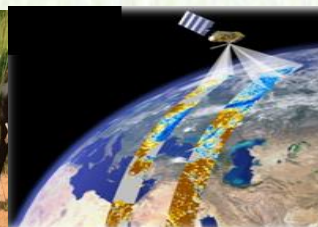


# ETHIOPIA METEOROLOGY INSTITUTE

## Agrometeorological Bulletin

### MONTHLY AGROMETEOROLOGICAL BULLETIN

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## TABLE OF CONIENTS

<b>FORE WARD.....</b>	<b>2</b>
<b>SUMMARY .....</b>	<b>5</b>
<b>1. WEATHER ASSESSMENT .....</b>	<b>7</b>
1.1. Rainfall amount (21 – 30) April 2025 .....	7
1.2. Rainfall Anomaly (21 – 30 April 2025).....	8
1.3. Moisture Condition (21 – 30 April 2025) .....	9
1.4. Rainfall amount on the month of April 2025 .....	10
1.5. Rainfall Anomaly on the month of April 2025 .....	11
1.6. Moisture status on the month of April 2025 .....	12
<b>2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE.....</b>	<b>13</b>
2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE ON THE MONTH OF APRIL 2025 .....	13
2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH OF MAY 2025 .....	14
<b>3. DEFNITION OF TERMS.....</b>	<b>15</b>

## **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.

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## አህፅሮት እ.ኤ.አ ኤፕሪል 2025

ባሳለፍነው የኤፕሪል የመጀመሪያው አስር ቀናት በአብዛሃኛው የበልግ አብቃይና እርጥበት ተጠቃሚ በሆኑት የሀገሪቱ አካባቢዎች ላይ በመጠንም ሆነ በስርጭት የተስፋፋ እርጥበት የነበራቸው ሲሆን በተለይም በደቡብ፣ በደቡብ ምዕራብ እና በምዕራብ የአገሪቱ ክፍሎች ላይ ከቀላል እስከ ከባድ መጠን ያለው የእርጥበት ሁኔታ ነበራቸው፡፡ ይህም ሁኔታ የአፈር ውስጥ እርጥበትን በማሻሻል በልግ አብቃይ ለሆኑት አካባቢዎች ቀደም ብለው ተዘርተው በቡቃያ ደረጃ ለሚገኙ የበልግ ሰብሎች እድገት እንዲሁም ለመኸር ተጠቃሚ አካባቢዎች ለማሳ ዝግጅት የጎላ ጠቀሜታ ነበረው፡፡ በተጨማሪም ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት እና ለአርብቶ አደርና ከፊል አርብቶ አደር አካባቢዎች የግጦሽ ሳርና የመጠጥ ውሃ አቅርቦት ከማሻሻል አንጻር አዎንታዊ ሚና ነበረው፡፡

ባሳለፍነው የኤፕሪል ሁለተኛው አስር ቀናት በአብዛሃኛው የበልግ አብቃይና እርጥበት ተጠቃሚ በሆኑት የሀገሪቱ አካባቢዎች ላይ በተለይም በደቡብ፣ በመካከለኛው፣ በደቡብ ምስራቅ እና በምስራቅ የሀገሪቱ ክፍሎች ላይ ከመካከለኛ እስከ ከባድ መጠን ያለው የእርጥበት ሁኔታ ነበራቸው፡፡ ይህም ሁኔታ የአፈር ውስጥ እርጥበትን በማሻሻል ቀደም ብለው ተዘርተው በቡቃያ ደረጃ ለሚገኙ የበልግ ሰብሎች እድገት እንዲሁም ለመኸር ተጠቃሚ አካባቢዎች ለማሳ ዝግጅትና እንደ በቆሎ እና ማሽላ የመሳሰሉ የረዥም ጊዜ ሰብሎችን ለመዝራት የጎላ ጠቀሜታ ነበረው፡፡ በተጨማሪም ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት እና ለአርብቶ አደርና ከፊል አርብቶ አደር አካባቢዎች የግጦሽ ሳርና የመጠጥ ውሃ አቅርቦት ከማሻሻል አንጻር አዎንታዊ ሚና ነበረው፡፡ በሌላ በኩል በከምባታ ዞን ዳምቦያ ወረዳ በነበረው ንፋስ በቀላቀለ ከፍተኛ ዝናብ በጉልባና ህዳሴ ሁለተኛ ደረጃ ት/ት ቤት ላይ ከፍተኛ ጉዳት አድርጓል፡፡

ባለፉት የኤፕሪል የመጨረሻው አስር ቀናት የበልግ አብቃይና ዝናብ ተጠቃሚ በሆኑት በደቡብ፣ በደቡብ ምስራቅ፣ በሰሜን ምስራቅ፣ በምስራቅ እና በደቡብ ምዕራብ የሀገሪቱ አካባቢዎች ላይ የተገኘው እርጥበት ቀደም ብለው ለተዘፋና በተለያየ የእድገት ደረጃ ላይ ለሚገኙ የበልግ ሰብሎች፣ ለጓሮ አትክልቶችና ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት ከፍተኛ ጠቀሜታ ነበረው፡፡ በተጨማሪም የነበረው እርጥበት ቀደም ብለው ከኤፕሪል ወር ጀምሮ ለሚዘፋ የመኸር ወቅት ሰብሎችን ዘር ለመዝራት



እና ለማሳወቅ ዝግጅት ምቹ ሁኔታ ነበረው። ከዚህም በተጨማሪም የተገኘው እርጥበት በአርብቶ አደርና ከፊል አርብቶ አደር አካባቢዎች ለመጠጥ ውሃና ለግጦሽ ሣር አቅርቦት መሻሻል የጎላ ጠቀሜታ እንደነበረው ተስተውሏል። በተመሳሳይ ሁኔታ በአንዳንድ ሥፍራዎች ላይ የነበረው ከፍተኛ መጠን ያለው እርጥበት በአንዳንድ እርጥበት አጠር በሆኑት አካባቢዎች የዝናብ ውሃን ለማሰባሰብና ለማከማቸት መልካም አጋጣሚን ፈጥሯል።

ባሳለፍነው የኤፕሪል ወር በተለይም የበልግ አብቃይና ዝናብ ተጠቃሚ በሆኑት በደቡብ፣ በመካከለኛው፣ በሰሜን ምስራቅ፣ በምስራቅ፣ በደቡብ ምስራቅ እና በምስራቅ የሀገሪቱ አካባቢዎች ላይ የተገኘው እርጥበት የበልግ የእርሻ ስራ እንቅስቃሴን ለማከናወን፣ ቀደም ብለው ለተዘፋና በተለያየ የእድገት ደረጃ ላይ ለሚገኙ የበልግ ሰብሎች፣ የጓሮ አትክልቶችና ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት ከፍተኛ ጠቀሜታ ነበረው። በተጨማሪም የተገኘው እርጥበት አስቀድመው ለሚዘፋ የመኸር ወቅት ሰብሎች ማሳን ለማዘጋጀትም ሆነ ዘር ለመዝራት ምቹ እንደነበረ የተተነተኑ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። እንዲሁም ለአርብቶ አደርና ከፊል አርብቶ አደር አካባቢዎች ለመጠጥ ውሃና ለግጦሽ ሣር አቅርቦት መሻሻል የጎላ ጠቀሜታ ነበረው።

በሌላ በኩል በአንዳንድ ሥፍራዎች ላይ የነበረው ከፍተኛ መጠን ያለው እርጥበት በረባዳማ እና የአፈር ጸባያቸው ውሃን በማያሰርጉ እና በወንዝ ዳርቻ አካባቢዎች በሚገኙ ማሳዎች ላይ መጠነኛ የሆነ የውሃ በሰብሎች ላይ መተኛት እና በጎርፍ የመጠረግ ሁኔታዎች ነበሩ። በተጨማሪም በተከታታይ ቀናት በነበረው ዝናብ በጎሩ ዞን ገዜ ጎሩ ወረዳ የመሬት ናዳ እና ጎርፍ ተከስቶ በሰው እና ንብረት ላይ ጉዳት አድርጏል።

## **SUMMARY**

### **APRIL 2025**

During the first dekad of April 2025, most of the country's Belg-growing and moisture benefiting areas experienced widespread moisture conditions, especially in the south, southwest, and western parts of the country. This improved soil moisture, which was beneficial for the growth of early-sown Belg crops in the Belg-growing areas and for the preparation of fields for the meher growing areas. It also played a positive role in meeting the water needs of permanent crops and improving the availability of pasture and drinking water for pastoral and semi-pastoral areas.

During the second dekad of April 2025, due to the relative strengthening of rain bearing weather systems better moisture has been relatively improving over Belg rain benefiting and growing areas of the country, particularly over southern, central, south-eastern and eastern parts of the country experienced moist to hyper humid moisture. This condition might have positive impact to perform land preparation and planting for Belg season crops in areas where the rain onset was a bit delayed from its normal time of sowing as well as for perennial plants and early sowed crops. In addition, the condition had been favourable toward improving the availability of pasture and drinking water over the pastorals and agro-pastoral communities. Moreover, the obtained heavy rainfall could be favourable, for farmers who are in moisture stress areas, to collect and store rainwater where that can be used in time of deficit.

During the third dekad of April 2025, According to the analyzed 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. .

Generally during the month under review, the rain bearing meteorological phenomena was strengthening in amount and distribution over much of Belg rain benefiting and growing. In line with this better moisture condition was prevailed over southern, central, south-eastern, north-eastern and eastern parts of the country. This situation might have positive impact on moisture requirement of different Belg and Meher long cycle crops found at various phases of growth, perennial plants, general agricultural activities, 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 ongoing 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. In addition, the continuous rains in the Gofa Zone Geze Gofa Woreda caused landslides and floods, causing damage to people and property.

# 1. WEATHER ASSESSMENT

## 1.1. Rainfall amount (21 – 30) April 2025

During 3<sup>rd</sup> decade of April 2025 the rain fall ditrbution was tip areas of Illibabur Jimma, Keffa , Gedo and Bale zones are recived 50n-100 mm rain fall. Some areas of Metkel, Gambella Zone 1,2&3, Godere, sheka, Bench maji, Basketo, South Omo, Konso, Dawero, Basketo, Gedeo, half of Borena, Guji, Liben,and Wardar zones are received 25 -50 mm rain fall. Half of North Gonder, North Wello, Waghimera, tip areas of Assosa, Kamasi, East Wellega, west and south West Shewa, Gurahi, Siliti, Alaba, Hadiya, Guji, Amaro, Borena, Liben, Afder, Bali, Arsi, Fik, Gode, Shinili, Jijiga, Degahabure, Korahi, Wardar Zones are received 5-25mm rain fall . the rest part of the country was recived <5mm rain fall.

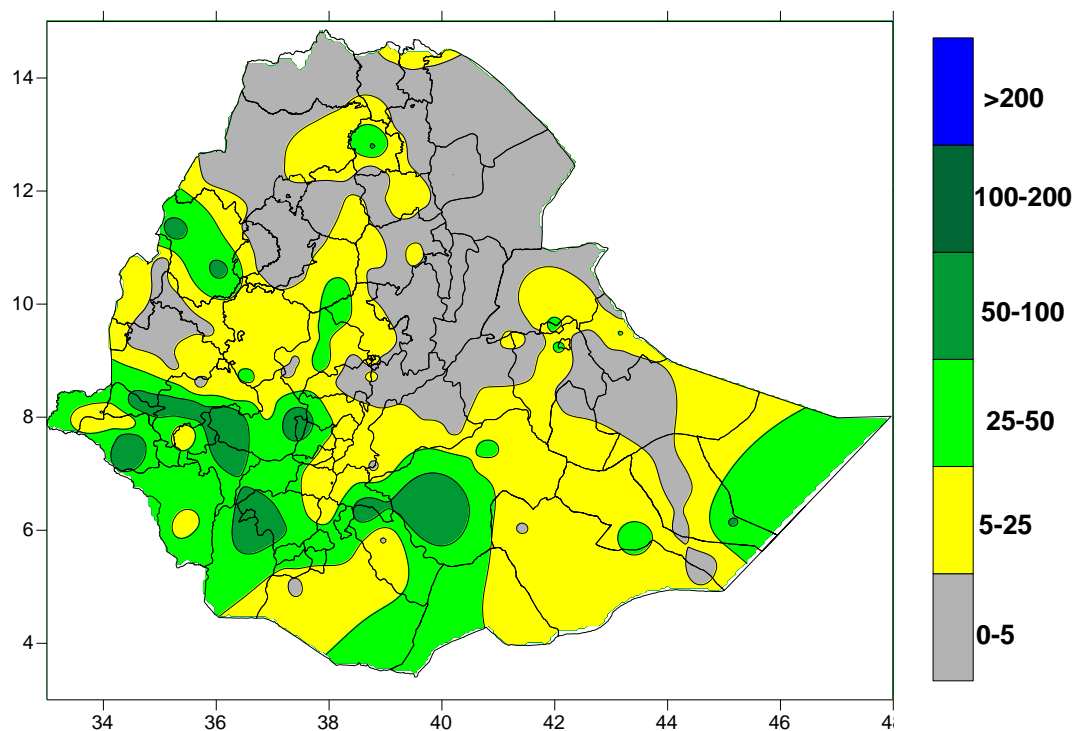


Fig 1.Rainfall distribution in mm (21 – 30) April 2025



## 1.2. Rainfall Anomaly (21 – 30 April 2025)

When we look at the rainfall anomaly map below, during the third decade of April 2025, some parts of Western, South Western, central and South Eastern areas of the country were exhibited Normal to Above Normal rainfall. The rest part of the country was Below Normal to Much Below Normal rainfall.

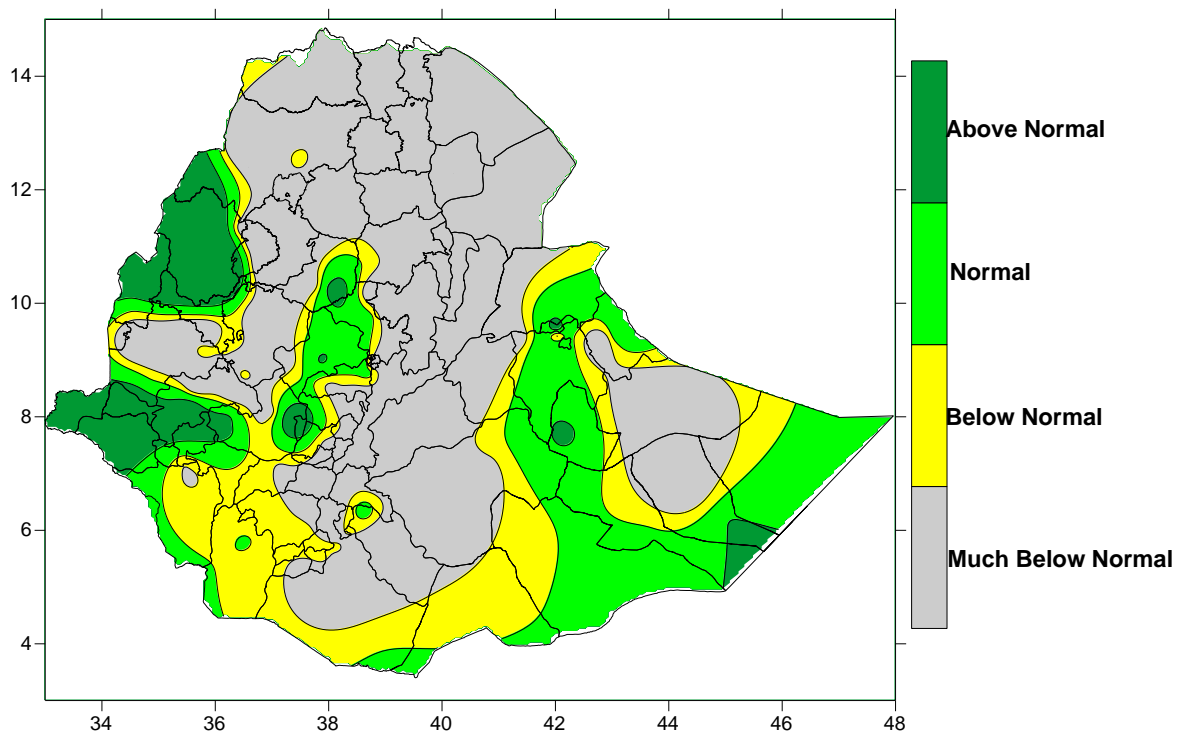


Fig. 2 Percent of normal rainfall distribution (21 – 30) April 2025

### Explanatory notes for the Legend

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

### 1.3. Moisture Condition (21 – 30 April 2025)

As indicated on the moisture status map below during third dekad of April 2025, Over Liben, Afder, Bale, Guji, Drashe, Konso, south Omo, Basketo, Gamogofa, Keffa, Dawuro, Yem, Gambela zone 1, 2 & 3, Illubabor, Metekel, Waghimira, Fik, east Harergie, Borena, Amaro, Burji, Welayita, Sidama, KT, Alaba, Selti, Gurage, Jimma, west Wellega, Tongo, Gode, north Shewa, south Wollo, east Gojam and Assosa zones exhibited Humid to Moist moisture condition. The rest parts of the countries exhibited moderately dry to very dry.

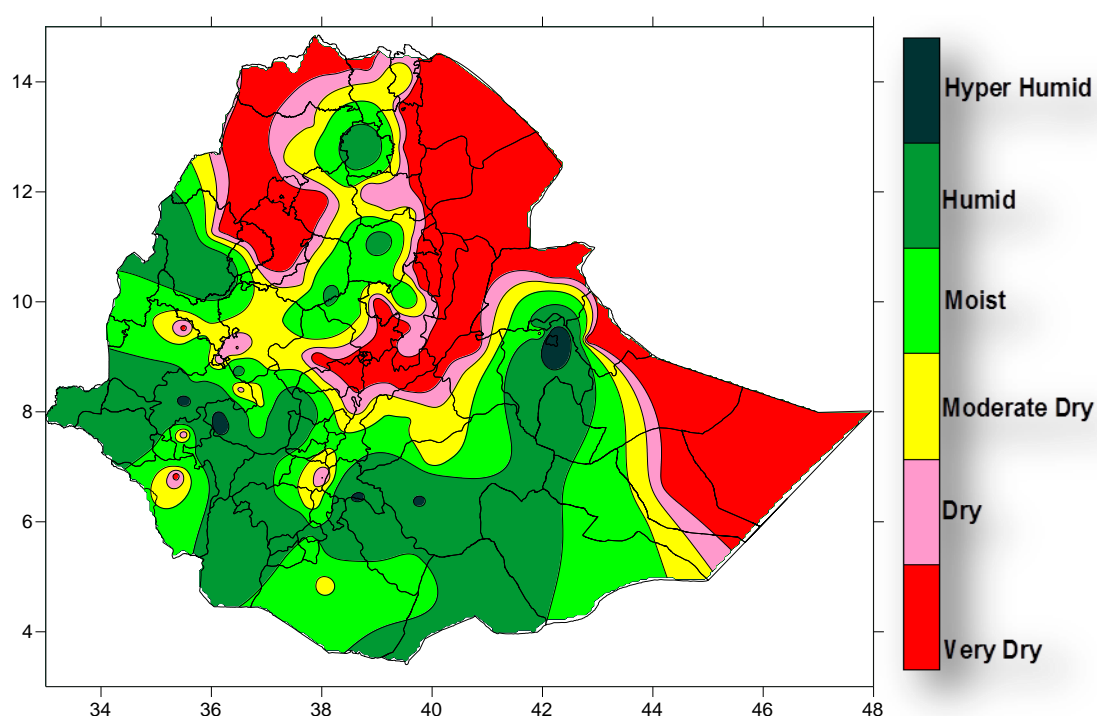


Fig. 3. Moisture status (21 – 30) April 2025

#### 1.4. Rainfall amount on the month of April 2025

During April 2025 monthly distribution of total rain fall was cover most part of Bench Maji Basketo and South Omo Tip areas of Gedeo and Guji zones are recivd >200 mm rain fall. Most part of North Gonder tip areas of Waghimera, South Wello, East Gojjam, Metkel, Assosa, Kemasi, Tango West and East Wellega South QESTAND West Shewa, Illibabur, Jimma, Guragi, Siliti, Gambella Zone 2,2&3, Godere, Keffa, Dawero, Bench Maji, Konso, Amaro, Borena, Guji, Bali, Liben, half of Afder and Gode, Korahi Wardar, Degahabur, Bale, Arsi zones are recived 50-200 mm rain fall. the rest part of the country was recived 5-50 mm rain fall except Afar Zone 1 and half of zone 1 zones are received <5mm rain fall.

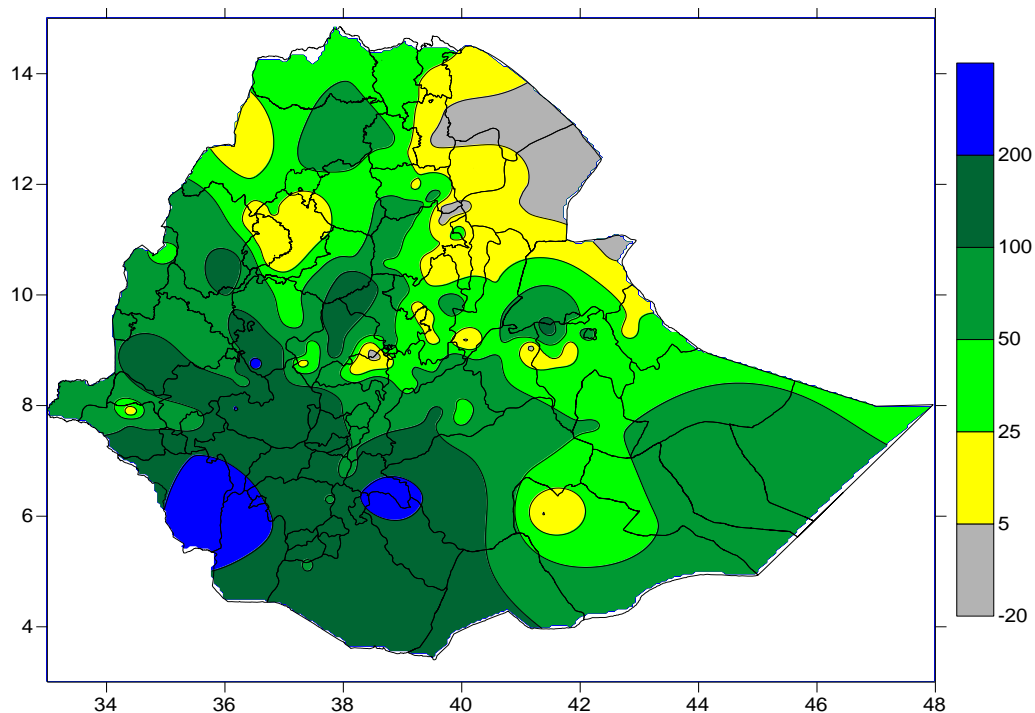


Fig 4. Rainfall amount in mm for the month of April 2025

### 1.5. Rainfall Anomaly on the month of April 2025

When we look at to the rainfall anomaly map below, during the month of April 2025 most part of the country particularly Northern North Western, Western, Central, South Western, Southern and South Eastern areas of the country exhibited Normal to above normal rain fall. The rest part of North Eastern areas exhibited much below normal rain fall.

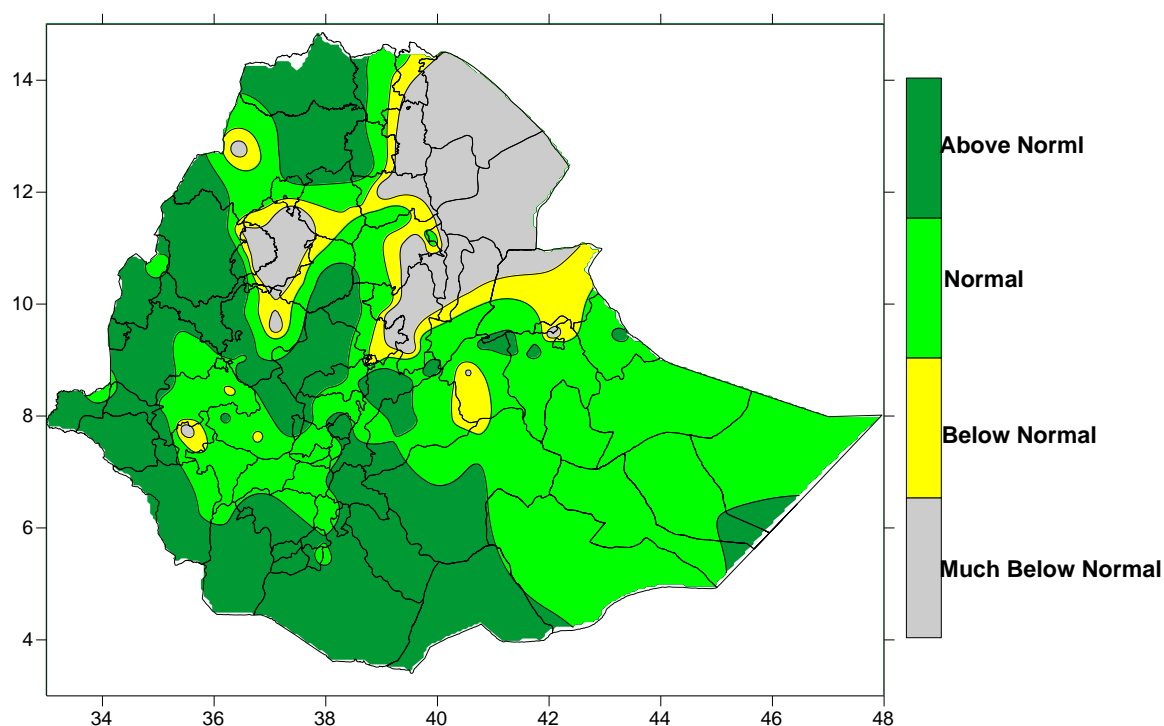


Fig. 5 Percent of Normal Rainfall for the month of April 2025

#### Explanatory notes for the Legend

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

### 1.6. Moisture status on the month of April 2025

As indicated on the moisture status map below during the month of April 2025, Borena, Amaro, Konso, Burji, Drashe, south Omo, Basketo, Gamogofa, Gedeo, Guji, Liben, Afder, Gode, Korahe, Fik, east Harergie, Harar, west Harergie, Arsi, Bale, Sidama, Welayita, Dawuro, Hadiya, KT, Alaba, Selti, Yem, Jimma, Kefa, Bench Maji, Godere, Gambela zone 1, 2 & 3, Illubabor, west Wellega, Tongo, Gurage, east Shewa, south west Shewa, Addis Ababa, west Shewa, east Wellega, north Shewa, Kamashi, Assosa, Metekel, south wollo, north Gonder and Waghimira zones exhibited Humid to Moist moisture condition. The rest parts of the countries exhibited moderately dry to very dry.

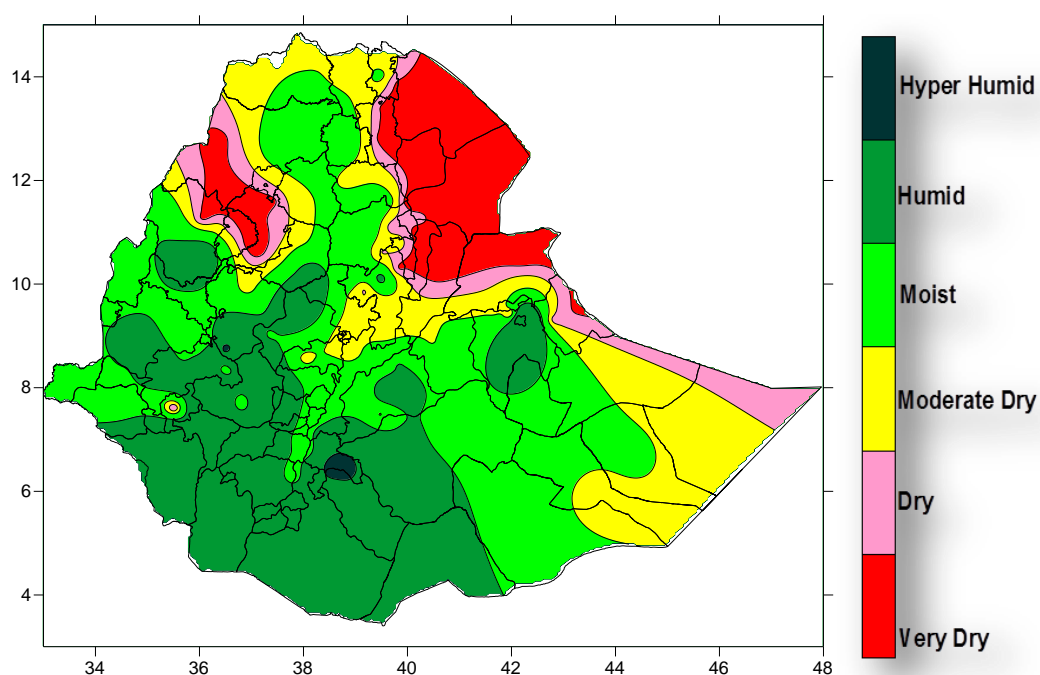


Fig. 6. Moisture status for the month of April 2025



## 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

### 2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE ON THE MONTH OF APRIL 2025

Generally during the month of April, due to the relative strengthening of rain bearing meteorological systems better moisture has been steadily improving dekad by dekad, In line with this most of Belg rain receiving areas experienced good moisture over southern, central, south-eastern, north-eastern and eastern parts of the country.. Due to increment of moisture the vegetation condition across the country indicated average and above average vegetation condition (Fig.7. NDVI and Fig.8.Rangeland WRSI in %) which condition was satisfy the water need of perennial plants and highly favourable the generation of pasture and the availability of drinking water.

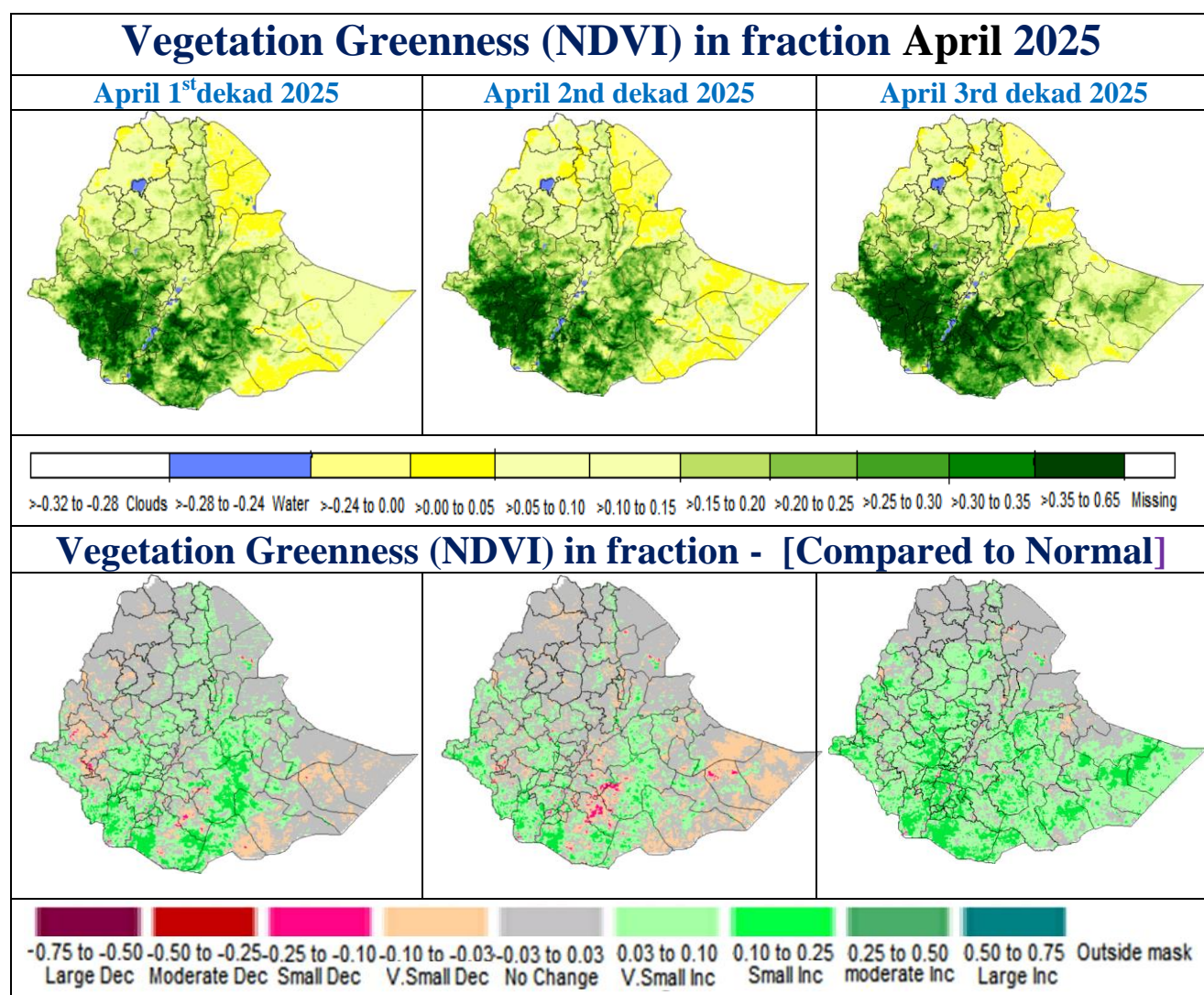


Fig. 7. Vegetation Greenness (NDVI) in fraction and Compared to Normal April 2025.

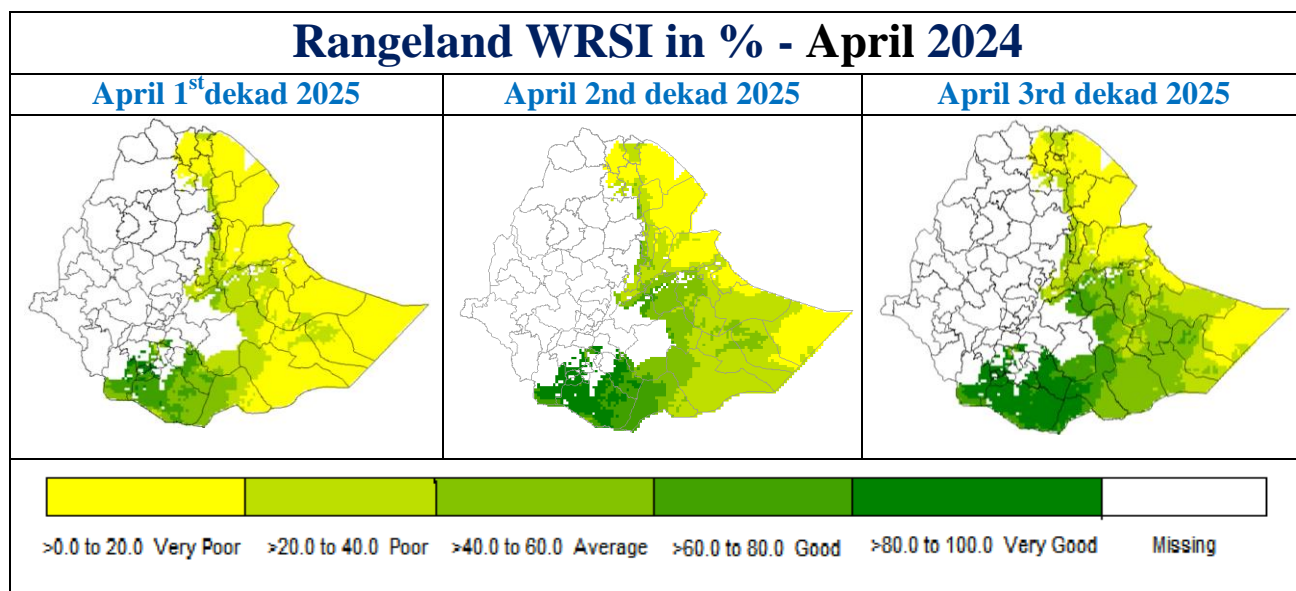


Fig.8. Rangeland WRSI in % and Compared to Normal - April 2025

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

In the coming month of May 2025, the meteorological forecast information indicates that the seasonal rainfall activity is expected to better moisture both in quantity and distribution than the previous Belg months. In line with this, in most parts of the country expected slight to heavy rain fall. 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 south, southeast, southwest and adjacent areas of Rift Valley 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 making furrow and channel in order to reduce the effect of excess rain. 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. DEFINITION 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 covers 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

