

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

SEASONAL CLIMATE BULLETIN
BELG 2024

*Some Applications of
Climate Information*

Disaster Management



Water Resources Management



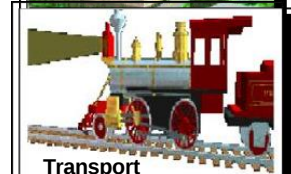
Construction



Environment & Health



Transport



Recreation & Tourism

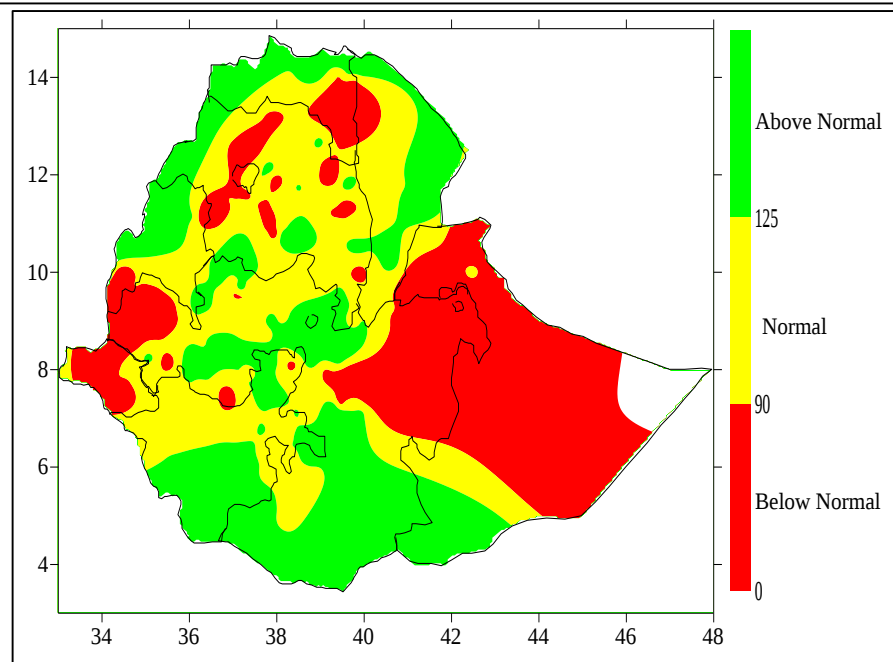


HIGHLIGHTS

During Belg On the other hand, the day remained hot over the lowland of north eastern, eastern, southeastern and north western part of the country recorded extreme maximum temperature values of more than 34 °C (Fig 3.1.2). In specific, the extreme maximum temperature values were as high as 43.2, 43.6, 44.0, 44.6 and 44.8 °C over Metema, Abobo, Fugnuido, Semera and Elidar, respectively.

Belg season in Ethiopia is the second rainy season. Hence, the seasonal total rainfall exceeds 300mm over most parts of the country. In particular, the seasonal total rainfall values of BELG 2024 were as 736.5, 738.2, 728.9, 700.3, 1061.4, 676.4, 673.7, 730.8 and 750.2 mm over Aman, Bore, Dilla, Dolomena, Gatira, Hossaina, Jinka, Majji and Sawula, respectively (Table 3.2.2). The daily rainfall values over Wegeltena, Gelemso, Abomsa, Nazreth, Moyale, and Wolaita Sodo stations was 96.0, 87.0, 96.0, 113.5, 85.4 and 99.9 mm, respectively (Table 3.2.1).

In general, the percent of normal rainfall distribution during BELG 2024 was normal to above normal over most parts of the country except western Oromia, Gambella, Somali and some pocket areas of Amhara and Tigray regions.



Percent of normal rainfall in Belg 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.

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 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.

Director General

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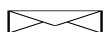
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1. Synoptic Situation

1.1 Surface

The Mascarene high with a mean central pressure value of above 1020hPa was centered at about 37°S, 120°E for April, 35°S, 80°E for February, 36°S, 90°E for March and 28°S, 50°E for May 2024.

The St. Helena high with a mean central pressure value of above 1018hPa was centered at about 35°S, 10°E for April, 1020hPa centered at about 30°S, 10°W for February, 32°S, 0°E for March and 28°S, 10°W for May 2024.

The Azores high with a mean central pressure value of 1018hPa was centered at about 34°N, 35°W for April, 1020hPa centered at about 36°N, 10°W for February, 33°N, 35°W for March and 35°N, 12°W for May 2024.

1.2 Lower Troposphere (850 hPa vector wind)

Easterly flow of below 4 - 8m/s mean vector wind flow from Arabian Sea and Indian Ocean for April, North easterly flow of below 4 - 8m/s mean vector wind flow from Indian Ocean and Arabian Peninsula for February, North easterly flow of below 2 - 4m/s mean vector wind flow from Indian Ocean for March and Easterly flow with below 4 - 8m/s mean vector wind flow originating from the Arabian Sea and the Indian Ocean for May was observed.

2. Tropical Oceanic and Atmospheric Highlights

During Belg 2024 season, sea surface temperatures (SSTs) continued to decrease but remained well above-average (March and April) but during May SSTs continued to decrease across most of the equatorial Pacific. The latest monthly Nino indices were +0.1C for the Nino 1+2 region, +0.8C for the Nino 3.4 region and +0.6C for the Nino 3 region in April, +0.3C for the Nino 1+2 region, +1.2C for the Nino 3.4 region and +1.0C for the Nino 3 region in March and -0.7C for the Nino 1+2 region, +0.3C for the Nino 3.4 region and +0.7C for the Nino 4 region in May. The depth of the oceanic thermocline (measured by the depth of the 20C isotherm) was below-average across the equatorial Pacific.

Also during Belg, lower-level wind anomalies were easterly over the western and west-central equatorial Pacific, while upper-level wind anomalies were near average across the equatorial Pacific. Meanwhile, tropical convection was slightly suppressed around the Date Line and was near average around Indonesia. Collectively, these oceanic and atmospheric anomalies were consistent with weakening El Nino and transition toward ENSO-neutral conditions.

Reference: NOAA, Climate Diagnostic Bulletin of Belg (February to May) 2024

3. Weather

3.1 Temperature

During Belg On the other hand, the day remained hot over the lowlands of the northeastern, eastern, southeastern, and northwestern parts of the country recording extreme maximum temperature values of more than 34 °C (Fig 3.1.2). In specific, the extreme maximum temperature values were as high as 43.2, 43.6, 44.0, 44.6, and 44.8 °C at Metema, Abobo, Fugnuido, Semera, and Elidar, respectively (Table 3.1.1).

On the other hand, the highlands of Eastern & central Amhara, Central, and Eastern Oromia have days with minimum temperature below 7 °C (Fig. 3.1.1). Specifically, days with minimum temperature values of less than 4.0 °C were reported at Sholagebaya, Wereilu, Wegeltena, and Yitnora stations (Table 3.1.2).

Table 3.1.1 Stations with extreme maximum temperature values of greater than or equal to 43°C during Belg 2024

Stations	Extreme maximum temperature (°c)	Date	Month
Metema	43.2	14	Mar
Abobo	43.6	11	Apr
Fugnuido	44.0	12	Mar
Semera	44.6	29	May
Elidar	44.8	31	May
Gambella	43.2	12	May
Gewane	43.8	29	May

Table 3.1.2 Stations with extreme minimum temperature values less than or equal to 4.0°C during Belg 2024

Stations	Extreme minimum temperature (°c)	Date	Month
Sholagebaya	2.0	28	Feb
Wereilu	2.5	2	Feb
Wegeltena	3.5	6	Feb
Ambamariam	4.0	17	Feb
Mehalmeda	4.0	6	Feb
Yitnora	1.8	14	Mar
Alemaya	4.0	27	Mar
Dangla	4.0	1	Mar

3.2 Rainfall

Belg (February to May) season in Ethiopia is the second rainy season. Hence, the seasonal total rainfall exceeds 300mm over most parts of the country (Fig 3.2.1).

In particular, the seasonal total rainfall values of BELG 2024 were as 736.5, 738.2, 728.9, 700.3, 1061.4, 676.4, 673.7, 730.8 and 750.2 mm at Aman, Bore, Dilla, Dolomena, Gatira, Hossaina, Jinka, Majji and Sawula stations are recording, respectively, (Table 3.2.2). The daily rainfall values at Wegeltena, Gelemso, Abomsa, Nazreth, Moyale, and Wolaita Sodo stations were recorded as 96.0, 87.0, 96.0, 113.5, 85.4 and 99.9 mm, respectively, (Table 3.2.1).

The rainfall distribution during BELG 2024 was dryer than the last year 2023 over most parts of the country except Benishangul Gumuz, Sidama, South Ethiopia, South West Ethiopia, some parts of Central Ethiopia, and some pocket areas of Amhara and Tigray regions (Fig 3.2.2).

In general, the percent of normal rainfall distribution during BELG 2024 was normal to above normal over most parts of the country except western Oromia, Gambella, Somali, and some pocket areas of Amhara and Tigray regions (Fig.3.2.3).

Table 3.2.1 Station(s) with Equal or greater than 80mm of rainfall in 24 hours during Belg 2024

Station	Value in mm	Day	Month
A.A. Obs.	81.4	28	Apr
Wegeltena	96.0	27	Apr
Dolomena	80.0	25	Mar
Gelemso	87.0	30	Mar
Abomsa	96.0	25	Mar
Nazreth	113.5	9	Mar
Gidaayana	80.4	14	May
Moyale	85.4	3	May
Wolaita Sodo	99.9	23	May

Table 3.2.2. Station(s) with greater than or equal to 600 mm of seasonal total rainfall during Belg 2024

Station	Amount
Aman	736.5
Bore	738.2
Dilla	728.9
Dolomena	700.3
Gatira	1061.4
Hossaina	676.4
Jinka	673.7
Limugenet	600.9
Majji	730.8
Sawula	750.2
Tepi	636.6
Wolaita Sodo	613.73

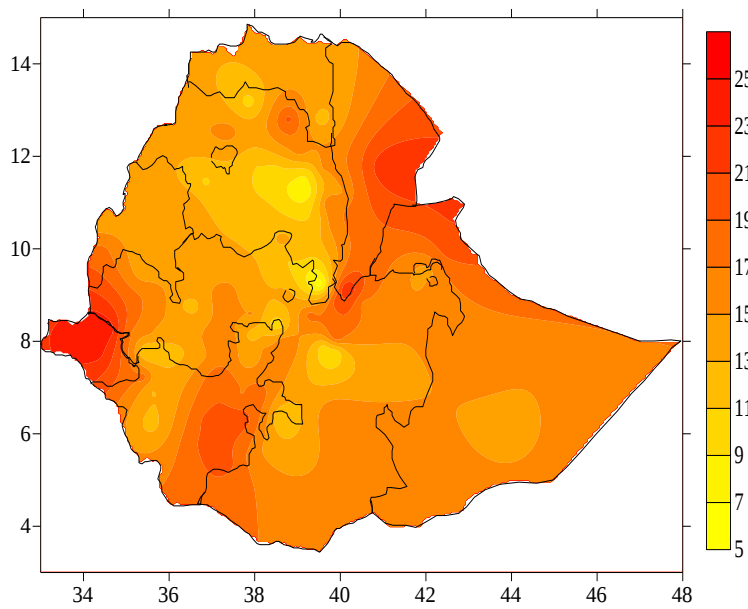


Figure 3.1.1. Minimum temperature in °C during Belg 2024

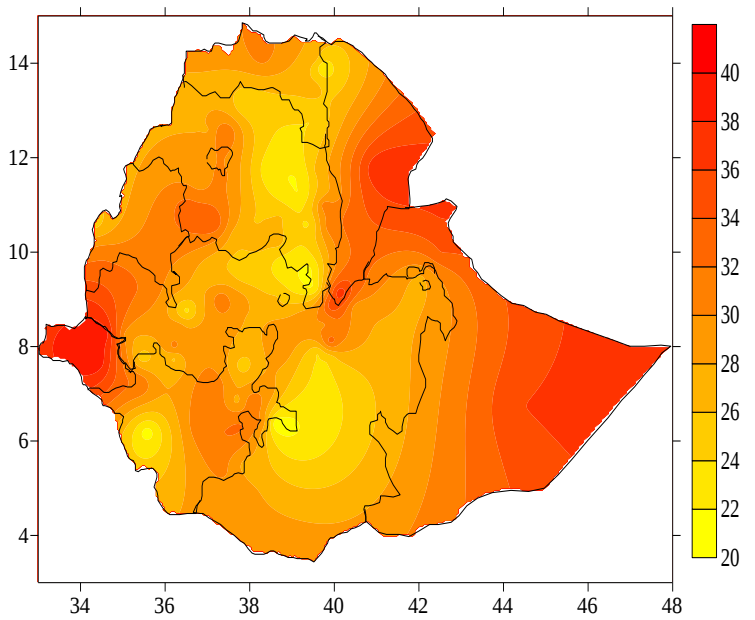


Figure 3.1.2. Maximum temperature in °C during Belg 2024

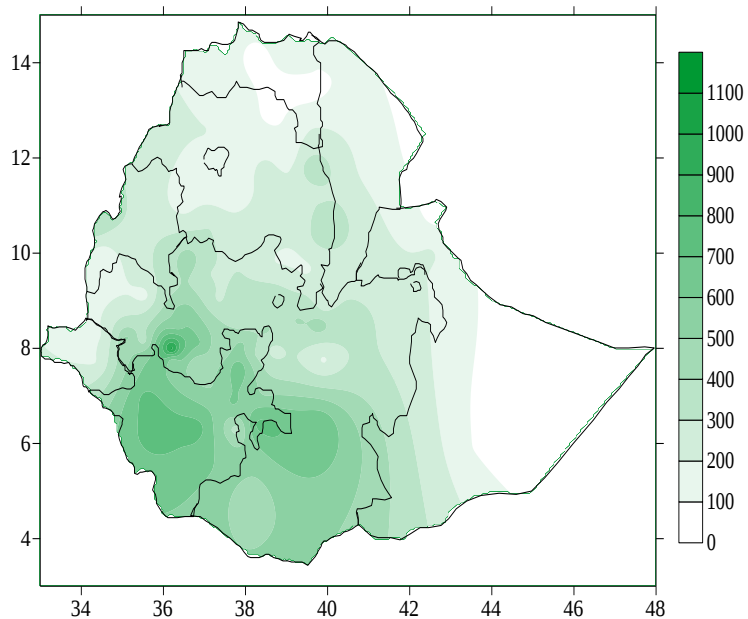


Figure 3.2.1. Seasonal total rainfall in mm during Belg 2024

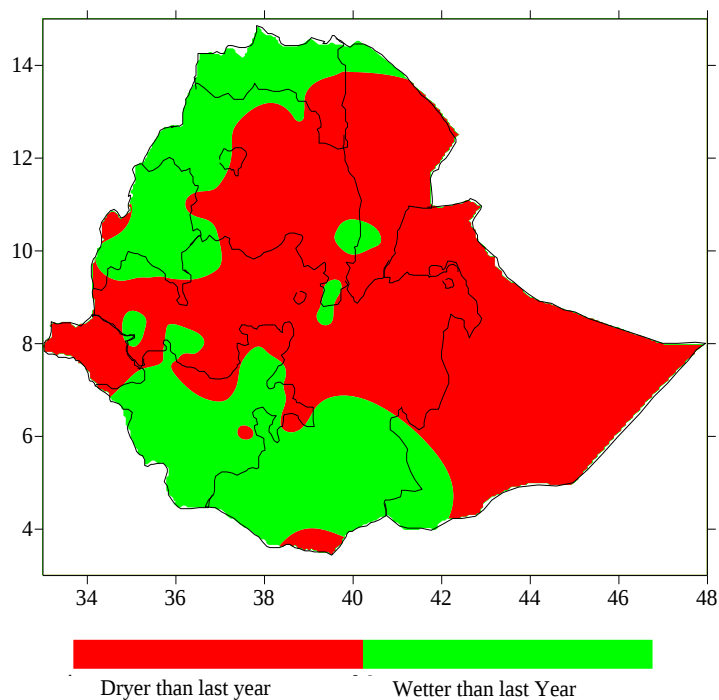


Figure 3.2.2. Seasonal total rainfall of Belg 2024 minus seasonal total rainfall of Belg 2023

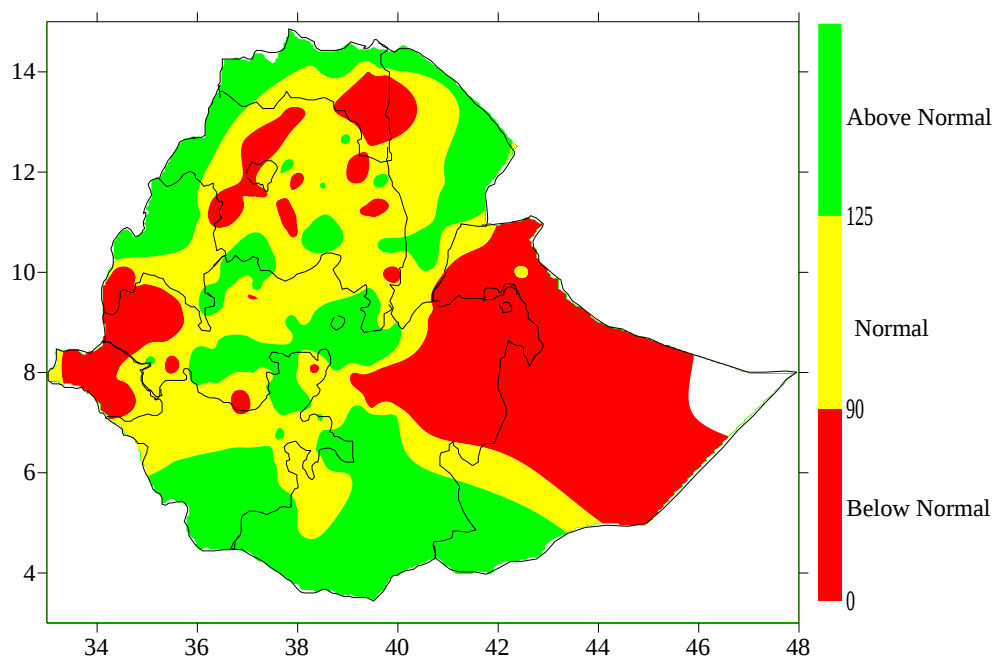


Figure 3.2.3. Percent of Normal Rainfall during Belg 2024