FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

ETHIOPIAN METEOROLOGICAL INSTITUTE

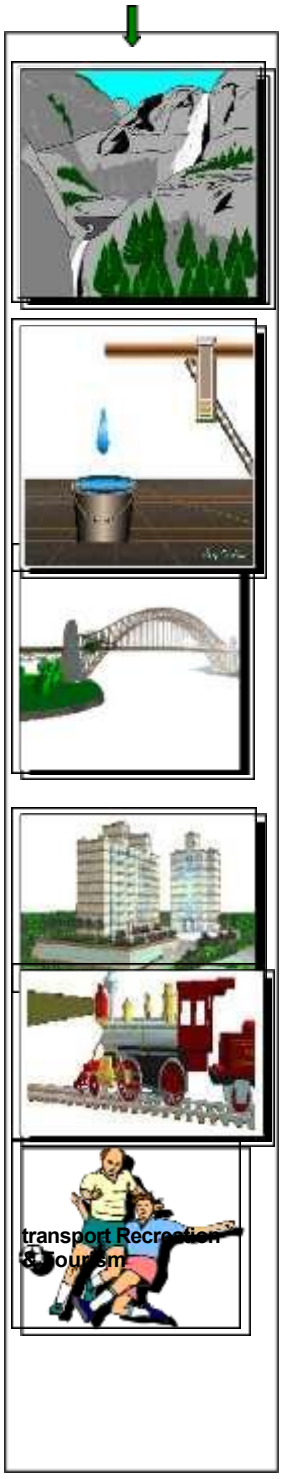
METEOROLOGICAL DATA AND CLIMATOLOGY LEAD EXECUTIVE

REMOTE SENSING AND CLIMATOLOGICAL DESK

MONTHLY CLIMATE BULLETIN

JULY 2025

Some Applications of Climate Information



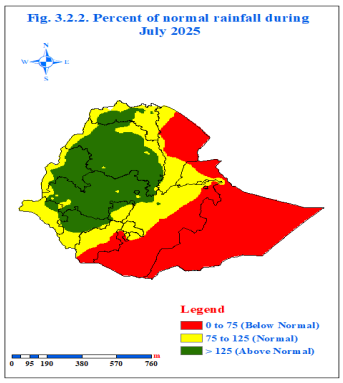
Transport, recreation, & tourism

HIGHLIGHTS

During July 2025, days remained warm over several parts of the Ethiopian lowlands, such as, Somali and Afar regions (Fig. 3.1.2). Specifically, the extreme maximum temperature values were as high as 45.8, 45, 42.5, 41.5, 40.4, 40, 39, 39, 38.8, 37.6 Elidar, Semera, Awash Arba, Aysha, Metehara (NMSA), Dalifagi, Chifra, Gode, Dire Dawa, and Kibridahar stations, respectively (Table 3.1.1).On the other hand, the extreme minimum temperature values of below 7.5°C were recorded in some highland areas of Amhara, Central Ethiopia, and Tigray regions (Fig. 3.1.1). Specifically, the extreme minimum temperature values 3.5, 5, 5, 5.2, 5.4, 7.3, and 7.5 for Debre Zeit, Alemketema, Amba Mariam, Amdework, Bui, Nefasmewuch and Sholagebeya stations, respectively (Table 3.1.2).

July is one of the months of the main rainy season, Kiremt (JJAS), for most parts of the country. The mean monthly rainfall amount exceeds 370 mm in the northern, western, and central parts of the country. During July 2025, the monthly rainfall amount exceeded 370 mm, or heavier rainfall was occurring over Amhara, Tigray, Gambela, Benshangul Giumz, Central Ethiopia, South West Ethiopia, and Western and Central Oromia regions (Fig. 3.2.1). The daily rainfall of more than 60mm was observed over Gambela, Limugenet, Nazareth, Awash Arba, Aman, Sekoru, Fugnuido, Fiche, and Bahir Dar Met.Adigrat, Nura-Era, Bedelle stations (Table 3.2.1).

Overall, the total rainfall in July 2025 was below normal in Afar, most of the Somalia region, south and southeast Oromia, and southern parts of the region, while most of the Amhara region, Benishangul-Gumuz, western Oromia, and parts of Gambela, as well as central and northern sections of South-Southwest Ethiopia, received above-normal rainfall. Normal rainfall was observed in western and eastern Tigray, some areas of Amhara, north and south Afar, western Benishangul-Gumuz, most parts of Gambela, east Oromia, and northwestern parts of the southern regions.



Percent of normal rainfall for July 2025

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Foreword

This climate bulletin is prepared and disseminated by the Ethiopian Meteorological Institute (EMI). It aims to provide climatological information to various community services involved in socio-economic activities and highlight major synoptic situations.

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 each period.

This bulletin differs from the other real-time and near-real-time bulletins issued by the Institute, which, for their input, depend only on meteorological stations equipped with single-sideband 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 Institute 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 benefit most from the careful and continuous use of this bulletin. Meanwhile, your comments and constructive suggestions are highly appreciated to make the objectives of this bulletin successful.

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1. Synoptic Situation

1.1 Surface

The Mascarene High, with a mean central pressure above 1020hPa, was centered around 35°S, 60°E.

The St. Helena high, with a mean central pressure value of above 1020hPa, was centered at about 32°S, 5°W.

The Azores high, with a mean central pressure value of 1020hPa, was centered at about 38°N, 30°W.

1.2 Lower Troposphere (850 hPa vector wind)

Easterly flow with below 0 – 12 m/s mean vector wind flow was originated from the Mediterranean Sea and the Indian Ocean

1.3 Middle Troposphere (500-hPa Geopotential height)

Cross-equatorial and southeastern flow of above 3 to 9 m/s was observed over the northern and western Indian Ocean, Arabian Sea, and the adjoining areas of the Horn of Africa..

1.4 Upper Troposphere (200 hPa vector wind)

The westerly wind, associated with the Subtropical westerly jet, had 0- 30 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

In July 2025, sea surface temperatures (SSTs) were near normal across much of the equatorial Pacific. The latest monthly Niño indices were +0.5°C for the Niño 1+2 region and -0.1°C for the Niño 3.4 region. The oceanic thermocline depth, measured by the 20°C isotherm, was slightly below average in the east-central and eastern equatorial Pacific. Also, during July, lower-level wind

anomalies were easterly over most of the equatorial Pacific, while upper-level wind anomalies were westerly over the west-central and eastern parts of the equatorial Pacific. Meanwhile, tropical convection was stronger over Indonesia. Overall, these oceanic and atmospheric anomalies indicate ENSO-neutral conditions.

Reference: NOAA, Climate Diagnostic Bulletin of July 2025

3. Weather

3.1 Temperature

During July 2025, days remained warm over several parts of the Ethiopian lowlands, such as, Somali and Afar regions (Fig. 3.1.2). Specifically, the extreme maximum temperature values were as high as 45.8, 45, 42.5, 41.5, 40.4, 40, 39, 39, 38.8, 37.6 Elidar, Semera, Awash Arba, Aysha, Metehara (NMSA), Dalifagi, Chifra, Gode, Dire Dawa, and Kibridahar stations, respectively (Table 3.1.1).

On the other hand, the extreme minimum temperature values of below 7.5°C were recorded in some highland areas of Amhara, Central Ethiopia, and Tigray regions (Fig. 3.1.1). Specifically, the extreme minimum temperature values 3.5, 5, 5, 5.2, 5.4, 7.3, and 7.5 °C for Alemketema, Amba Mariam, Sholagebaya, D/Tabor, BuiL Lalibela, Nefasmewucha (Table 3.1.2).

Generally, the July 2025 Mean monthly temperature values were slightly cooler than normal in Amhara, Somalia, and some areas of Oromia and Tigray. On the other hand, temperatures were warmer than normal over

most of Tigray, central Amhara, northern Somalia, and most parts of Oromia, as well as the South West Ethiopia regions. (Fig. 3.1.3).

Table 3.1.2 Stations with extreme minimum temperature values of below or equal to 7.5 °C during July 2025

Stations	Extreme minimum temperature (˚C)	Date
Alemketema	3.5	8
Ambamariam	5	24
Sholagebaya	5	18
D/Tabor	5.2	14
Bui	5.4	1
Lalibela	7.3	24
Nefasmewucha	7.5	12

Table 3.1.1 Stations with extreme maximum temperature values of greater than or equal to 37°C during July 2025.

Stations	Extreme maximum temperature (ºc)	Date
Elidar	45.8	6\12\15
Semera	45	1
Awash Arba	42.5	1
Aysha	41.5	1=2-24
Metehara (NMSA)	40.4	1
Dalifagi	40	1
Chifra	39	1
Gode	39	27
Dire Dawa	38.8	29
Kibridahar	37.6	1\7

Table 3.1.3. New records of maximum temperature during July 2025

Name	Previou record	New recor	Dat
Alemaya	29	30.4	22
Bahir Da New	29.5	29.6	12
Dire Dav	38.6	38.8	29
Elidar	45	45.8	2
Gode M	38.2	39	27
Limu Genet	30	27.5	22
Metehar (NMSA)	40	40.4	1

Table 3.1.4. New records of minimum temperature during July 2025

Name	Previous record	New record	Date
Chewaka	12.4	8	15
Chifra	18.5	16.5	30
Sawula	14.5	14.4	20
Tsitsika	13.4	13	23

3.2. Rainfall

July is one of the months of the main rainy season, Kiremt (JJAS), for most parts of the country. The mean monthly rainfall amount exceeds 370 mm in the northern, western, and central parts of the country.

During July 2025, the monthly rainfall amount exceeded 370 mm, indicating heavier rainfall occurred over the Amhara, Tigray, Gambela, Benshangul Giumz, Central Ethiopia, South West Ethiopia, and Western and Central Oromia regions (Fig. 3.2.1).In particular, the monthly total rainfall values of July 2025 were as high as 371.3, 374.9, 378.1, 385.6, 390.2, 426.8, 437.6, 472.7, 490.4, and 510.7 mm at Yitnora, Nazreth, Gambela, Angerguten, Aman, Motta, Arejo, D/Tabor, Gundomeskel, and Bahir Dar Met stations, respectively (Table

3.2.2).

The daily rainfall of more than 60mm was observed over Gambela, Limugenet, Nazareth, Awash Arba, Aman, Sekoru, Fugnuido, Fiche, Bahir Dar Met, Adigrat, Nura-Era, Bedelle stations were 127, 101, 84.9, 78, 65.6, 64.6, 64.5, 63, 62.3, 60.8, 60.760.2 60.7, 60.7 24, 7, 31, 31, 9, 2, 7, 9, 9, 28, 14, and 30 in mm, respectively (Table 3.2.1).

Overall, the total rainfall in July 2025 was below normal in Afar, most of the Somalia region, south and southeast Oromia, and southern parts of the region, while most of the Amhara region, Benishangul-Gumuz, western Oromia, and parts of Gambela, as well as central and northern sections of South-Southwest Ethiopia, received above-normal rainfall. Normal rainfall was observed in the west of and eastern Tigray, some areas of Amhara, north and south Afar, western Benishangul-Gumuz, most parts of Gambela, east Oromia, and northwestern parts of the southern regions (Fig. 3.2.2).

Western Tigrai, eastern and southern Afar, central, and western Amhara, most of Benishangul-Gumuz, Gambela, southwestern Ethiopia, and parts of Oromia and the Somalia region received more rainfall than in July 2025. Conversely, in Benishangul-Gumuz, Amhara, Gambela, Somali, Tigray, and most of Oromia, July 2025 was drier than July 2025. No changes occurred in the rest of the country (Fig. 3.2.3).

Table 3.2.1. Stations with more than 60.0 mm of rainfall in 24 hours during July 2025.

Stations	Amount (mm)	Date
Gambella	127	24
Limugenet	101	7
Nazreth	84.9	31
Awash Arba	78	31
Aman	65.6	9
Sekoru	64.6	2
Fugnuido	64.5	7
Fiche	63	9
Bahir Dar Met	62.3	9
Adigrat	60.8	28
Nura-Era	60.7	14
Bedelle	60.2	30

Table 3.2.2. Stations with more than 370.0mm of monthly total rainfall during July 2025

Station	moun
Yitnora	71.3
Nazreth	74.9
Gambella	78.1
Angergute n	85.6
Aman	90.2
Motta	26.8
Arejo	37.6
D/Tabor	72.7
Gundomes kel	90.4
Bahir Dar Met	10.7

Table 3.2.3. New records of maximum rainfall in 24 hours during July 2025.

Name	Previous record	New record	Date
Fugnuido	59.9	64.5	7
Gambella	98.9	127	24

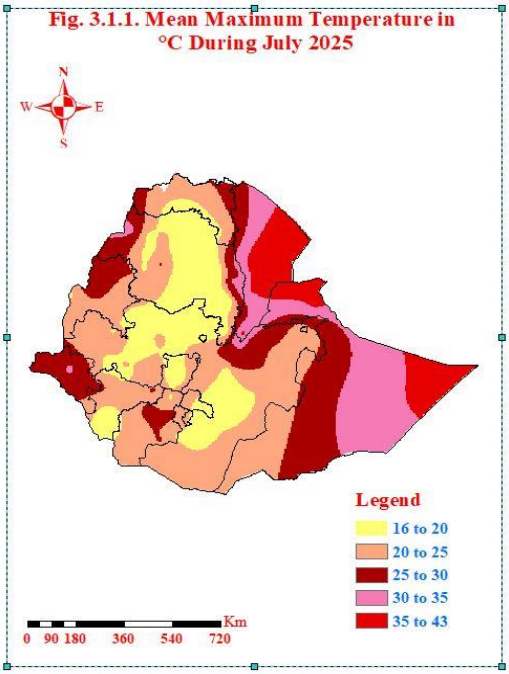

Fig. 3.1.1. Mean Maximum Temperature in °C During July 2025

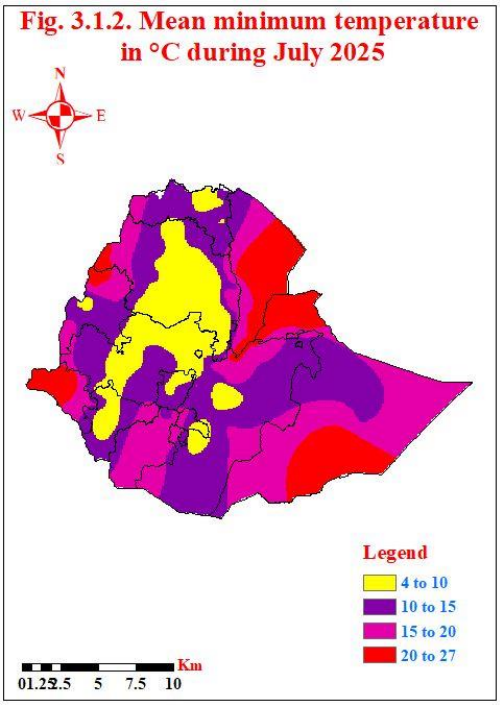

Fig. 3.1.2. Mean minimum temperature in °C during July 2025

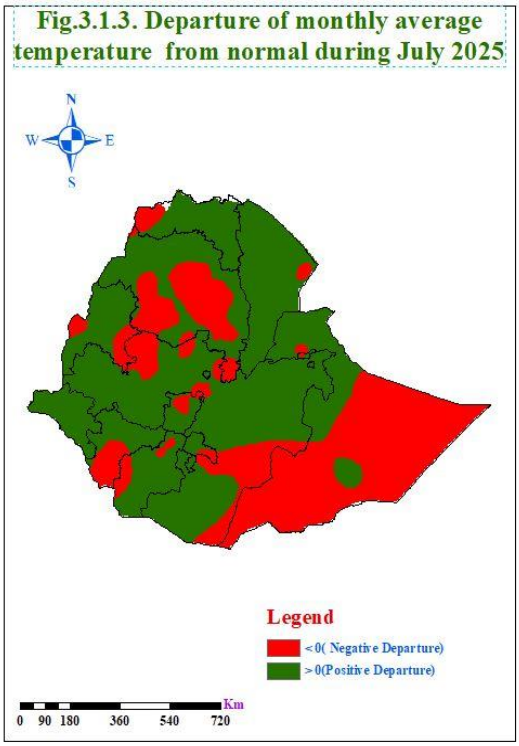

Fig.3.1.3. Departure of monthly average temperature from normal during July 2025

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

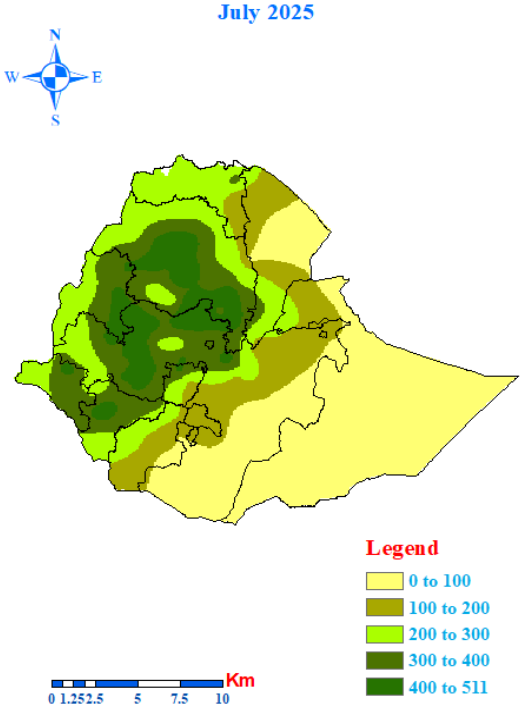

Fig. 3.2.2. Percent of normal rainfall during July 2025

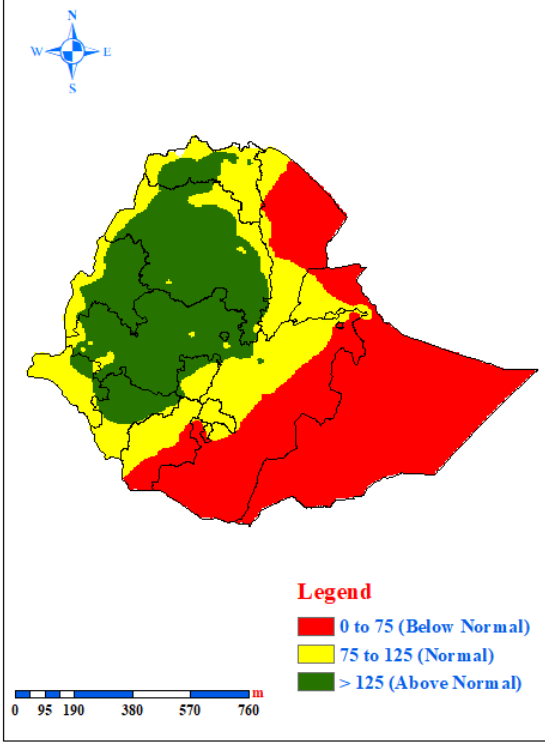

Fig. 3.2.3. Monthly total rainfall of July2025 minus monthly total rainfall of July2024