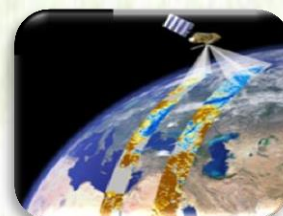


# ETHIOPIA METEOROLOGY INSTITUTE

## Agrometeorological Bulletin

### TEN DAY AGROMETEOROLOGICAL BULLETIN

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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.

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## SUMMARY

During the third dekad of June 2024, agricultural meteorology data collected and analysed indicated that most areas that benefited from Kiremt rains and Meher crops had moisture that reached many places. The rain-bearing meteorological phenomena were strengthening in amount and distribution, especially in the western and central parts, and mostly in many parts of the Kiremt rainfall benefiting areas of the country. This situation was favourable for satisfying the water needs of various long-term crops that had already been sown or were in the process of being sown, as well as vegetables and permanent plants in various stages of growth. Additionally, for pastoralists and semi-pastoralists located in the eastern parts of the country, the moisture obtained played a positive role in improving both man-made and natural sources, providing better drinking water and grazing grass. On the other hand, the heavy rainfall in some areas, combined with the continuous moisture of the past few days, could cause excess moisture in the soil in a few areas, but it did not have a significant negative impact on agricultural activity.

During the first dekad of July 2024, according to the analyzed agro-meteorological information, most of crop growing as well as Kiremt season rain benefiting areas experienced enhanced moisture situation in amount and distribution. In relation with the enhanced moisture condition heavy rainfall 30mm and above during 24hrs period were reported at several agro-meteorological stations. The observed enhanced moisture might be favorable to sustain the growth and fulfill the daily water need of early planted Meher season crops including long and medium cycle crops and perennial plants. The observed moisture was positive to conduct land preparation and sowing of crops which will be sown after July. The expanded moisture over the southern, eastern and north-eastern pastoral and agro pastoral areas could have positive implication to ensure the availability of pasture and drinking water and replenish both artificial and natural water points as well. On the other hand, the recorded heavy rainfall might trigger flash flood occurrence and water logging due to excess moisture.



# 1. WEATHER ASSESSMENT

## 1.1. Rainfall amount (1 – 10 July 2024)

During the First dekad of July 2024, pocket areas of North Gonder were received above 200 mm rainfall and most parts of North Gonder, South Gonder, Bahirdar, pocket areas of East Gojam, dividend areas of East Wellega, Jimma, and Illubabor, West and Northwest Shewa, South Wollo zones were received 100-200mm rainfall. In addition to this, most parts of East and West Wellega, Assossa, Illubabor, Jimma, Sheka, Keffa, Godere, Guraghe, Silite, all Shewa Zones, North, South, West and Central Gonder zones, Bahirdar, Waghimira, Agew Awi, West Tigray, East Gojam, and South Wollo Zones and some parts of Arsi Zones were received 50-100mm rainfall. In addition to this North Wollo, East Tigray and West Tigray, Oromia Special Zones, parts of Gamogofa, Alaba, Keffa, Dawro, Godere, Gambela 1 and 2 Zones were prevailed 25-50mm rainfall. However, South and Central Tigray, parts of North Wollo, Afar 2, 3 and 5 Zones, Shinle, East and West Hararghe, Jigjiga, Hadiya, Wolayta, Sidama, Bench Maji, Basketo and Gedeo Zones were experienced 5-25mm of rainfall. However, the rest part of the country especially Southern and Southeastern and half of Northeastern parts of the country was received 0-5 mm of rain fall.

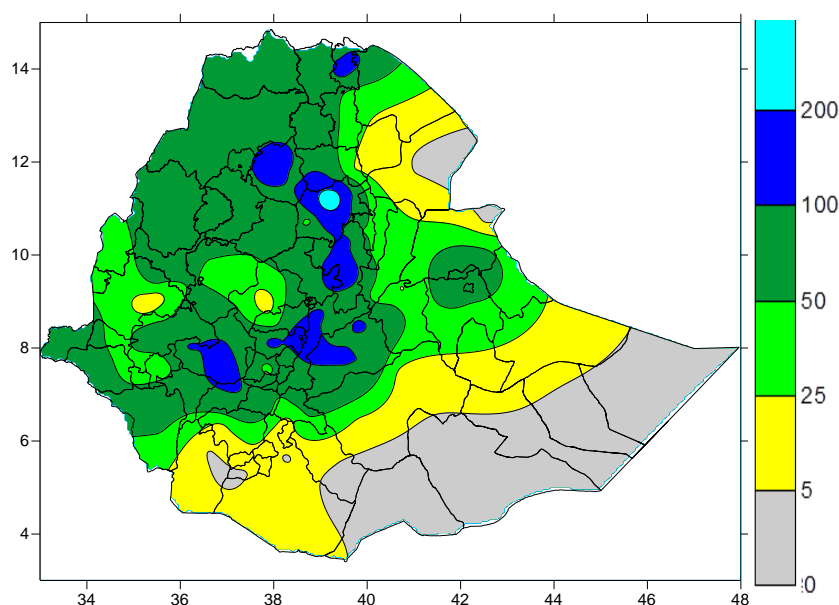


Figure.1 Rainfall distribution in mm (1 – 10) July 2024

## 1.2. Rainfall Anomaly (1 – 10 July 2024)

When we look at to the rainfall anomaly map below, during the First dekad of July 2024, except parts of western, south western and north eastern parts of the country were exhibited Normal to Above Normal Rain

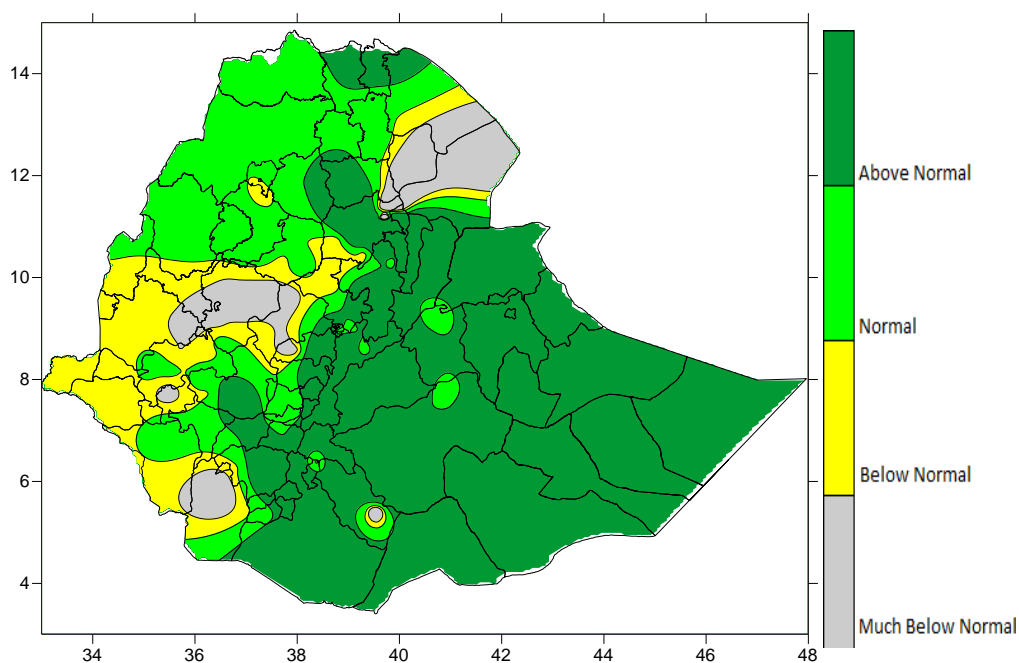


Fig.2. Percent of normal rainfall distribution (1 – 10 July, 2024)

### 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 July 2024)

As indicated on the moisture status map below during first dekad of July 2024 most parts of Western half and Southwestern and some Northwestern parts of the country exhibited Moist to Hyper Moist moisture condition. The moisture performance of June 1<sup>st</sup> dekad have a positive impact to perform land preparation and planting for Meher crops as well as for perennial plants, Vegetables, early sowed crops and availability of pastors and drinking water over pastoral and agro-pastoral areas. The rest parts of the countries exhibited moderately dry to very dry.

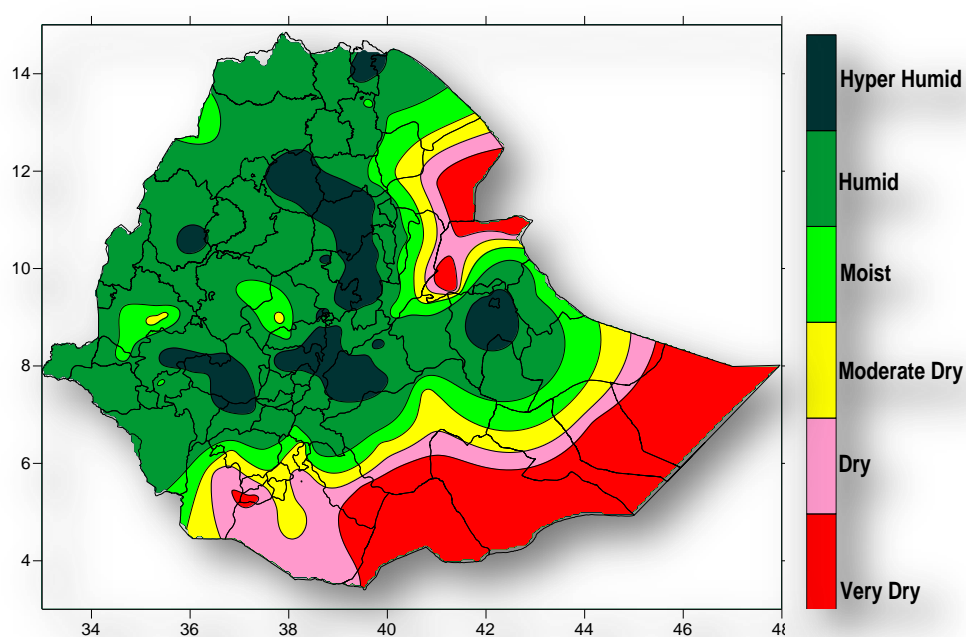


Fig. 3 moisture status for (1 – 10 July, 2024)

## 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

### 2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the first dekad of July, due to the relative strengthening of rain bearing meteorological systems good moisture conditions has been experienced over Meher producing and rain benefiting areas of the country, according to this increment the vegetation condition expanded across Kiremt rain benefiting parts of the country (Fig.4. NDVI and Rangeland WRSI in %). This condition might have positive impact to sustain the growth and fulfill the daily water need of early planted Meher season crops including long and medium cycle crops, perennial plants and availability of pastors and drinking water over pastoral and agro-pastoral areas.

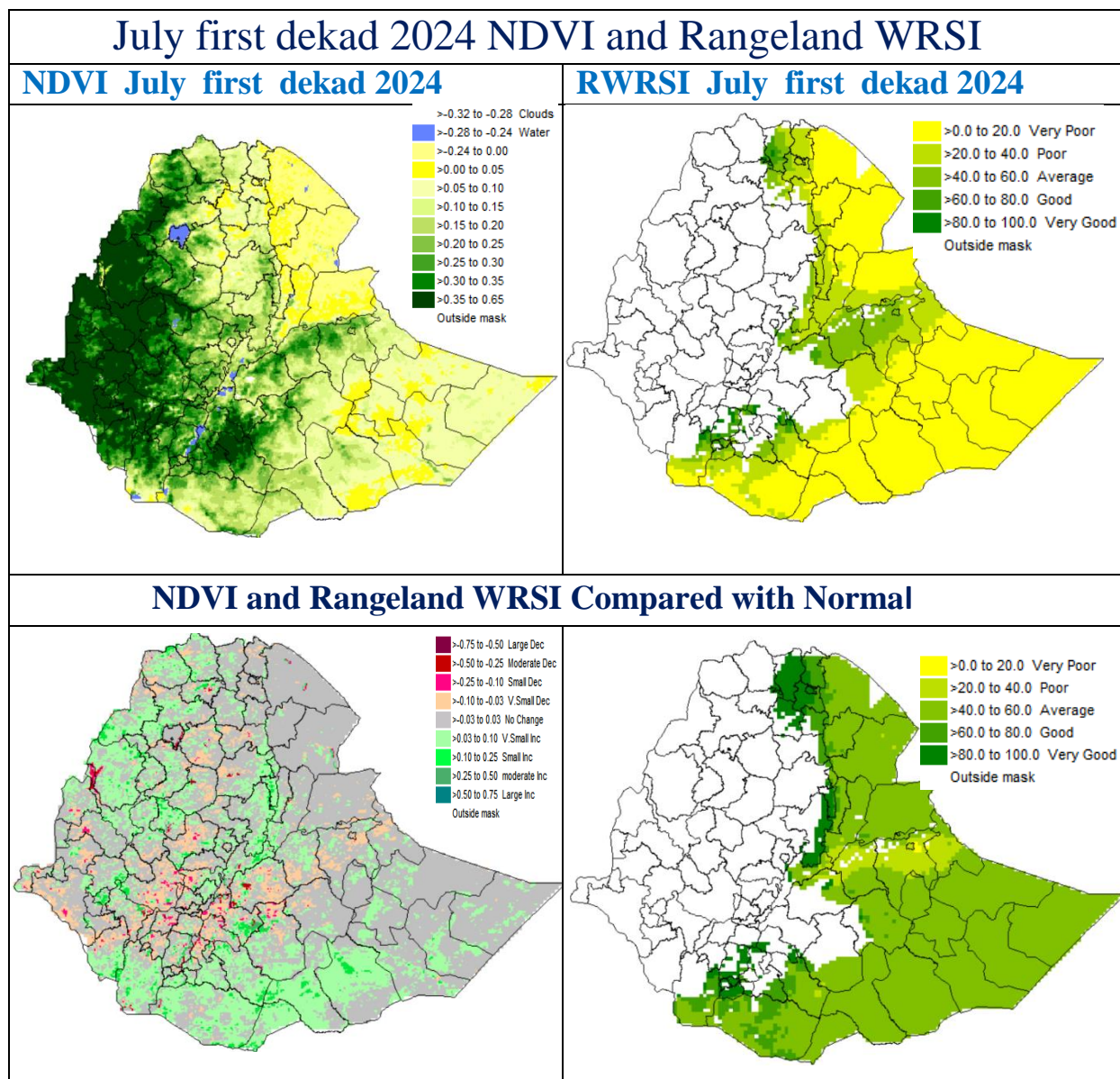


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - July 1-10, 2024



## **2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THECOMING SECOND DEKAD OF JULY 2024**

Normally, the second ten days of July is the time when the moisture gets stronger in most of the Kiremet crop growing areas, and in terms of agricultural activities, it is the time when the soil moisture needed for the crops that have already been sown is sufficient and a favorable condition is created for the crops that will be sown.

In the coming second dekad of July 2024, the meteorological forecast information indicates that the seasonal rainfall activity is expected to continue in a good amount and distribution over much of Kiremt rainfall benefiting area of the country. The situation will favor ongoing meher agricultural activities which are at different phenological stages in terms of crop water requirement such as water availability of short and long cycle Meher crops found at different phases, water needs of fruit, Vegetables perennial plants and availability of pasture and drinking water over eastern and north eastern pastoral and agro pastoral areas. On the other hand, the expected continuous and high humid moisture condition might have negative impact on the normal growth and development of crops particularly in areas where normally affected by excess moisture condition and also will cause for flash flood and water logging on crops field in low lying areas. Thus, proper attention should be undertaken to minimize the risk in areas where there is no proper drainage system and low-lying areas making channel, to reduce the effect of excess water. Moreover, the continuous and widespread rainfall over some parts might create conducive condition for weed infestation which can be aggressive at the time of excess moisture condition. Therefore proper attention should be taken to minimize the risk due to the expected excesses moisture condition.

### **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 June 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

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