FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA

ETHIOPIAN METEOROLOGICAL INSTITUTE

METEOROLOGICLA DATA AND CLIMATOLOGY LEAD EXECUTIVE

REMOTE SENSING AND CLIMATOLOGICAL DESK

MONTHLY CLIMATE BULLETIN

January 2025

Some Applications of Climate Information

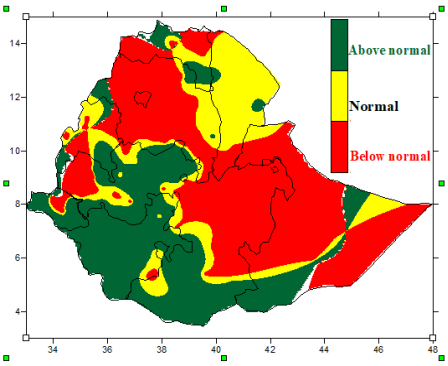
HIGHLIGHTS

During January 2025, days were remained warm over several portions of lowlands of Ethiopia, in particularly over Gambella, Somali, Afar and Benishangul Gumuz regions . Specifically, the extreme maximum temperature values were as high as 41.8, 41.5, 40.6, 40.4, 39, 36.6, 36.4, and 36, ^{o}C over Gode, Fugnuido, Gambella, Metema, Lare, Pawe, Gewane, and Kibridahar stations respectively.

On the other hand, the extreme minimum temperature values were below 3° ^{o}C over some highland parts of Amhara, some parts of Oromia, and central Ethiopia. Specifically, the extreme minimum temperature values were -2, -1, -0.4, 0.2, 0.5, 1, 1, 2, 2.5, 2.6, 3 ^{o}C over D/Brehan, Wegeltena, Alemaya, Jijiga, Mehalmeda, Debrezeit(Af), Sholagebaya, Bui, Arise Robe, Bati and Dangla respectively . In General, the monthly average temperature values were slightly cooler than normal over Northern Afar, central and Southern Amhara, most of Somalia, and some pocket areas of Oromia and partially warmer than normal over southern Afar, central and Eastern Tigray, Benishangul Gumuz, Gambela, and most of Oromia and SNNP regions across the country.

During January 2025, the monthly rainfall amount exceeded 10 mm or heavier rainfall was occurring over Southern, southwest and central Ethiopia, Sidama, and some part of Oromia, In particular, the monthly total rainfall values of January 2025 were as high as 27.3, 25.7, 15.6, 14.1, 12.6, and 11.9 in mm over Tepi, Sekoru, Maji, WolaitaSodo, Masha, and Aman respectively.

In general, the monthly total rainfall amount of January 2025 was below normal over some parts of Tigray, parts of Oromia , Benishangul-Gumuz and Somali regions. During the month, tnormal rainfall was experienced over most parts of Afar and some parts of Tigray, Somalia, Benishangul-Gumuz, Oromia and the Gambela region.



Percent of normal rainfall of January 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 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 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 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.

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1. Synoptic Situation

1.1 Surface

The Mascarene high, with a mean central pressure value of above 1020 hPa, was centered at about 36°S, 68°E.

The St. Helena high, with a mean central pressure value of above 1020 hPa, was centered at about 38°S, 10°W.

The Azores high, with a mean central pressure value of 1016hPa was centered at about 32°N, 5°W.

1.2 Lower Troposphere (850 hype vector wind)

North easterly flow of below 0 - 12m/s was observed over the western Indian Ocean, and easterly flow was dominant over the Arabian Peninsula

2. Tropical Oceanic and Atmospheric Highlights

During January 2025, sea surface temperatures (SSTs) were below-average across the central and east-central equatorial Pacific. The latest monthly Niño indices were -0.2°C for the Niño 1+2 region, -0.7°C for the Niño 3.4 region, and -0.6°C for the Niño 4 region (Table T2). The depth of the oceanic thermocline (measured by the depth of the 20°C isotherm) was below average across the central and eastern equatorial Pacific. The corresponding sub-surface temperatures were 1-5°C below average in the eastern equatorial Pacific.

Reference: NOAA, climate diagnostic bulletin of January 2025

3. Weather

3.1 Temperature

During January 2025, days were remained warm over several portions of lowlands of Ethiopia, in particularly over Gambella, Somali, Afar and Benishangul Gumuz regions (Fig. 3.1.2). Specifically, the extreme maximum temperature values were as high as 41.8, 41.5, 40.6, 40.4, 39, 36.6, 36.436, and oc over Gode, Fugnuido, Gambella, Metem, Lare, Pawe, Gewane, and Kibridahar station respectively (Table 3.1.1).

On the other hand, the extreme minimum temperature values were below 3° OC cover some highland parts of Amhara, some parts of Oromia, and central Ethiopia. Specifically, the extreme minimum temperature values were -2, -1, -0.4, 0.2, 0.5, 1, 1, 2, 2.5, 2.6, 3 oc over D/Brehan, Wegeltena, Alemaya, Jijiga, Mehalmeda, Debrezeit(Af), Sholagebaya, Bui, Arise Robe, Bati, Dangla respectively (Table 3.1.2).In General, the monthly average temperature values were slightly cooler than normal over Northern Afar, central and Southern Amhara, most of Somalia, and some pocket areas of Oromia and partially warmer than normal over southern Afar, central and western Tigray, Benishangul Gumuz, Gambela, and most of Oromia and SNNP regions across the country, 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 36 °C during January 2025

Stations	Extreme maximum temperature (^{o}c)	Date
Gode	41.8	31
Fugnuido	41.5	20
Gambella	40.6	21
Metema	40.4	30
Lare	39	23
Pawe	36.6	20
Gewane	36.4	19
Kibridahar	36	13

Table 3.1.2 Stations with extreme minimum temperature values of below or equal to 3°C during January 2025

Stations	Extreme minimum temperature (°c)	Date
D/Brehan	-2	1
Wegeltena	-1	1
Alemaya	-0.4	20/21
Jijiga	0.2	19
Mehalmeda	0.5	20
Debrezeit(Af)	1	18/21
Sholagebaya	1	1
Bui	2	18
Arise Robe	2.5	6
Bati	2.6	18
Dangla	3	27

Table 3.1.3. New records of maximum temperature during January 2025.

Name	Previous record	New record	Date
Awassa	32.6	34.5	30
Bahir Dar New	31.5	34.5	30
Debre Markos	27.6	30	30
Ejaji	33.6	34	17
Konso	34	34	21/22
Yetnora	29.4	29.5	21

Table 3.1.4. New records of minimum temperature during January 2025.

Name	Previous record	New record	Date
BURE	11	10	23
SEKORU	7	6.2	1

3.2 Rainfall

Normally, January is one of the months of the dry season of Bega (ONDJ) for most part of the country except the southern southeast and southwestern. During January 2025, the monthly rainfall amount exceeded 10 mm or heavier rainfall was occurring over Southern, southwest and central Ethiopia, Sidama, and some part of Oromia, In particular, the monthly total rainfall values of January 2025 were as high as 27.3, 25.7, 15.6, 14.1, 12.6, and 11.9 in mm over Tepi, Sekoru, Majji, WolaitaSodo, Masha, and Aman respectively. The daily rainfall more than 5mm was observed at Sekoru, Tepi, Woleaian Sodo, Masha, Bilate, Majji, Ejaji, Fiche, Aman, and Gimbi stations was 15.5, 14.8. 12.9, 10, 7.8, 7.5, 6.3, 5.9, 5.6, and 5.3, respectively (Tables 3.2.1).

In general, the monthly total rainfall amount of January 2025 was below normal over some parts of Tigray, Afar, Benishangul-Gumuz and Somali regions. During the month, the normal was experienced over most parts of Afar and some parts of Tigray, Somalia, Benishangul-Gumuz, Oromia and the Gambela region. And finally, the month below normal dominated North of Tigray, most of Amhara, most parts of central and eastern Oromia, some parts of Benishangul Gumuz, Gambela and Somali a regions (Fig. 3.2.2). in general, comparing the last year of January, most parts of the country were a drier moister status except most of Tigray, some of Oromia, and the Afar region.

Table 3.2.1. Stations with more than 5 mm of rainfall in 24 hours during January 2025

Stations	Amount (mm)	Date
Sekoru	15.5	10
Tepi	14.8	23
Wolaita Sodo	12.9	28
Masha	10	7
Bilate	7.8	28
Majji	7.5	10
Ejaji	6.3	28
Fiche	5.9	28
Aman	5.6	5
Gimbi	5.3	28

Table 3.2.2. Stations with more than 11mm of monthly total rainfall during January 2025

Station	Amount
Tepi	27.3
Sekoru	25.7
Majji	15.6
Wolaita Sodo	14.1
Masha	12.6
Aman	11.9

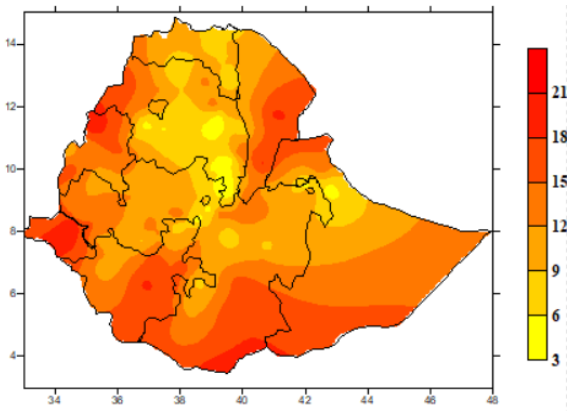
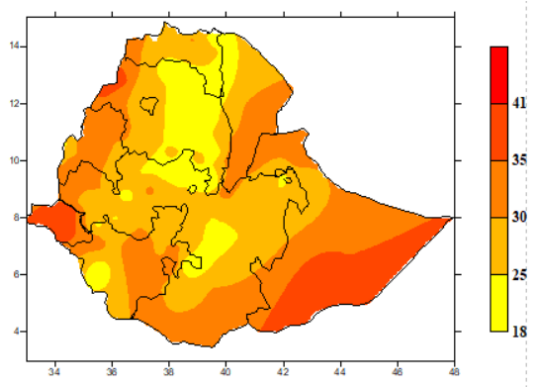


Fig. 3.1.1. Mean minimum temperature in ^{o}C during January 2025.



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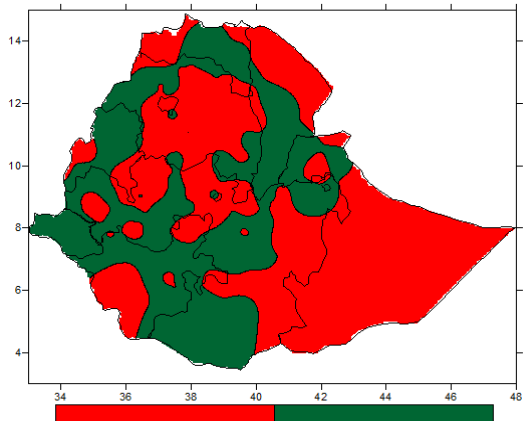

Fig.3.1.3. Departure of monthly average temperature from normal during January 2025

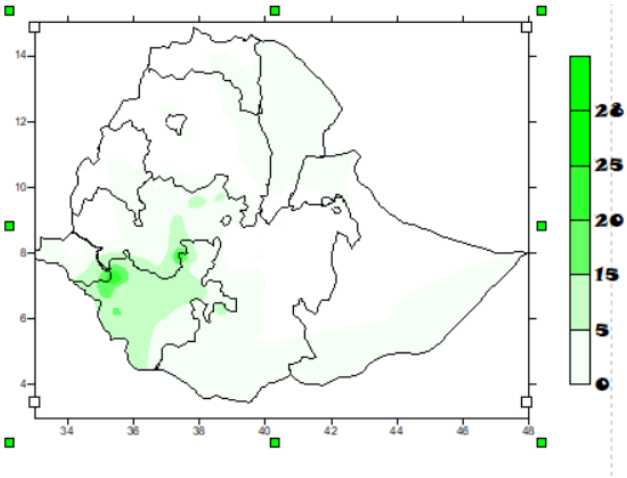

Fig.3.2.1. Monthly total rainfall in mm during January 2025.

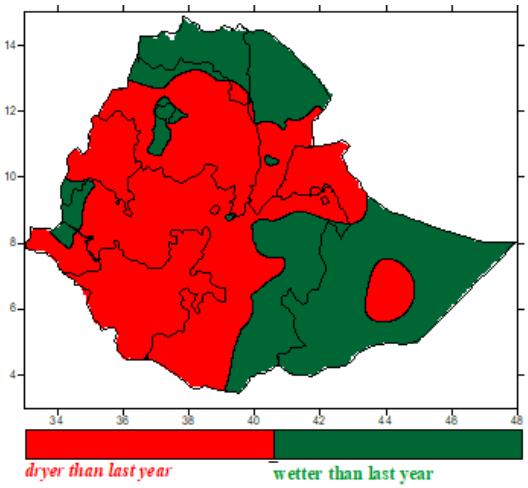

Fig. 3.2.3. Monthly total rainfall of January

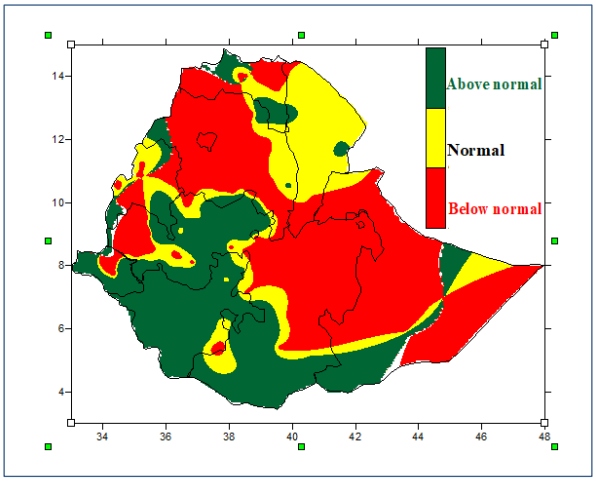

Fig. 3.2.2. Percent of normal rainfall during January 2025