the monthly total rainfall values of October 2024 were as high as 258, 272.8. 294.4, 305.2, 309.4, 351.4, and 363.7 mm over, Caging, Chaka, Gore, Bore, Arejo, Bure, and Bullen (Tables 3.2.2).

The daily rainfall of more than 50mm values observed over Gambella, Aman, Tepi, Gore, Limugenet, Yabelo, Bure, Nekemte, D/Tabor, and Masha stations was 51.8, 54.6, 54.8, 55.6, 57.5, 66.4, 70.7, 76, 8, and 90.2 at the data of 20^{th} , 31^{st} , 3^{rd} , 11^{th} , 8^{th} , 15^{th} , 22^{nd} , 10^{th} , 21^{st} , and 16^{th} respectively(Tables 3.2.1).

In general, the monthly total rainfall amount of October 2025 was below normal over most of Afar and, eastern and central oromia western and north Somalia southern Tigra , and pocket areas of Benishangul gumuz On the other hand, it was above normal in most of Gambella ,eastern Benishangul Gumuz, western Gmbela, western Oromia western, Oromia and some pocket areas of Somalia , Tigrai , Amhara finally Normal rainfall condition was experiance4d over most of eastern Somalia central Oromia western SNNP and some poke tares of Gambela region (Fig. 3.2.2).

Most parts of the Oromia, western Somalia south and northern afar, western Tigray, central and southeast and north western Amhara central and eastern Benishangul , pocket areas Gambela, and Oromia region southern and most of SNNP, were dryer than October climatological normal rainfall. On the other hand, central Afar, northern central and western Oromia north and north-western SNNP eastern Benishangul Gumuz most of Gambela most of Tigray, eastern Somalia and north eastern Amhara during October 2025 was wetter than October climatological normal rainfall (Fig. 3.2.2)

Table 3.2.1. Stations with more than 50 mm of rainfall in 24 hours during October 2025.

Name	Amount	Date
Gambella	51.8	20
Aman	54.6	31
Tepi	54.8	3
Gore	55.6	11
Limugenet	57.5	8
Yabelo	66.4	15
Bure	70.7	22
Nekemte	76	10
D/Tabor	81	21
Masha	90.2	16

Table 3.2.2. Stations with more than 250mm of monthly total rainfall during October 2025.

Name	Amount
Chagini	258
Chewka	272.8
Gore	294.4
Bore	305.2
Arejo	309.4
Bure	351.4
Bullen	363.7

Table 3.1.3. Stations with an extreme maximum temperature ever recorded valuesduring October 2025.

Name	Previous Record	New Record	Date
Adelle	24.6	26	30
Yitnora	27.2	27.8	30
Alemaya	28.5	30	14
Semera	42.2	42.6	2
Yabelo	29.8	33.6	8

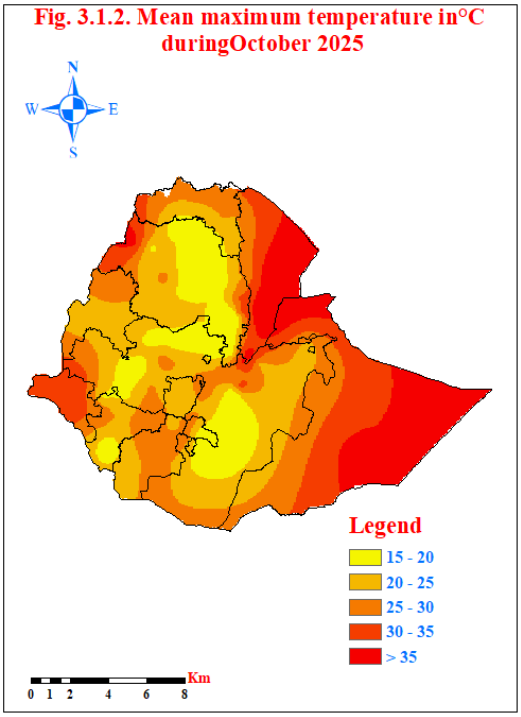

Fig. 3.1.2. Mean maximum temperature in°C duringOctober 2025

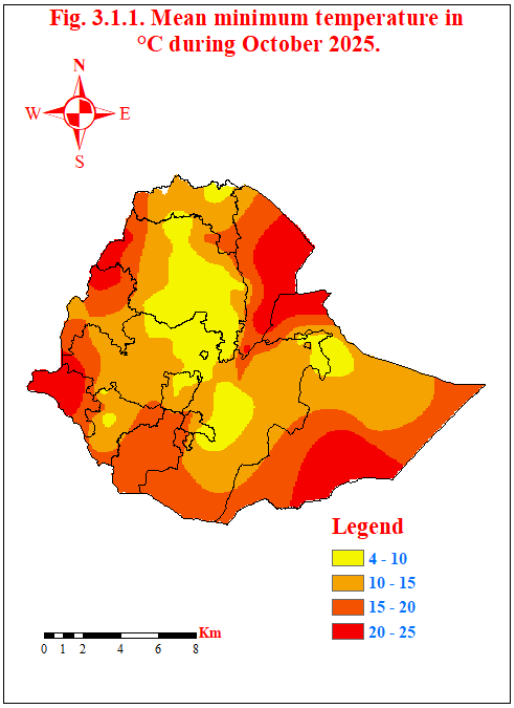

Fig. 3.1.1. Mean minimum temperature in °C during October 2025.

Fig.3.1.3. Departure of monthly average temperature from normal during October 2025.

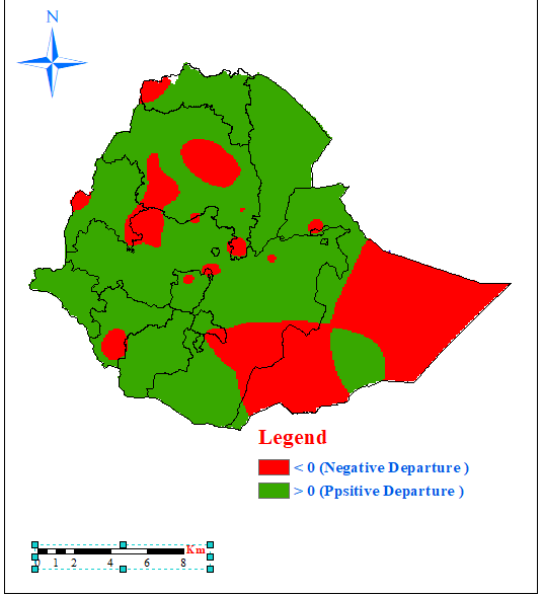

Fig. 3.2.2. Percent of normal rainfall during October 2025

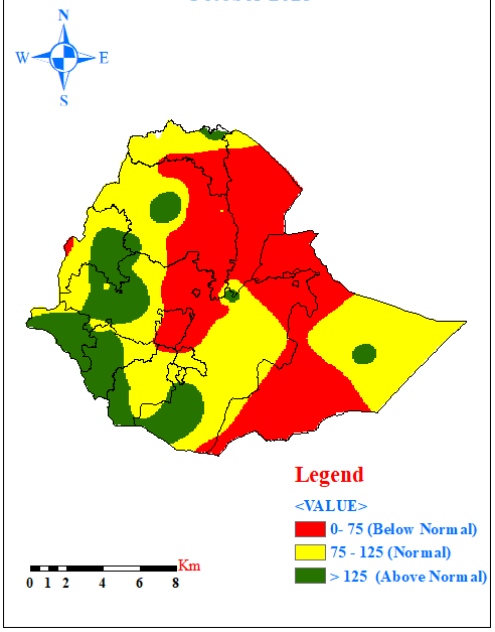

Fig.3.2.1. Monthly total rainfall in mm during October 2025.

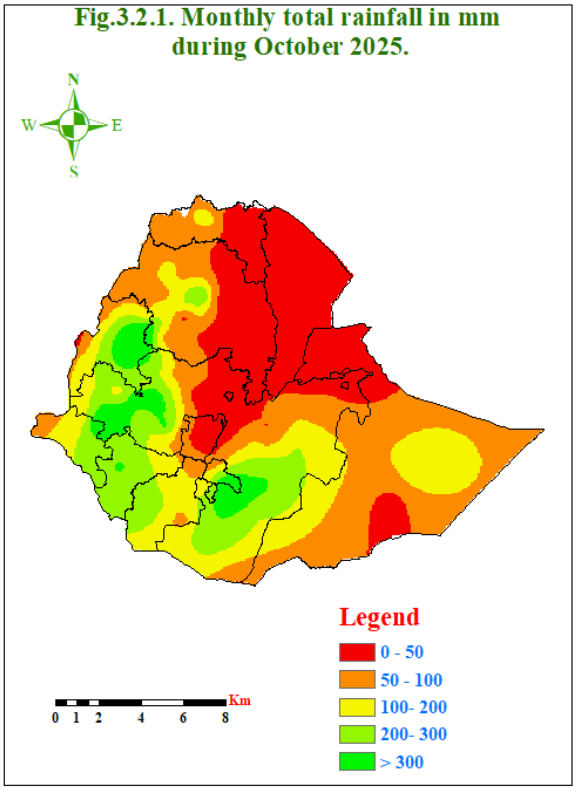

Fig. 3.2.3. Monthly total rainfall of October 2025 minus monthly Total rainfall of October 2024