

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

**MONTHLY CLIMATE BULLETIN**

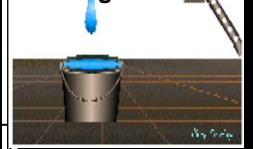
**April 2024**

**Some Applications of  
Climate Information**

**Disaster Management**



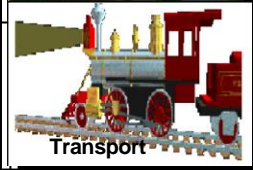
**Water Resources  
Management**



**Construction**



**Environment & Health**



**Transport**



**Recreation & Tourism**

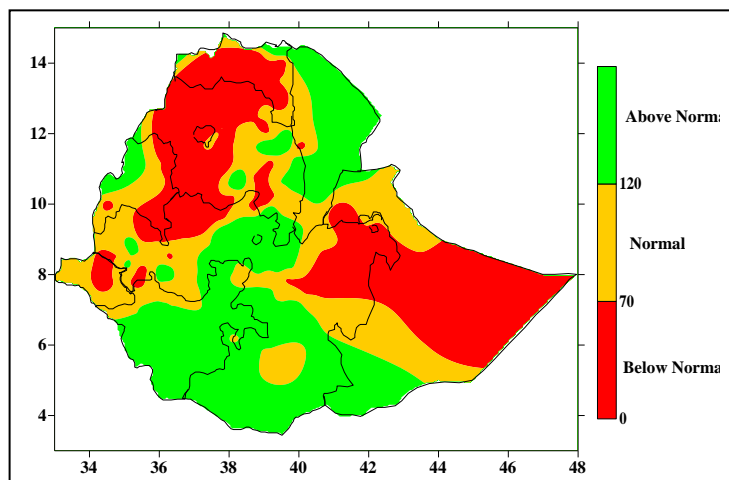
**HIGHLIGHTS**

During April 2024, days were remained warm over several parts of Ethiopian lowlands, in particularly over Gambella, Somali, Afar, Benishangul Gumuz, North West Amhara and Tigray regions. Specifically, the extreme maximum temperature values were as high as 39.6, 40.5, 41.2, 41.4, 42.0, 42.5, 42.6, 42.8, 43.6, and 43.8 °C Alemteferi, Awash Arba, Lare, Semera, Gewane, Fugnuido, Gambella, Metema, Abobo and Gode stations respectively.

On the other hand, the recorded extreme minimum temperature values were below 5°C in some highland areas of Amhara, some part of Oromia, Tigray and Benishangul Gumuz regions. Specifically, the extreme minimum temperature values were 0.0, 2.5, 4.1, 4.3, and 4.5 °C in Bedelle, Gewane, Sholagebaya, Arise Robe, and Debark stations, respectively.

During April 2024, the monthly rainfall amount exceeded 250 mm or heavier rainfall was occurring over Central Ethiopia, South West Ethiopia, South Ethiopia, Sidam and southern part of Oromia regions.

In particular, the monthly total rainfall values of April 2024 were as high as 264.0, 266.1, 270.0, 274.7, 277.5, 283.7, 285.8, 308.0, 314.3, 320.7 and 327.9 mm at Jinka, Aman, Hossaina, Konso, Gatira, Maji, Hagere Mariam, Bore, Sawula, Dilla and Moyale stations respectively. The observed daily rainfall values was more than 60mm at Hossaina, Bati, Debre Work, Majji, Debre Zeite(AF), Hagere Mariam, Addis Ababa Obs, Moyale and Wegel Tena stations. These stations reported 60.6, 61.0, 66.0, 71.5, 73.0, 73.8, 81.4, 84.0 and 96.0 mm respectively. In general, the monthly total rainfall amount of April 2024 was below normal in Amhara, Tigray, Harar, Dire Dawa, some parts of Somali, Gambella, Oromia, and Benishangul Gumuz regions. On the other hand, it was above normal in Central Ethiopia, South West Ethiopia, South Ethiopia, Sidam, Afar, southern part of Oromia and some pocket areas of Somali regions. The rainfall was normal in some parts of Amhara, Oromia, Afar, Somali, Gambella and Benishangul Gumuz regions.



**Percent of normal rainfall of April 2024**

## **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 and giving some highlights about 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 a given 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 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 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 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.

Director General

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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 37°S, 120°E.

The St. Helena high with a mean central pressure value of above 1018hPa was centered at about 35°S, 10°E.

The Azores high with a mean central pressure value of 1018hPa was centered at about 34°N, 35°W.

### 1.2 Lower Troposphere (850 hPa vector wind)

Easterly flow with below 4 - 8m/s mean vector wind flow was originating from Arabian Sea and Indian Ocean.

## 2. Tropical Oceanic and Atmospheric Highlights

During April 2024, sea surface temperatures (SSTs) continued to decrease but remained above average-across most of the equatorial Pacific. The latest monthly Niño indices were +0.1°C for the Niño 1+2 region, +0.8°C for the Niño 3.4 region and +0.6°C for the Niño 3 region. The depth of the oceanic thermocline (measured by the depth of the 20°C isotherm) was below-average across the equatorial Pacific. The corresponding sub-surface temperatures were 1-6°C below-average in the far eastern equatorial Pacific.

**Reference: NOAA, climate diagnostic bulletin of April2024**

## 3. Weather

### 3.1 Temperature

During April 2024, days were remained warm over several parts of Ethiopian lowlands, such as Gambella, Somali, Afar, Benishangul Gumuz,

North West Amhara and Tigray regions (Fig. 3.1.2). Specifically, the extreme maximum temperature values were as high as 39.6, 40.5, 41.2, 41.4, 42.0, 42.5, 42.6, 42.8, 43.6, and 43.8°C for Alemteferi, Awash Arba, Lare, Semera, Gewane, Fugnuido, Gambella, Metema, Abobo and Gode stations, respectively (Table 3.1.1).

On the other hand, the extreme minimum temperature values of below 5°C were recorded in some highland areas of Amhara, some part of Oromia, Tigray and Benishangul Gumuz regions (Fig. 3.1.1). Specifically, the extreme minimum temperature values were 0.0, 2.5, 4.1, 4.3, 4.5, 5.2, 5.4, and 5.4°C over Bedelle, Gewane, Sholagebaya, Arise Robe, Debark, Mehalmeda, Ambamariam and Ambo stations, respectively (Table 3.1.2).

In General, the April 2024 Mean monthly temperature values were partially cooler than normal in Benishangul Gumuz, Somali, and some pocket areas of Amhara, Afar, Oromia and Tigray regions. On the other hand, warmer than normal over Gambella, Central Ethiopia, Sidam, Dire Dawa, most parts of Oromia, and Tigray regions (Fig. 3.1.3).

Table 3.1.1 Stations with extreme maximum temperature values of greater than or equal to 39°C during April2024

Stations	Extreme maximum temperature (°c)	Date
Alemteferi	39.6	20
Awash Arba	40.5	14
Lare	41.2	29
Semera	41.4	15
Gewane	42.0	14
Fugnuido	42.5	24
Gambella	42.6	12
Metema	42.8	19
Abobo	43.6	11

Gode	43.8	17
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Table 3.1.2 Stations with extreme minimum temperature values of below or equal to 5.5°C during April 2024

Stations	Extreme minimum temperature (°c)	Date
Bedelle	0.0	7
Gewane	2.5	3
Sholagebaya	4.1	22
Arise Robe	4.3	23
Debank	4.5	16
Mehalmeda	5.2	12
Ambamariam	5.4	26
Ambo	5.4	26

### 3.2 Rainfall

April is one of the months of the second rainy season of Belg (FMAM) for most part of the country except north and northwest. The mean monthly rainfall amount exceeds 100 mm in the south, southwest and southeast part of the country.

During April 2024, the monthly rainfall amount exceeded 250 mm or heavier rainfall was occurring over Central Ethiopia, South West Ethiopia, South Ethiopia, Sidama and southern part of Oromia regions (Fig 3.2.1).

In particular, the monthly total rainfall values of April 2024 were as high as 264.0, 266.1, 270.0, 274.7, 277.5, 283.7, 285.8, 308.0, 314.3, 320.7 and 327.9 mm at Jinka, Aman, Hossaina, Konso, Gatira, Maji, Hagere Mariam, Bore, Sawula, Dilla and Moyale stations, respectively (Table 3.2.2). The daily rainfall more than 60mm values was observed over Hossaina, Bati, Debre Work, Majji, Debre Zeite(AF), Hagere Mariam, Addis Ababa Obs, Moyale and Wegel Tena stations was 60.6, 61.0, 66.0, 71.5, 73.0, 73.8,

81.4, 84.0 and 96.0 mm respectively (Table 3.2.1).

In general, the monthly total rainfall amount of April 2024 was below normal in Amhara, Tigray, Harar, Dire Dawa, some parts of Somali, Gambella, Oromia, and Benishangul Gumuz regions. On the other hand, it was above normal in Central Ethiopia, South West Ethiopia, South Ethiopia, Sidam, Afar, southern part of Oromia and some pocket areas of Somali regions. The rainfall was normal in some parts of Amhara, Oromia, Afar, Somali, Gambella and Benishangul Gumuz regions (Fig. 3.2.2).

Sidama, South Ethiopia, south West Ethiopia, Central Ethiopia, Afar, Southern Oromia and Benishangul Gumuz regions were wetter than April 2023 rainfall. On the other hand, in Amhara, Gmbella, Dire Dawa, Harari, Somali, Tigray and some part of Oromia regions, April 2024 was dryer than April 2023 rainfall. No change on the rest part of the country (Fig. 3.2.3).

Table 3.2.1. Stations with more than 60 mm of rainfall in 24 hours during April 2024

Stations	Amount (mm)	Date
Hossaina	60.6	1
Bati	61.0	1
Debrawrek	66.0	3
Majji	71.5	17
Debrezeit(Af)	73.0	9
Hageremariam	73.8	28
A.A. Obs.	81.4	28
Moyale	84.0	2
Wegeltena	96.0	27

Table 3.2.2. Stations with more than 260mm of monthly total rainfall during April 2024

Station	Amount
Jinka	264.0
Aman	266.1
Hossaina	270.0

Konso	274.7
Gatira	277.5
Majji	283.7
Hagere Mariam	285.8
Bore	308.0
Sawula	314.3
Dilla	320.7
Moyale	327.9

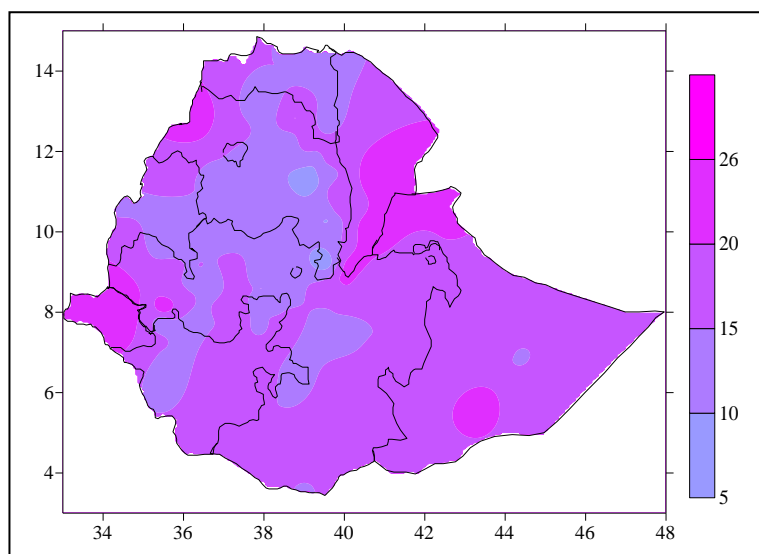


Fig. 3.1.1. Mean minimum temperature in °C during April2024

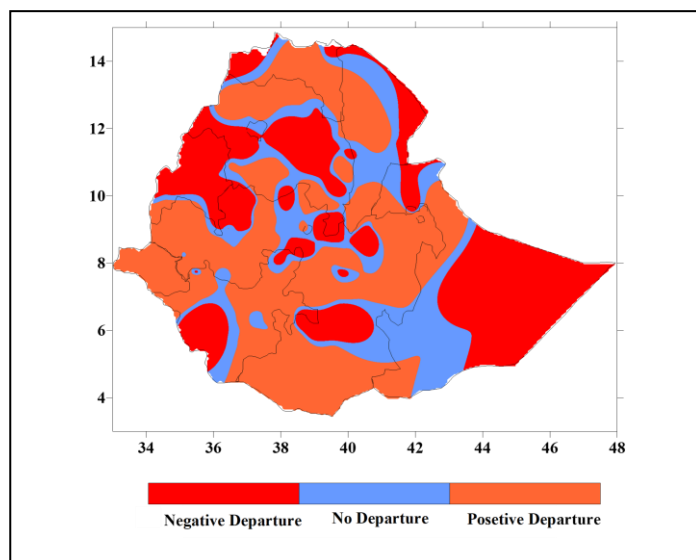


Fig.3.1.3. Departure of monthly average temperature from normal during April2024

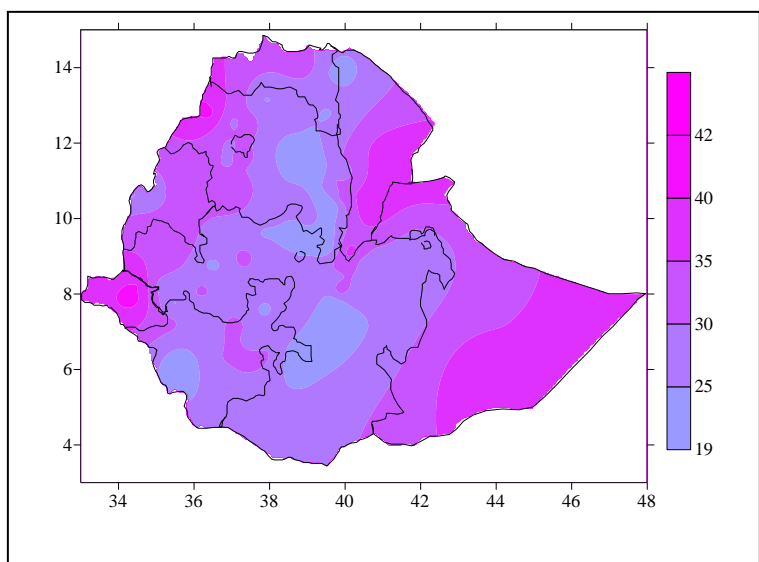


Fig. 3.1.2. Mean maximum temperature in °C during April2024

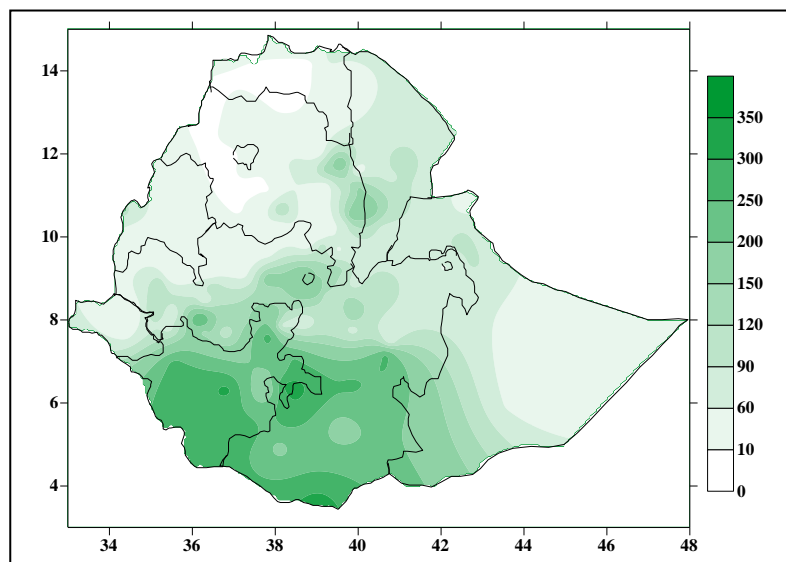


Fig.3.2.1. Monthly total rainfall in mm during April2024

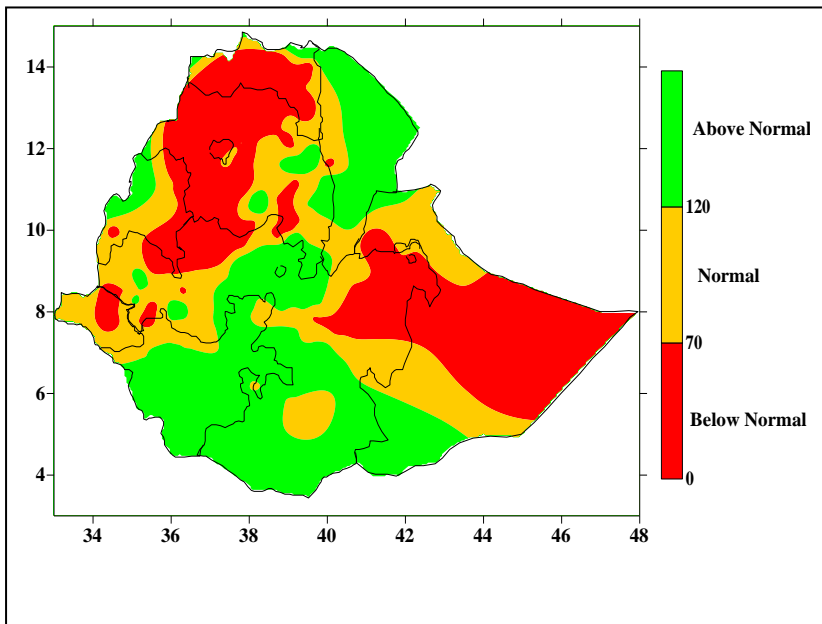


Fig. 3.2.2. Percent of normal rainfall during April2024

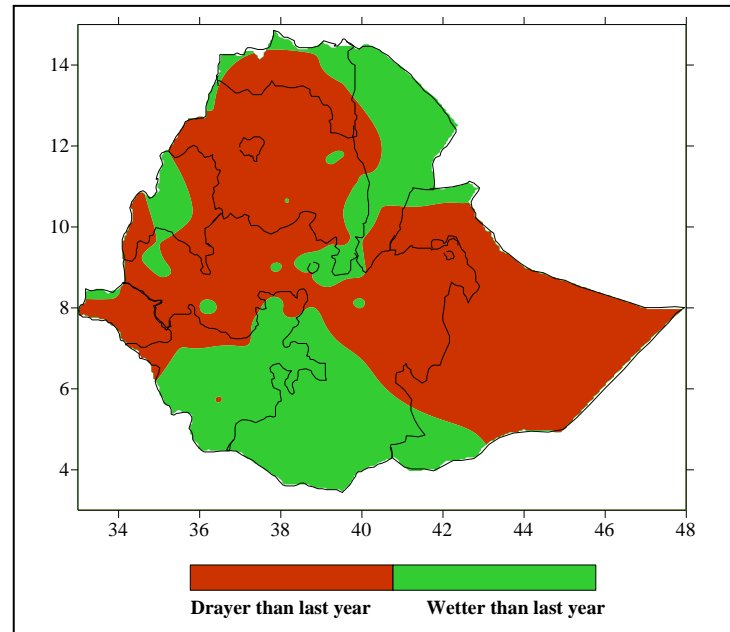


Fig. 3.2.3. Monthly total rainfall of April2024 minus monthly total rainfall of April2023