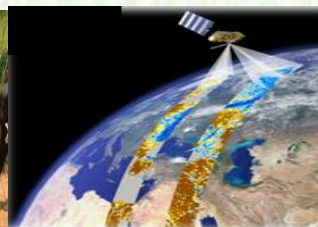


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TABLE OF CONIENTS

FORE WARD	2
SUMMARY	6
1. WEATHER ASSESSMENT	8
1.1. Rainfall amount (21 – 31) July 2024.....	8
1.2. Rainfall Anomaly (21 – 31 July 2024).....	9
1.3. Moisture Condition (21 – 31 July 2024)	10
1.4. Rainfall amount on the month of July 2024.....	11
1.5. Rainfall Anomaly on the month of July 2024	12
1.6. Moisture status on the month of July 2024	13
2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE	14
2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE ON THE MONTH OF JULY 2024	14
2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH OF AUGUST 2024.....	15
3. DEFNITION OF TERMS.....	16

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

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አህፅሮት እ.ኤ.አ ጁላይ 2024

ባለፉት አስር ቀናት በአብዛኛው የክረምት ዝናብ ተጠቃሚና የመኸር ሰብል አብቃይ አካባቢዎች ላይ ብዙ ቦታዎችን ያዳረሰ እርጥበት እንደነበራቸው የተሰበሰቡና የተተነተኑ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመላክታሉ። ይህም የተገኘው እርጥበት ከጁላይ ጀምሮ ለሚዘሩ የተለያዩ የመካከለኛ ጊዜ ሰብሎች ለመዝራትና በታቀደው መሰረት የግብርና እንቅስቃሴን ለማከናወን አመቺ ሁኔታ የነበረው ሲሆን፤ አስቀድሞው ተዘርተው በተለያዩ የእድገት ደረጃ ላይ ለሚገኙ የመኸር ሰብሎች የውሃ ፍላጎታቸውን ከሟሟላት አንፃር የጎላ ሚና ከመኖሩም በላይ ከኤፕሪል ጀምሮ ቀደም ብለው ለተዘሩ እንደ በቆሎና ማሽላ ለመሳሰሉ የረጅም ጊዜ የመኸር ሰብሎች፤ ለተለያዩ ቋሚ ተክሎችና የጓሮ አትክልቶች በተሟላ ሁኔታ እንዲያድጉ የጎላ አስተዋፅዖ ነበረው። በተጨማሪም በአርብቶ አደርና በከፊል አርብቶ አደር አካባቢዎች የነበረው እርጥበት የተፈጥሮም ሆነ የሰው ሰራሽ ምንጮችን ከማጎልበቱም በላይ የተሻለ የመጠጥ ውሃና የግጦሽ ሳር አቅርቦት እንዲኖር አዎንታዊ ሚና ነበረው። በሌላም በኩል በአንዳንድ አካባቢዎች ላይ የነበረው ከባድ ዝናብ እንዲሁም ባላለፍናቸው ቀናት በተከታታይ ዝናብ በማግኘት ላይ በነበሩ ቦታዎች ላይ የአፈር ውስጥ እርጥበት መብዛት እና በአንዳንድ ቦታዎች ላይ ለወንዝ መሙላትና ለጎርፍ ተጋላጭ በሆኑ አካባቢዎች ላይ የጎርፍ መከሰት የነበረ ቢሆንም፤ በግብርናው አንቅስቃሴ ላይ ያደረሰው የጎላ አሉታዊ ተፅዕኖ አልነበረም።

ባለፉት አስር ቀናት በአብዛኛው የክረምት ዝናብ ተጠቃሚና የመኸር ሰብል አብቃይ በሆኑት አካባቢዎች ላይ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ እንደነበራቸው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡና የተተነተኑ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመላክታሉ። ይህም የተገኘው እርጥበት ከጁላይ ጀምሮ ለሚዘሩ የተለያዩ የመካከለኛ ጊዜ ሰብሎች ለመዝራትና በታቀደው መሰረት የግብርና እንቅስቃሴን ለማከናወን አመቺ ሁኔታ የነበረው ሲሆን፤ አስቀድሞው ተዘርተው በተለያዩ የእድገት ደረጃ ላይ ለሚገኙ የመኸር ሰብሎች የውሃ ፍላጎታቸውን ከሟሟላት አንፃር የጎላ ሚና ከመኖሩም በላይ ከኤፕሪል ጀምሮ ቀደም ብለው ለተዘሩ እንደ በቆሎና ማሽላ ለመሳሰሉ የረጅም ጊዜ የመኸር ሰብሎች፤ ለተለያዩ ቋሚ ተክሎችና የጓሮ አትክልቶች በተሟላ ሁኔታ እንዲያድጉ የጎላ አስተዋፅዖ ነበረው አልፎ አልፎም ወደ ደቡብ፣ ሰሜን ምስራቅ እና የምስራቅ የሀገሪቱ ስፍራዎች ላይ ተስፋፍቶ የነበረው እርጥበት በአካባቢው ለሚካሄደው የእርሻ እንቅስቃሴ እንዲሁም ለአርብቶ አደሮችና ከፊል አርብቶ አደር አካባቢዎች ለመጠጥ ውሃና ለግጦሽ ሳር ልምላሜ ጥሩ አስተዋጽኦ የነበረው ከመሆኑም በላይ ሰው ሰራሽም ሆነ የተፈጥሮ ምንጮችን ከማጎልበት አንፃር አወንታዊ ሚና ነበረው።

በአንፃሩ በአንዳንድ አካባቢዎች በተለይም በሰሜን አጋማሽ፣ በመካከለኛው፣ በደቡብ ምዕራብና በምሥራቅ የሀገሪቱ ክፍሎች ላይ የነበረው ከባድ ዝናብ እንዲሁም ባላለፍናቸው ቀናት በተከታታይ ዝናብ በማግኘት ላይ በነበሩ ቦታዎች ላይ በተለይም በዝዋይ፣ በጅማ፣ በዳንግላ፣ በአጽቢ፣ በሐረሪ፣ በዳሊፋጊ እና በሰመራ የነበረው ከፍተኛ እርጥበት በተለያየ የእድገት ደረጃ ላይ ባሉ ሰብሎች የአፈር ውስጥ እርጥበት መብዛት፣ በማሳ ላይ ውሀ መተኛት እና በእንስሳት እንዲሁም በንብረት ላይ አሉታዊ ተፅዕኖ ነበረው።

ባላለፍነው የጁላይ ሶስተኛው አስር ቀናት ባለፉት አስር ቀናት በአብዛኛው የክረምት ዝናብ ተጠቃሚ በሆኑት የሀገሪቱ ክፍሎች በመጠን የተስፋፋና ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ እንደነበራቸው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡና የተተነተኑ የግብርና ሚኒስቴሮች መረጃዎች ያመለክታሉ። ይህም ሁኔታ ከኤፕሪል ጀምሮ ለተዘሩ እንደ በቆሎና ማሽላ ለመሳሰሉት የረጅም ጊዜ የመኸር ሰብሎች፤ ለተለያዩ ቋሚ ተክሎችና የጓሮ አትክልቶች የውኃ ፍላጎት መሟላት እንዲሁም የክረምት ወቅታቸውን ጠብቀው ተዘርተው በተለያየ የእድገት ደረጃ ላይ ለሚገኙ የመካከለኛ ጊዜ የመኸር ሰብሎች አዎንታዊ ሚና ነበረው። በተጨማሪም የተገኘው እርጥበት ዘግይተው ለሚዘሩ እንደ አጃ ለመሳሰሉ የአጭር ጊዜ ሰብሎች ከፍተኛ ጠቀሜታ ነበረው። የክርምት ዝናብ ተጠቃሚ በሆኑት የአርብቶ አደርና የክፊል አርብቶ አደር አካባቢዎች ላይ የተገኘው እርጥበት የመጠጥ የውሃ እና የግጦሽ ሳር አቅርቦትን ለማሻሻል አንጻር አዎንታዊ ሚና ነበረው። በአንፃሩ በተለያዩ የሀገሪቱ አካባቢዎች ላይ ከነበረው ከባድና ተከታታይነት ካለው ዝናብ ጋር ተያይዞ የጎርፍና የመሬት መንሸራተት የነበረ ሲሆን ይህም በሰው ህይወት በእንስሳት እና በሰብሎች ላይ ከፍተኛ የሆነ ጉዳት አድርጓል። በተለይም በጎፋ ዞን በገዜ ጎፋ ወረዳ፣ በመካከለኛው ሲዳማ ዞን በዎንሾ ወረዳ፣ በደቡብ ወሎ ዞን በደሴ ከተማ፣ በጅማ ዞን በጌራ ወረዳ፣ እንዲሁም በምዕራብ አርሲ በኮፌሌ ወረዳ ከፍተኛና ተከታታይነት ካለው ዝናብ ጋር ተያይዞ የመሬት መንሸራተት በመከሰቱ በሰው፣ በእንስሳት፣ በሰብሎች እና በንብረት ላይ ከፍተኛ ጉዳት አድርጓል።

ባላለፍነው የጁላይ ወር በአብዛኛው የመኸር ሰብል እብቃይ በሆኑት የሀገሪቱ አካባቢዎች ላይ ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ ነበራቸው። ይህም የተገኘው ዝናብ የአፈርን እርጥበት ከማሻሻልም አልፎ ከጁላይ ጀምሮ ለሚዘሩ የተለያዩ የመካከለኛ ጊዜ ሰብሎች ለመዝራትና አስቀድሞው ተዘርተው በተለያየ የእድገት ደረጃ ላይ ለሚገኙ የመኸር ሰብሎች የውሃ ፍላጎታቸውን ከሟሟላት አንፃር የጎላ ሚና ከመኖሩም በላይ ከኤፕሪል ጀምሮ ቀደም ብለው ለተዘሩ እንደ በቆሎና ማሽላ ለመሳሰሉ የረጅም ጊዜ የመኸር ሰብሎች እንዲሁም ለተለያዩ ቋሚ ተክሎች ለጓሮ አትክልቶችና ለፍራፍሬዎች

በተሟላ ሁኔታ እንዲያድጉ የጎላ አስተዋፅኦ ነበረው። ከዚህ በተጨማሪ በአርብቶ አደርና በከፊል የአርብቶ አደር አካባቢዎች የነበረው የእርጥበት ሁኔታ ለግጦሽ ሳርና ለመጠጥ ውሃ አቅርቦት አዎንታዊ አስተዋፅኦ ከማበርከቱም በላይ ሰው ሰራሽም ሆነ የተፈጥሮ ምንጮችን ከማጎልበት አንፃር በጎ ጎን ነበረው። በሌላ በኩል በአንዳንድ አካባቢዎች ላይ የነበረው ከፍተኛና ተከታታይነት የነበረው እርጥበት ለጎርፍ መከሰትና በሰብል ማሳዎች ላይ የውሃ መተኛት ያስከተለ ሲሆን ይህም ሁኔታ እየተከናወነ በሚገኘው የእርሻ ስራ እንቅስቃሴ ላይ አሉታዊ ጎን ነበረው። በአንዳንድ አካባቢዎች በተለይም በጎፋ፣ በደሴ፣ በሲቲ፣ በመአከላዊ ሲዳማ እና በጅማ እና በምዕራብ አርሲ ዞን ከነበረው የዝናብ መብዛትና ጋር ተያይዞ በአንዳንድ ቦታዎች ላይ የመሬት መንሸራተት የተከሰተ ሲሆን በሰብሎችና በእንስሳት ላይ ጉዳት አድርጓል።

SUMMARY

JULY 2024

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 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.

During the second dekad of July, agricultural meteorology data collected and analyzed from different parts of the country indicated that there was widespread moisture in areas that benefited from kiremt rains, supporting the growth of Meher crops. This moisture is available for sowing of various mid-term crops that are sown from July. Also it was great importance in terms of meeting their water needs for Meher crops that were sown earlier and are at different stages of development, as well as for long-cycle Meher crops such as Maize and sorghum that were sown from April. Moreover it was a significant contribution to the growth of various perennial plants and garden vegetables. Occasionally, the moisture that spread to the south, northeast and east of the country contributed to the agricultural activities in the area, as well as drinking water and grazing grass for pastoralists and semi-pastoralist areas. On the other hand, the heavy rains in some areas, especially in the northern, central, southwestern, and eastern parts of the country, as well as in the areas that have been receiving continuous rain for the past few days, may cause excessive moisture and infestation of weeds. In addition, in some places, especially in Tigray (Atsbi), Amhara region (Dangla), Afar, Harar, Ziway and Jimma, the flash floods caused some damage to crops, animals and permanent plants.

During the third dekad of July, agricultural meteorology data collected and analyzed from different parts of the country indicated widespread moisture in areas benefiting from kiremt rains, supporting the growth of meher crops. This moisture was crucial in meeting the water needs of mid-term meher crops at various stages of development and long-cycle meher crops such as maize and sorghum, which were sown in April. Additionally, it significantly contributed to the growth of various perennial plants and garden vegetables. The available moisture was also important for late-sown short-duration crops such as oats. In pastoral and semi-pastoral areas benefiting from kiremt rains, the moisture positively impacted the supply of drinking water and pasture grass. However, heavy and continuous rains in various parts of the country led to floods and landslides, causing significant damage to human lives, animals, and crops. Notably, the Gofa zone in Geze Gofa woreda, the Middle Sidama zone in Wonsho woreda, Dessie city in the South Wollo zone, Gera woreda in the Jimma zone, and Kofele woreda experienced severe damage to people, animals, crops, and property due to these landslides.

In general, during the month of July, the areas of the country where most of the meher crops were growing observed good moisture conditions. This situation improved the soil moisture and played an important role in meeting the water needs of various medium-term crops that are sown in July and meher crops that are already at different stages of growth. It significantly contributed to the growth of vegetables and fruits. Additionally, the moisture conditions in pastoral and semi-pastoral areas positively affected the supply of grazing grass and drinking water, enhancing both man-made and natural sources. However, the heavy and continuous rains in some areas led to flooding and inundation of crop fields, negatively impacting ongoing agricultural activities. Landslides occurred in Gofa, Dessie, Central Sidama, Jimma, and Kofele woredas, causing significant damage to people, animals, crops, and property.

1. WEATHER ASSESSMENT

1.1. Rainfall amount (21 – 31) July 2024

During the 3rd dekad of July 2024, some parts of North Tigray, Souh Gonder, North and South Wollo, Bahirdar, Agew Awi, Metekel, East Gojam, Ormia Special Zone, most Shewa Zones, Kemashe, some parts of illubabore, Jimma, Kefa, Bench Maji, Guraghe and South Omo, Basketo, Derashe and Gedeo Zones were dominantly received 100-200 mm of rainfall. Most parts of Tigray, North Gonder, Waghimra, Afar Zones, 2, 4, 5, and 3, Shinle, East and West Hararghe, Harar, parts of Arsi, Silti, Wolayta, Sidama, Gamogofa, Guji, Gedeo, Bench Maji, Godere, Gambela Zone 1&2, Illubabor, West Wollega, Sheka, Tongo, Assossa, and Sheka Zones were dominantly received 50-100 mm of rainfall. Some parts of North Gonder, Bale, Alaba, Hadia, Guji, Amaro, Borena, Konso, Gode, Degahabure, Fik, Jigjiga, and Afar 1 Zones were received 25-50 mm of rainfall. However, the rest parts of the country which does not get Meher rainfall (South and Southeast) parts of the country were received 0-25 mm of rainfall compared the long Normal.

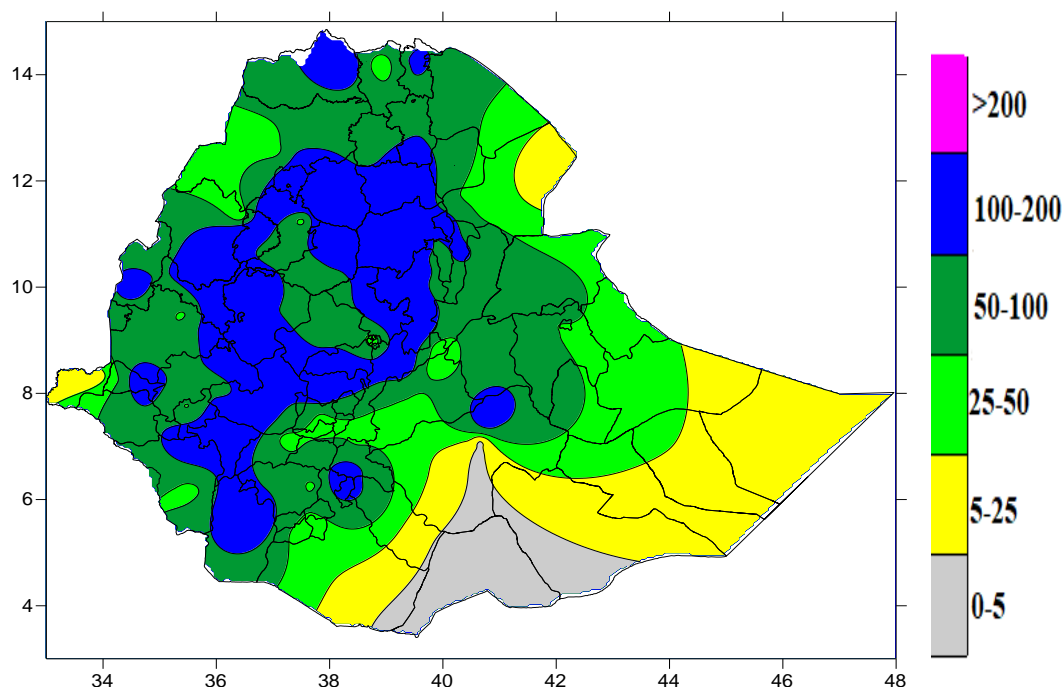


Fig 1. Rainfall distribution in mm (21 – 31) July 2024

1.2. Rainfall Anomaly (21 – 31 July 2024)

During the third dekad of July 2024, most parts of the country except some parts of Northeastern and pocket areas of Central were exhibited Normal to Above Normal Rainfall condition. On the other hand, some parts of Northeastern some pocket areas of central parts of the country were experienced below Normal to Much below Normal rainfall condition.

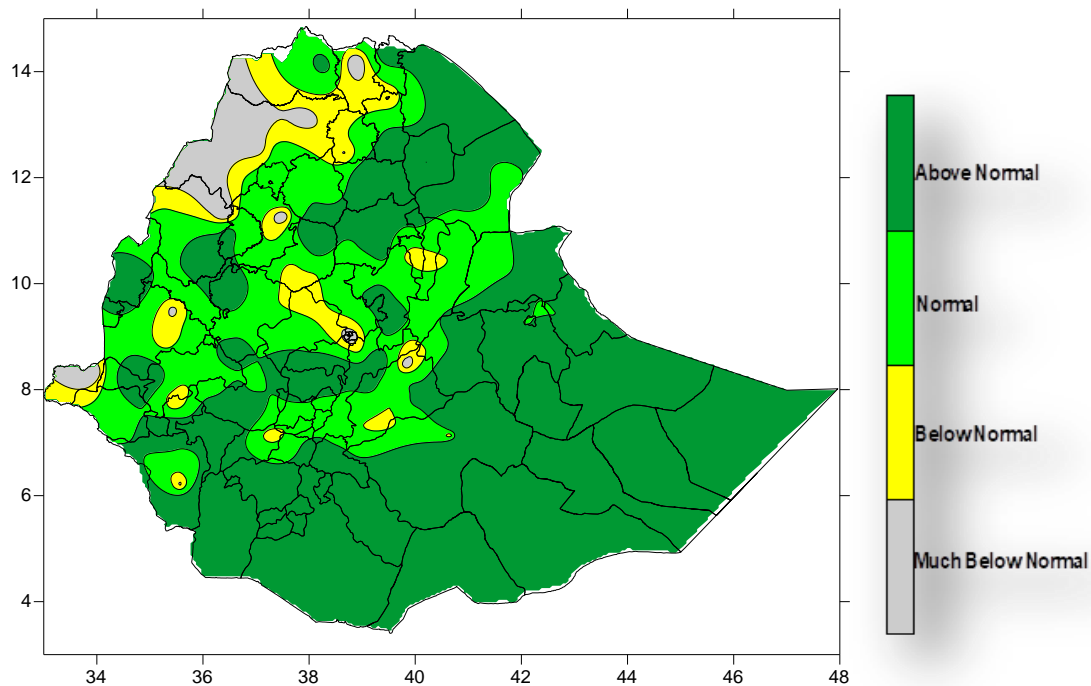


Fig. 2 Percent of normal rainfall distribution (21 – 31) July 2024

Explanatory notes for the Legend

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

1.3. Moisture Condition (21 – 31 July 2024)

As indicated on the moisture status map below during third dekad of June 2024 most parts Kiremt rain benefiting areas of the country exhibited Moist to Hyper Moist moisture condition. The rest parts of the countries exhibited moderately Dry too Very Dry.

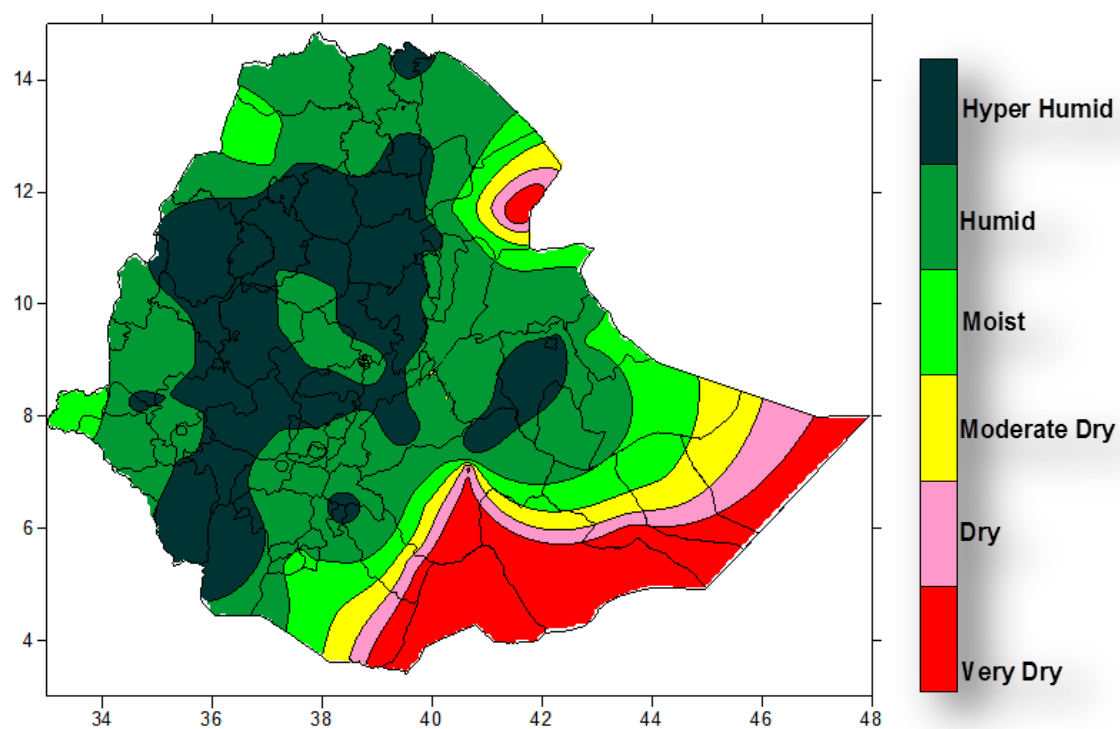


Fig. 3. Moisture status (21 – 31) July 2024

1.4. Rainfall amount on the month of July 2024

During the Month of July 2024, Most Kiremt rain benefiting areas were dominantly received 100-200 mm of rainfall. Some parts of Afar 2, 4, 3 Zones, Shinle, Jigjiga, Degahabure, Fik, Bale, Guji, Amaro, Derashe, West Wellega and Tip of Metekel and Gonder Zones were dominantly received 50-100 mm of rainfall. Some parts of Gode, Bale, Borena and Afar Zone 1 were received 25-50 mm of rainfall. However, the rest parts of the country which does not get Meher rainfall (South and Southeast) parts of the country were received 0-25 mm of rainfall compared the long Normal.

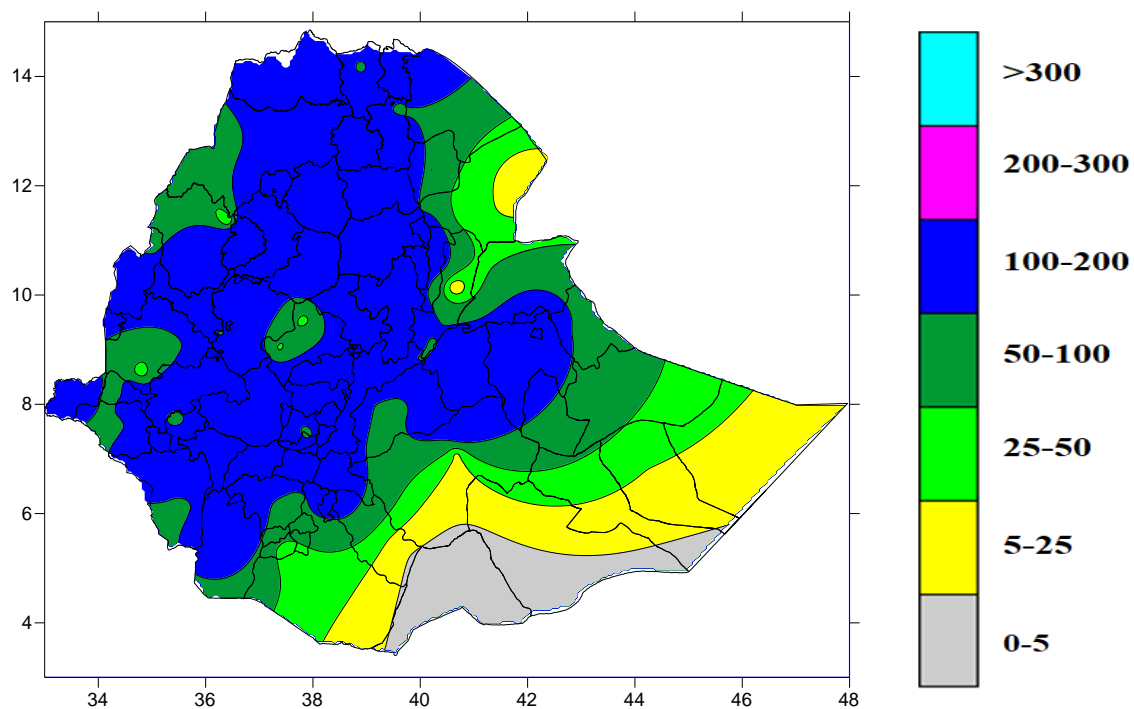


Fig 4. Rainfall amount in mm for the month of July 2024

1.5. Rainfall Anomaly on the month of July 2024

During the month of July 2024, most parts of Southern, Southeastern, Central Eastern and Northeastern and pocket areas of Central were exhibited Normal to Above Normal Rainfall condition. On the other hand, some parts of Southwestern, Western and Northwestern parts of the country were experienced below Normal to Much below Normal rainfall condition.

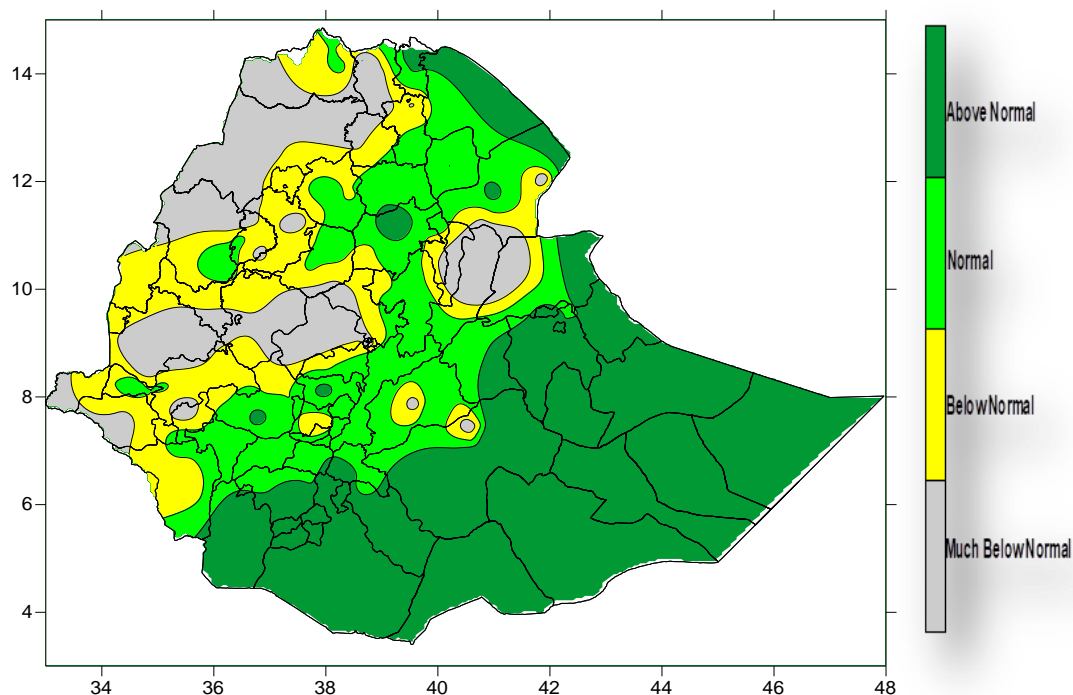


Fig. 5 Percent of Normal Rainfall for the month of July 2024

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 July 2024

In accordance with the moisture status map below during July 2024 most parts Kiremt rain benefiting areas of the country exhibited Moist to Hyper Moist moisture condition. The rest parts of the countries exhibited moderately Dry too Very Dry.

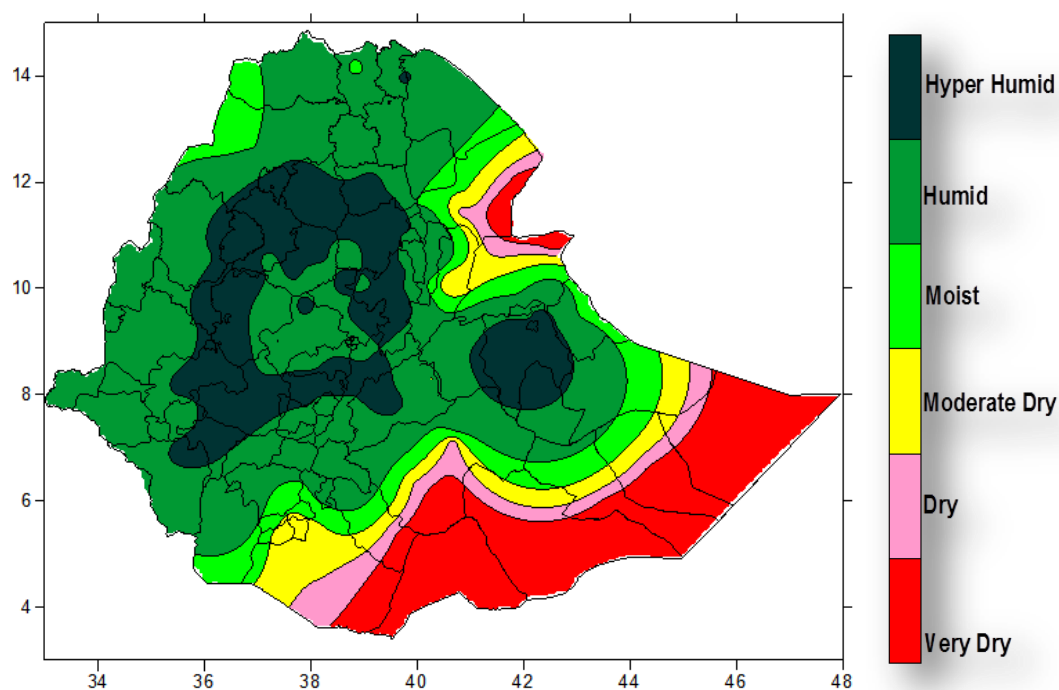


Fig. 6. Moisture status for the month of July 2024

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE ON THE MONTH OF JULY 2024

During the the month under review, due to dekad to dekad relative strengthening of rain bearing weather systems, good moisture conditions has been experienced over Meher producing and rain benefiting areas of the country, according to this, the increment the vegetation condition across western half, central, eastern and north-eastern parts of the country (Fig.7. NDVI and Fig.8. Rangeland WRSI in %). This condition might have positive impact to perform planting for late sown Meher crops, the water requirement of long and medium cycle crops as well as water needs of perennial plants and availability of pastors and drinking water over pastoral and agro-pastoral areas.

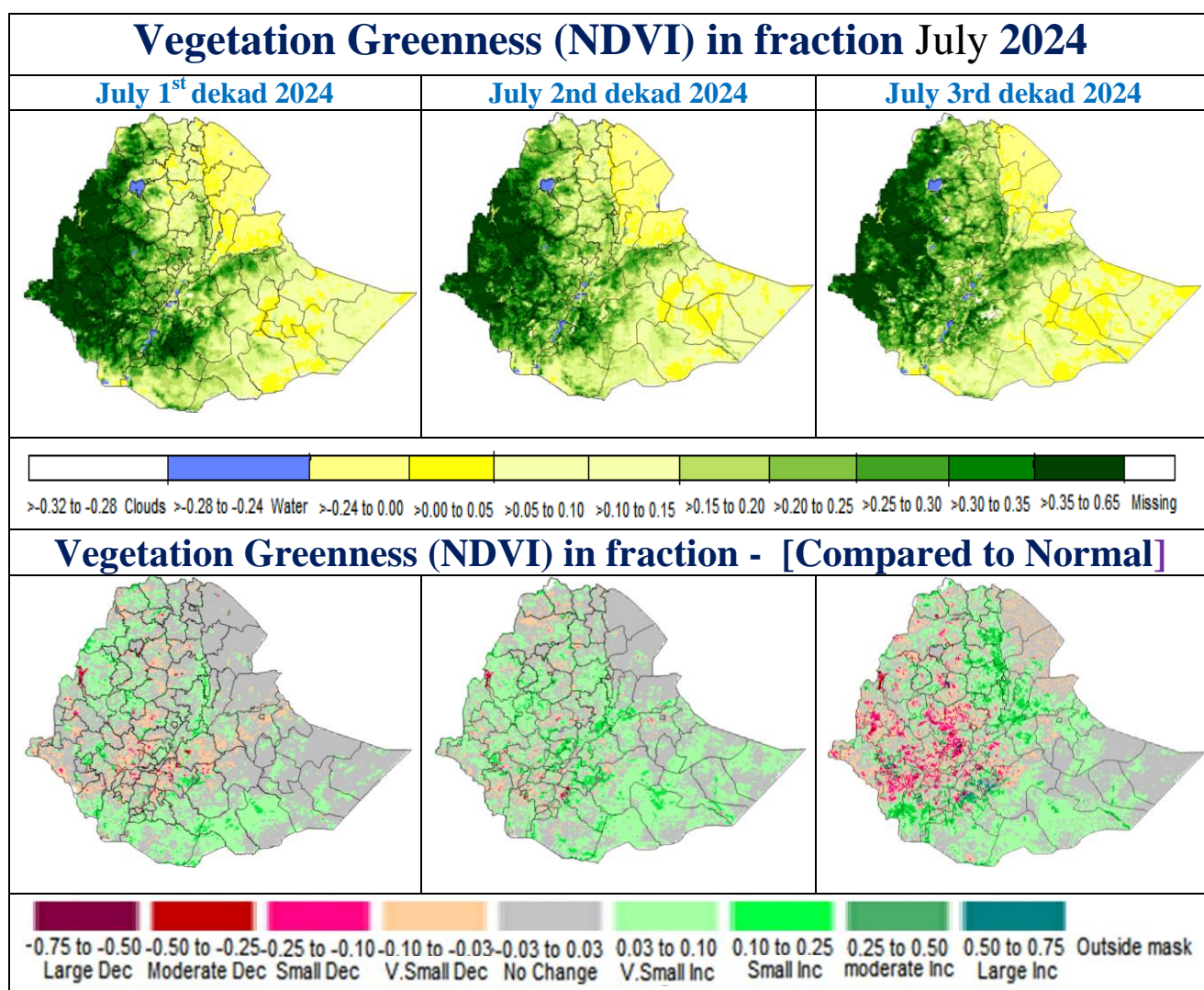


Fig. 7. Vegetation Greenness (NDVI) in fraction and Compared to Normal July 2024.

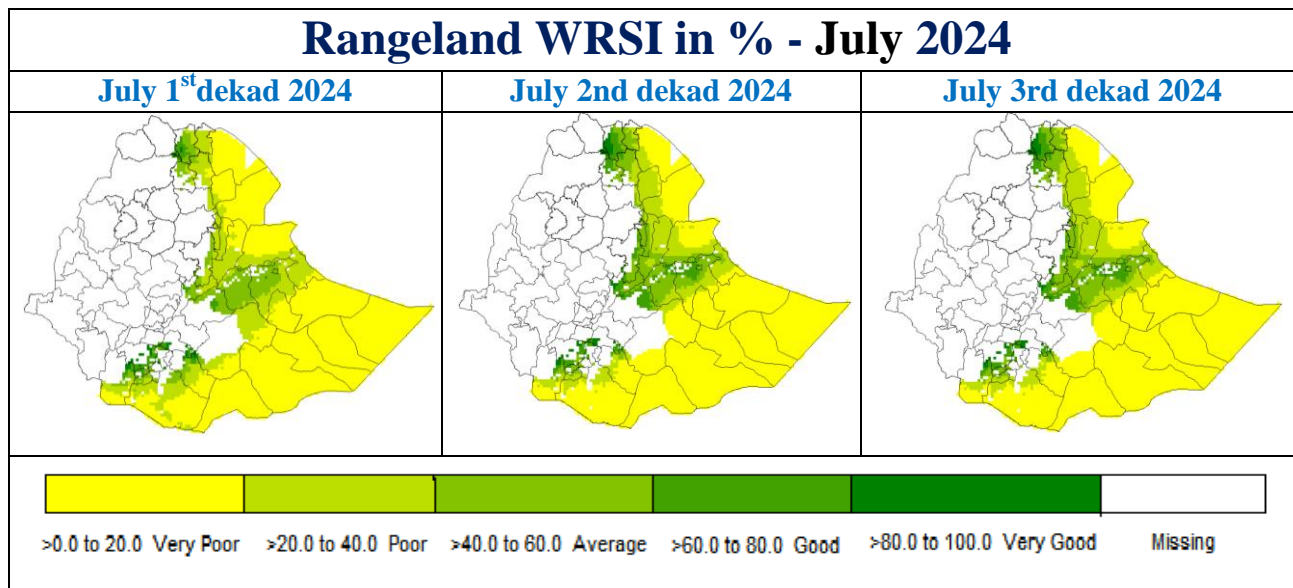


Fig.8. Rangeland WRSI in % and Compared to Normal - **July 2024**

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH OF AUGUST 2024

Normally, in the month of August, the moisture conditions range from moist to hyper-humid in most of the meher growing areas compared to other kiremt months. In addition, the pastoral areas of the Northeast have better moisture conditions during this month. On the other hand, it is a time when occasional heavy rainfall and floods can have a negative impact on farming activities.

In the coming month of August, meteorological forecasts indicate that rainy conditions may intensify, with moderate to heavy rainfall expected in the northeast, north, central, southwest, and western parts of the country. This is due to the intensifying rain-making meteorological factors. The moisture in areas benefiting from the Meher rains will be of great importance to agricultural activities and the development of crops at different stages. Additionally the enhanced moisture will help the water need have permanent plants, vegetables, and fruits, as well as improve the supply of pasture and drinking water for pastoral and semi-pastoral areas. However, frequent wet conditions may cause water to accumulate on crops in hilly areas, leading to landslides and floods in high and sloping areas, and promoting the spread of crop diseases and weeds in humid regions. Therefore, it is necessary for farmers and relevant authorities to prepare flood diversions construct canals for draining water from fields, and use herbicides and pesticides appropriately to protect crops from floods and prevent waterlogging.

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

[illegible]EMI Monthly Agro meteorology bulletin