# ETHIOPIA METEOROLOGY INSTITUTE Agrometeorological Bulletin

## **TEN DAY AGROMETEOROLOGICAL BULLETIN**

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Ethiopia Meteorology Institute P.O.BOX 1090, ADDIS ABABA, ETHIOPIA

Website: http:// www.ethiomet.gov.etE-mail nmsa@ethionet.etFax 251-1-517066, Tel. 251-1-512299

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#### FORE WARD

This Agro met Bulletin is prepared and disseminated by the Ethiopia Meteorology Institute (EMI). The aim is to provide those sectors of the community involved in Agriculture and related disciplines with the current weather situation in relation to known agricultural practices.

The information contained in the bulletin, if judiciously utilized, are believed to assist planners, decision makers and the farmers at large, through an appropriate media, in minimizing risks, increase efficiency, maximize yield. On the other hand, it is vital tool in monitoring crop/ weather conditions during the growing seasons, to be able to make more realistic assessment of the annual crop production before harvest.

The Agency disseminates ten daily, monthly and seasonal weather reports in which all the necessary current information's relevant to agriculture are compiled.

We are of the opinion that careful and continuous use of this bulletin can benefit to raise ones agro climate consciousness for improving agriculture-oriented practices. Meanwhile, your comments and constructive suggestions are highly appreciated to make the objective of this bulletin a success.

Director General EMI P.O.Box 1090 Tel: 011661-57-79 FAX 00251-11-6625292 E-mail nmsa@ethionet.et <u>Addis Ababa</u>

#### SUMMARY

During the third dekad of April 2025, According to the analysed agrometeorological information, most of Belg crop growing as well as Belg season rain benefiting areas experienced enhanced moisture situation in amount and distribution particularly over southern, south-eastern, eastern and south-western parts of the country. In relation with the enhanced moisture condition heavy rainfall 30mm and above during 24hrs period were reported at several agro-meteorological stations. This situation might have positive impact on moisture requirement of Belg crops found at various phases of growth and water need of perennial plants, the observed condition was positive to conduct land preparation and sowing of long cycle crops that could be performed during April, it could also gave good opportunity to perform rain water harvesting and storing. Moreover the situation might have positive impact on the ongoing Belg agricultural activities normally moisture deficit areas and water harvesting where that can be used in time of deficit, the observed widespread moisture distribution could also have indispensable contribution on the availability of pasture and drinking water for pastoral areas. However, due to the pronounced widespread and intensified rainfall over some places of might result in crop damage, which were attaining at different phenological stages. .

During the month under review, better moisture condition was observed in amount and distribution over much of Belg rain benefiting and growing areas particularly over southern, south-eastern, central, northern, north-eastern, eastern and and south-western parts of the country. This situation might have positive impact on moisture requirement of early sown Belg crops found at various phases of growth, perennial plants, planting of Meher long cycle crops, perennial plants and improve pasture and drinking water availability in pastoral and agro pastoral areas. Besides, the observed heavy rainfall over some parts of the country might have positive impact on the on-going Belg agricultural activities normally moisture deficit areas and water harvesting where that can be used in time of deficit. On the other hand, the observed extreme heavy fall greater than 30mm in one rainy day may cause flood and water logging on crops field in low lying areas and soil erosion on sloppy areas as well as it could affect by washing away nearly sown crops.

#### 1. WEATHER ASSESSMENT

#### **1.1. Rainfall amount (1 – 10 May 2025)**

During the first dekad of May 2025, over Gedeo, Welayita and Sidama zone were received 100-200 mm of rainfall. Over Borena, Amaro, Konso, Dirashe, south Omo, Basketo, Burji, Guji, Gamogofa, Dawuro, Keffa, KT, Hadiya, Alaba, Jimma, Yem, Gurage, Arsi, Bale, south west Shewa, east Shewa, Addis Ababa, west Shewa, east Wellega, north Shewa, Oromia special zone, Afar zone 4, and south Tigray zones were received 50-100mm of rainfall. Over Liben, west Harergie, Harer, Shinile, Afar zone 2 & 5, south & north Wollo, east Gojjam, south Gonder, west Harergie, Mekele and central Tigray zones were exhibited 25-50mm of rainfall. Over Afder, Gode, Korahe, Warder, Deghabur, Fik, east Harergie, Jijiga, Afar zone 1 & 3, Gambela 1, 2, & 3, Sheka, west Wellega, Tongo, Kamashi, Assosa, Bahirdar, west Gojam, north Gonder and west Tigray zones were exhibited 5-25mm. The rest parts of the country received 0-5mm rainfall.

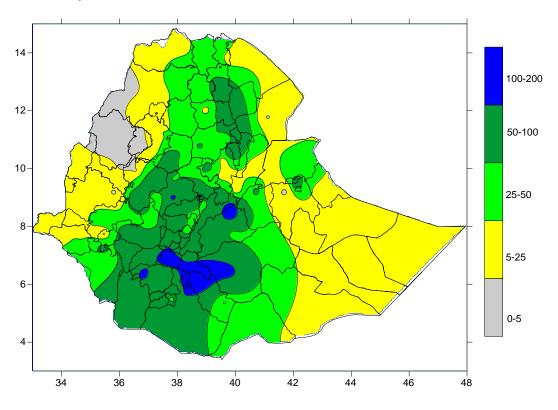


Fig 1. Rainfall distribution in mm (1 - 10) May 2025

#### **1.2. Rainfall Anomaly (1 – 10 May, 2025)**

During the first dekad of May 2025, over Gedeo, Welayita, Sidama, Borena, Amaro, Konso, Dirashe, south Omo, Basketo, Burji, Guji, Gamogofa, Dawuro, Keffa, KT, Hadiya, Alaba, Jimma, Yem, Gurage, Arsi, Bale, south west Shewa, east Shewa, Addis Ababa, west Shewa, east Wellega, north Shewa, Oromia special zone, Afar zone 4, and south Tigray, Liben, west Harergie, Harer, Shinile, Afar zone 2 & 5, south & north Wollo, east Gojjam, south Gonder, west Harergie, Mekele and central Tigray zones was experienced Normal to Above normal rain fall condition. The rest parts of the country were experienced below normal to much below normal rainfall.

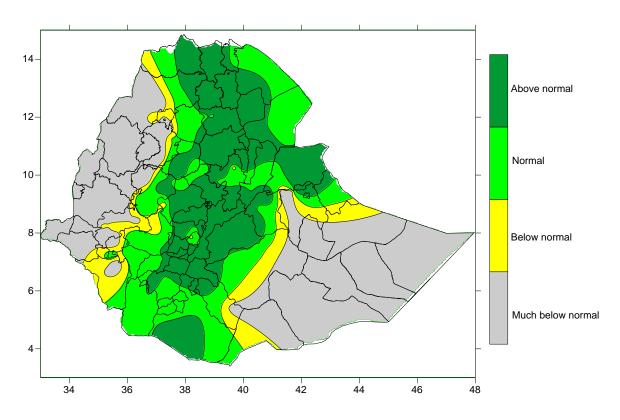


Fig.2 Percent of normal rainfall distribution (1 - 10 May, 2025)

#### **Explanatory notes for the Legend**

- < 50-Much below normal 50-75%-Below normal
- 75-125% Normal
- >125% Above normal

#### **1.3. Moisture Condition** (1 – 10 May 2025)

As indicated on the moisture status map below during the first dekad of May 2025, over most of Belg rain benefiting and producing areas of the country exhibited Moist to Hyper Moist moisture condition. The rest parts of the countries exhibited moderately Dry too Very Dry.

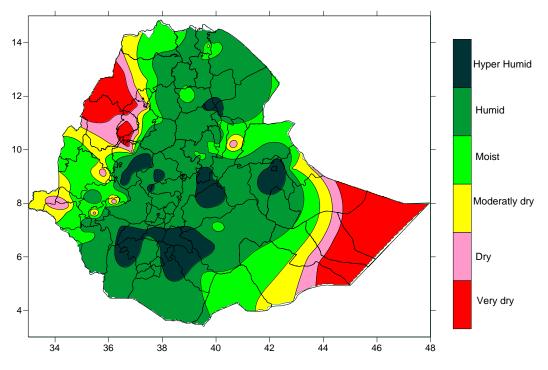


Fig. 3 moisture status for (1 - 10 May, 2025)

# 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

#### 2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the first dekad of May 2025, most of the country's Belg-growing and moisture benefiting areas experienced widespread moisture conditions, especially in the southern, south-eastern, central, northern, north-eastern, eastern and and south-western parts of the country, due to this exhibited good vegetation condition (Fig.4. NDVI and Rangeland WRSI in %) This situation might have positive impact to perform land preparation and planting for Meher long cycle crops as well as good opportunity water need of perennial plants, early sowed Belg crops and availability of pastors and drinking water over pastoral and agropastoral areas.

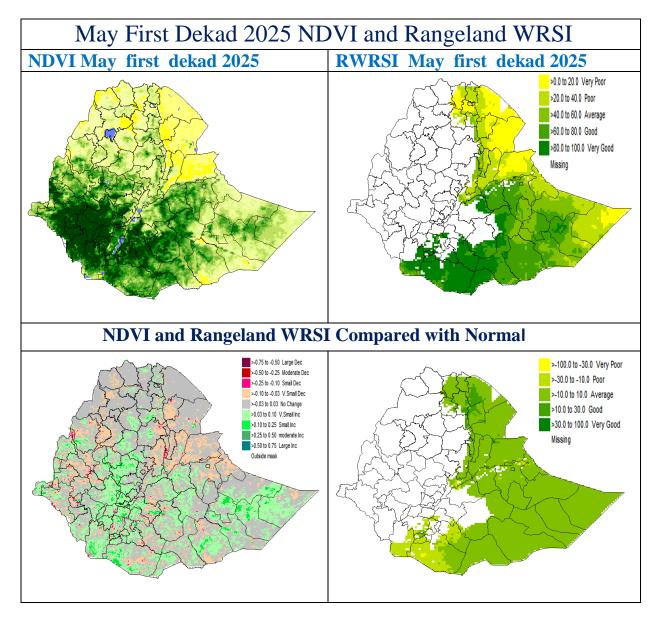


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - May 1-10, 2025

### 2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING SECOND DEKAD OF MAY 2025

In the coming May second dekad, the meteorological forecast information indicates that the seasonal rainfall activity is expected to good moisture both in quantity and distribution over most parts of Belg rainfall benefiting areas of the country. This situation might be expect to improve moisture requirement of Belg crops found at different phases of growth, perennial plants, pasture and drinking water availability in pastoral and agro pastoral areas and the anticipated better rainfall distribution towards the western half of the country would favour sowing activities of cereal crops like maize and sorghum and land preparation for the coming Meher season as well. Moreover the expected heavy rains over southwest, western and southern will create favourable conditions for the on-going agricultural activities However, the expected heavy fall over some areas of the aforementioned areas would have a negative impact on crop fields' particularly over low-lying areas and near river banks. Thus, proper attention should be undertaken to minimize the risk in areas where there is no proper drainage system and low-lying areas. On the contrary the expected improvement in moisture may also give good opportunity for collecting and storing of excessive rain water particularly for moisture stress areas and this may provide them a good chance to utilize it where that can be used in time of deficit.

#### 3. **DEFNITION OF TERMS**

ABOVE NORMAL RAINFALL: - Rainfall in excess of 125% of the long term mean

BELOW NORMAL RAINFALL: - Rainfall below 75 % of the long term mean.

NORMAL RAINFALL: - Rainfall amount between 75 % and 125 % of the long term mean.

**BEGA:** - It is characterized with sunny and dry weather situation with occasional falls. It extends from October to January. On the other hand, it is a small rainy season for the southern and south eastern lowlands under normal condition. During the season, morning and night times are colder and daytime is warmer.

**BELG:** - Small Rainy season that extends from February to May and cover s southern, central, eastern and north-eastern parts of the country.

**CROP WATER REQUIREMENTS:** - the amount of water needed to meet the water loss through evapotranspiration of a disease free crop, growing under non-restricting soil conditions including soil water and fertility.

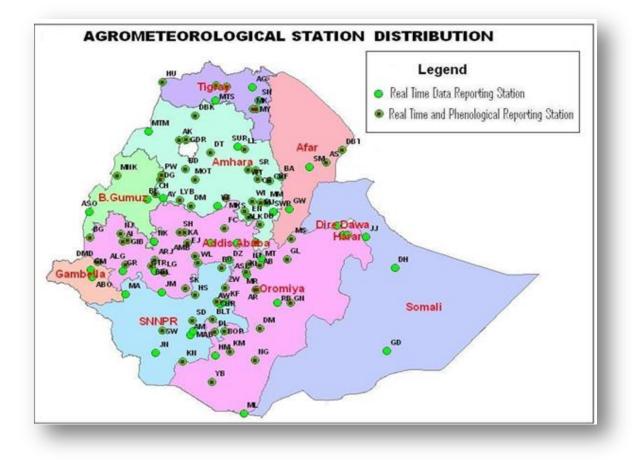
**DEKAD:** - First or second ten days or the remaining days of a month.

**EXTREME TEMPERATURE:**- The highest or the lowest temperature among the recorded maximum or minimum temperatures respectively.

**ITCZ:-** Inter-tropical convergence zone (narrow zone where trade winds of the two hemispheres meet.

**KIREMT:** - Main rainy season that extends from June to September for most parts of the country with the exception of the south-eastern lowlands of the country.

RAINY DAY: - A day with 1 or more mm of rainfall amount



| Station    | Code | Station  | Code | Station   | Code | Station         | Code |
|------------|------|----------|------|-----------|------|-----------------|------|
| A. Robe    | AR   | D. Zeit  | DZ   | Humera    | HU   | Nazereth        | NT   |
| A.A. Bole  | AA   | D/Dawa   | DD   | Jijiga    | JJ   | Nedjo           | NJ   |
| Adigrat    | AG   | D/Mena   | DOM  | Jimma     | JM   | Negelle         | NG   |
| Adwa       | AD   | D/Odo    | DO   | Jinka     | JN   | Nekemte         | NK   |
| Aira       | AI   | D/Tabor  | DT   | K.Dehar   | KD   | Pawe            | PW   |
| Alemaya    | AL   | Dangla   | DG   | K/Mingist | KM   | Robe            | RB   |
| AlemKetema | ALK  | Dilla    | DL   | Kachise   | KA   | Sawla           | SW   |
| Alge       | ALG  | Dm.Dolo  | DMD  | Koffele   | KF   | Sekoru          | SK   |
| Ambo       | AMB  | Dubti    | DBT  | Konso     | KN   | Senkata         | SN   |
| Arba Minch | AM   | Ejaji    | EJ   | Kulumsa   | KL   | Shambu          | SH   |
| Asaita     | AS   | Enwary   | EN   | Lalibela  | LL   | Shire           | SHR  |
| Asela      | ASL  | Fiche    | FC   | M.Meda    | MM   | Shola<br>Gebeya | SG   |
| Assosa     | ASO  | Filtu    | FL   | M/Abaya   | MAB  | Sirinka         | SR   |
| Awassa     | AW   | Gambela  | GM   | Maichew   | MY   | Sodo            | SD   |
| Aykel      | AK   | Gelemso  | GL   | Majete    | MJ   | WegelTena       | WT   |
| B. Dar     | BD   | Ginir    | GN   | Masha     | MA   | Woliso          | WL   |
| Bati       | BA   | Gode     | GD   | Mekele    | MK   | Woreilu         | WI   |
| Bedelle    | BDL  | Gonder   | GDR  | Merraro   | MR   | Yabello         | YB   |
| BUI        | BU   | Gore     | GR   | Metehara  | MT   | Ziway           | ZW   |
| Combolcha  | CB   | H/Mariam | HM   | Metema    | MTM  |                 |      |
| D. Berehan | DB   | Harer    | HR   | Mieso     | MS   |                 |      |
| D. Habour  | DH   | Holleta  | HL   | Moyale    | ML   |                 |      |
| D. Markos  | DM   | Hossaina | HS   | M/Selam   | MSL  |                 |      |
|            |      |          |      |           |      |                 |      |