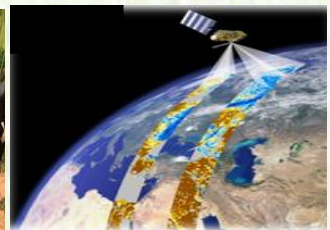


# NATIONAL METEOROLOGY AGENCY

## Agrometeorological Bulletin

### MONTHLY AGROMETEOROLOGICAL BULLETIN

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National Meteorological Agency P.O.BOX 1090, ADDIS ABABA, ETHIOPIA

Website: [http:// www.ethiomet.gov.et](http://www.ethiomet.gov.et), E-mail [nmsa@ethionet.et](mailto:nmsa@ethionet.et), Fax 251-1-517066, Tel. 251-1-512299

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## FORE WARD

This Agro met Bulletin is prepared and disseminated by the National Meteorological Agency (NMA). 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  
NMA  
P.O.Box 1090  
Tel: 011661-57-79  
FAX 00251-11-6625292  
E-mail [nmsa@ethionet.et](mailto:nmsa@ethionet.et)  
Addis Ababa

**አህፅሮት**  
**እ.ኤ.አ ጁላይ 2020**

ባሳለፍነው የጁላይ የመጀመሪያዎቹ አስር ቀናት ለክረምት ዝናብ መኖር አመቺ ሁኔታን የሚፈጥሩ የሚቲዎሮሎጂ ገጽታዎች የተሻለ ጥንካሬ የነበራቸው በመሆኑ በአብዛኛው የክረምት ዝናብ ተጠቃሚና የመኸር ሰብል አብቃይ አካባቢዎች ላይ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ ነበራቸው። ይህም የተገኘው እርጥበት ለመኸር የእርሻ ስራ እንቅስቃሴ አዎንታዊ ሚና የነበረው ሲሆን በተለይም የመካከለኛ ጊዜ የመኸር ሰብሎችን ለመዝራትና የማሳ ዝግጅት ለማከናወን፣ እንዲሁም በምዕራብና በደቡብ ምዕራብ የሀገሪቱ ክፍሎች ላይ ቀደም ብለው ለተዘሩ ለረጅም ጊዜ ሰብሎች የውሃ ፍላጎት መሟላትና ለአርብቶ አደሮችና ከፊል አርብቶ አደር አካባቢዎች ለመጠጥ ውሃና ለግጦሽ ሳር ልምላሜ ጥሩ አስተዋጽኦ ነበረው። በተጨማሪም በአንዳንድ አካባቢዎች ላይ የነበረው ከባድ ዝናብ እንዲሁም ባሳለፍናቸው 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 ያሳደረው ጉልህ አሉታዊ ተፅዕኖ አልነበረም። በሌላ በኩል በሰሜን ምስራቅና በምስራቅ የሀገሪቱ አካባቢዎች የተገኘው እርጥበት በመጠን ያነሰ ቢሆንም በተለይም ባሳለፍናቸው ቀናት ካገኙት እርጥበት ጋር ተዳምሮ ለግብርናው እንቅስቃሴና የመጠጥ ውሀ አቅርቦትንም ሆነ የግጦሽ ሳር ልምላሜ የጎላ አስተዋጽኦ ነበረው ።

ባሳለፍነው የጁላይ ሁለተኛው አሥር ቀናት ለክረምት ዝናብ መኖር አመቺ ሁኔታን የሚፈጥሩ የሚቲዎሮሎጂ ገጽታዎች የተሻለ ጥንካሬ የነበራቸው በመሆኑ በአብዛኛው የክረምት ዝናብ ተጠቃሚና የመኸር ሰብል አብቃይ በሆኑት አካባቢዎች ላይ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ እንደነበራቸው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። ይህም የተገኘው እርጥበት ለመኸር የእርሻ ስራ እንቅስቃሴ አዎንታዊ ሚና የነበረው ሲሆን፣ በተለይም ከሰኔ በኋላ ለሚዘሩ የመካከለኛ ጊዜ የመኸር ሰብሎችን ለመዝራትና የማሳ ዝግጅት ለማከናወን እንዲሁም በምዕራብና በደቡብ ምዕራብ የሀገሪቱ ክፍሎች ላይ ቀደም ብለው ለተዘሩ ለረጅም ጊዜ ሰብሎች፣ ለቋሚ ተክሎችና ለተለያዩ የጓሮ አትክልቶች የውሃ ፍላጎት መሟላት 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 በመካከለኛው እና በምዕራብ አጋማሽ የሀገሪቱ ክፍሎች ላይ የነበረው ከባድ ዝናብ እንዲሁም ባሳለፍናቸው 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 ያሳደረው ጉልህ አሉታዊ ተፅዕኖ አልነበረም ።

ባሳለፍነው የጁላይ የመጨረሻዎቹ አስራ አንድ ቀናት ለክረምት ዝናብ መኖር አመቺ ሁኔታን የሚፈጥሩ የሚቲዎሮሎጂ ገጽታዎች የተሻለ ጥንካሬ የነበራቸው በመሆኑ በአብዛኛው የክረምት ዝናብ ተጠቃሚና የመኸር ሰብል አብቃይ በሆኑት አካባቢዎች ላይ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ እንደነበራቸው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። ይህም ሁኔታ እየተካሄደ ለነበረው የመኸር እርሻ እንቅስቃሴ፣ የማሳ ዝግጅትና የዘር መዝራት ስራዎችን በጊዜ ለማከናወን አመቺ ሁኔታ የነበረው ሲሆን፣ አስቀድመው ተዘርተው በተለያዩ የእድገት ደረጃ ላይ ለሚገኙ የረጅም ጊዜ ሰብሎች የውኃ ፍላጎታቸውን ከሚሟላት አንፃር የጎላ ሚና ነበረው። በተጨማሪም ምንም እንኳን የዝናቡ መጠንና ሥርጭት በሀገሪቱ ምዕራባዊ አጋማሽ ላይ የተጠናከረ ቢሆንም፣ በሰሜን ምስራቅ ቆላማ ቦታዎችና በምስራቅ ኢትዮጵያ እንዲሁም በዚህ ወቅት ዝናብ በማይጠበቅባቸው የሀገሪቱ ደቡባዊው ክፍሎች ላይ የነበረው መጠነኛ እርጥበት በአርብቶ አደርና በከፊል የአርብቶ አደር አካባቢዎች ለግጦሽ ሳርና ለመጠጥ ውኃ አቅርቦት አወንታዊ አስተዋፅኦ ነበረው። በሌላ በኩል በአንዳንድ አካባቢዎች ላይ የነበረው ከባድ ዝናብ እንዲሁም ባሳለፍናቸው ቀናት በተከታታይ ዝናብ በማግኘት ላይ በነበሩ ቦታዎች ላይ የአፈር ውስጥ እርጥበት መብዛት እና በአንዳንድ ቦታዎች ላይ ለወንዝ መሙላትና ለጎርፍ ተጋላጭ በሆኑ አካባቢዎች ላይ ለጎርፍ መከሰት ምክንያት በመሆኑ በግብርናው ሥራ ላይ በመጠኑም ቢሆን አሉታዊ ተፅዕኖ ነበረው ።

ባጠቃላይ ባሳለፍነው የጁላይ ወር ለክረምት ዝናብ መኖር አመቺ ሁኔታ የሚፈጥሩ የአየር ሁኔታ ክስተቶች የነበሩ በመሆኑ በአብዛኛው የክረምት ዝናብ ተጠቃሚ አካባቢዎች አካባቢዎች በተለይም ከሁለተኛ አስር ቀናት ጀምሮ ከቦታ ቦታ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያደረሰ የእርጥበት ሁኔታ ነበራቸው። ይህም የተገኘው ዝናብ

የአፈርን እርጥበት ከማሻሻልም አልፎ ከጁላይ ጀምሮ ለሚዘሩ የተለያዩ የመካከለኛ ጊዜ ሰብሎች የማሳ ዝግጅት ለማከናወንና በታቀደው መሰረት የግብርና እንቅስቃሴን ለማከናወን አመቺ ሁኔታ የነበረው ሲሆን፤ አስቀድሞው ተዘርተው በተለያዩ የእድገት ደረጃ ላይ ለሚገኙ የበልግ ሰብሎች የውኃ ፍላጎታቸውን ከሚሟላት አንፃር የጎላ ሚና ከመኖሩም በላይ ከኤፕሪል ጀምሮ ቀደም ብለው ለተዘሩ እንደ በቆሎና ማሽላ ለመሳሰሉ የረጅም ጊዜ የመኸር ሰብሎች እንዲሁም ለተለያዩ ቅሚ ተክሎች በተሟላ ሁኔታ እንዲያድጉ የጎላ አስተዋፅዖ ነበረው ። ከዚህ በተጨማሪ በእርብቶ አደርና በከፊል የእርብቶ አደር አካባቢዎች የነበረው የእርጥበት ሁኔታ ለግጦሽ ሳርና ለመጠጥ ውኃ አቅርቦት አዎንታዊ አስተዋፅዖ ከማበርከቱም በላይ ሰው ሰራሽም ሆነ የተፈትሮ ምንጮችን ከማጎልበት አንፃር አዎንታዊ ሚና ነበረው። በአንፃሩ በአንዳንድ አካባቢዎች ላይ የነበረው ከባድ ዝናብ እንዲሁም ባሳለፍናቸው 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 ሲሆን በአንዳንድ አካባቢዎች ላይ የነበረው ከንፋስ ጋር የተቀላቀለ ከባድ ዝናብ ለመጥቀስም ያህል በባህርዳር፣ በቴፒ በአብዛኛው ምዕራብና ሰሜን ምዕራብ የተከሰተው ጎርፍ በተለያዩ ሰብሎች እና በንብረት ላይ ጉዳት እንዳስከተለ የደረሰን መረጃ ያመለክታል። በተጨማሪም በመደበኛ ባህሪያቸው በእርጥበት መብዛት በሚታወቁ ሰፍራዎች ላይ ተከታታይነት የነበረው እርጥበታማ ሁኔታ በሰብል ማሳዎች ላይ የውሃ መተኛት ያስከተለ ሲሆን ይህም ሁኔታ እየተከናወነ በሚገኘው የእርሻ ስራ እንቅስቃሴ ላይ አሉታዊ ጎን ነበረው።

## **SUMMARY**

### **JULY 2020**

During the first dekad of July 2020, a meteorological weather phenomenon was strengthening in amount and coverage over most part of Kiremt rain benefiting areas. Particularly, over Benshangul-Gumuze, Amhara, Oromia, Tigray, Gambela and SNNPR experienced better rainfall and in addition the weather system has also extended toward over north-eastern, eastern parts of the country. This situation could have a significant and positive contribution with respect to satisfying the water need of crops which were found at different phenological stages, perennial plant, land preparation and sowing of cereals (Teff, wheat and barley), pulse (beans, peas and haricot beans) and oil crops and improve pasture and drinking water availability in over eastern and north-eastern low land parts of postural and agro pastoral areas of the country as well. Besides, the observed heavy rainfall particularly central parts of the country might have positive impact on the ongoing Meher agricultural activities. In contrast, the observed heavy falls over some places of the aforementioned areas may cause flood and water logging on crops field in low lying areas as well as in areas where the soil type is clay.

In normal situation, during the second dekad of July, kiremt rain almost covered much of Meher rain benefiting areas of the country. Likewise, during the second dekad of July 2020, a meteorological weather phenomenon was strengthening in amount and coverage over most part of Keremt rain benefiting areas. Particularly, over Benshangul-Gumuze, Amhara, Oromya, Tigray and SNNPR experienced moderate to heavy rainfall and in addition the weather system has also extended toward over north-eastern, eastern and southern southern parts of the country. This situation could have a significant and positive contribution with respect to satisfying the water need of crops which were found at different phenological stages, perennial plant, land preparation and sowing of cereals (Teff, wheat and barley), pulse (beans, peas and haricot beans) and oil crops and improve pasture and drinking water availability in over eastern and north-eastern low land parts of postural and agro pastoral areas of the country as well. The received rainfall over the pastoral and agro pastoral community particularly in eastern and north-eastern regions might play crucial role toward improving the availability of pasture and drinking water and regenerating natural and artificial ponds. On the other hand, areas which have been receiving heavy rainfall in continuous manner particularly central and western half of the country might have positive

impact on the ongoing Meher agricultural activities normally water deficit areas and water harvesting where pods were prepared and that can be used in time of deficit. In contrast, the observed heavy falls over some places of the aforementioned areas might experience excess soil moisture which might lead to water logging and runoff. Further, the reported locally heavy falls might enhance the occurrence of flood and soil erosion.

During the last dekad of July 2020, due to the relative strength of rain bearing meteorological systems over most parts of Kiremt rain benefiting and Meher crop growing areas were continuously receiving enhanced good moisture. According to the weather report from a wide range of agro meteorological stations, the rainfall was more intensified in space and time over most parts of Kiremt rain benefiting areas. In line with this, over central, eastern and souther Tigray, all zons of AmharaGambela, Benshangul-Gumuze, Shewa, all zons of Arsi Wellega, eastern and western Harerge, Afar zone 2, 4 and 5, except Segel people and some parts of South Omo all zone of SNNPR experienced 50 to 255mm of rainfall with a temporal time scale of 6 to 11 days. The received moisture was good enough to satisfy daily crop water requirement for various early planted Meher season crops as well as perennial plants. Moreover, this moisture might facilitate land preparation, sowing of Meher season crops, improved water resources and soil moisture reservoirs. However the Kiremt rain more intensified over western half of the country also over eastern and north eastern parts as well as southern and south-eastern low land areas which are climatologically dry in this time experienced 5 to 50mm of rainfall less than 5 days which might play crucial role toward improving the availability of pasture and drinking water and regenerating natural and artificial ponds over the pastoral and agro pastoral community. On the other hand, some areas also experienced heavy fall ranging from 55.0 to 94.1 mm of rain within 24 hours in continuous manner which might experience excess soil moisture lead to water logging and runoff. Further, the reported locally heavy falls might enhance the occurrence of flood and soil erosion.

Generally on the month of July 2020, due to the relative strength of rain bearing meteorological systems over most of Meher season crop growing and much of Kiremt rain benefiting areas have experienced good moisture in amount and distribution. This condition might be favourable to satisfy daily crop water requirement for various early planted Meher season crops as well as perennial plants. Moreover, this moisture might facilitate land preparation and sowing of cereals (Teff, wheat and barley), pulse (beans, peas and haricot beans) and oil seeds, further growth of early planted Meher crops and improved water



resources, soil moisture reservoirs and the advancement of moisture toward the north-eastern and eastern part of the country could give an opportunity to collect and store rain water for areas often deal with moisture stress problem. The condition also might have positive implication to enhance the soil moisture availability and hereby it could satisfy water need of crops which are found at different growing stage. On the other hand, some areas experienced heavy fall ranging from 58.9 to 119.0 mm of rain within 24 hours also areas which have been receiving rainfall in continuous manner was created excess soil moisture which might lead to water logging and runoff further, according to the field report, some places like Bahir dar, Tepi, much of western and north-western parts have experienced heavy fall with hail and consequently certain level of damage were observed on crops, properties and human life.

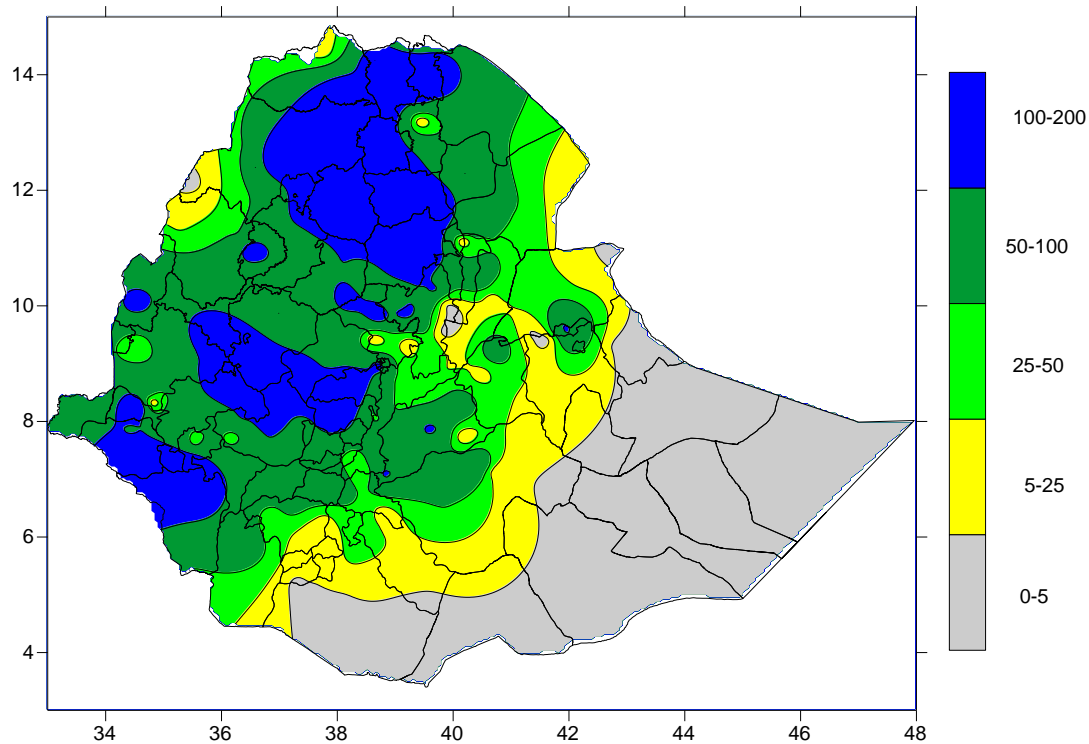


Fig 1. Rainfall distribution in mm (21 – 31) July 2020

## 1. WEATHER ASSESSMENT

### 1.1. Rainfall amount (21 – 31) July 2020

During the third dekad of July 2020 east, central, south and west Tigray, W.Hamra, north and south Gonder, north and south Wollo, Oromia especial zone, Bahir Dar, west and east Gojam, Agew-Awi, Assosa, Kamashi, Illubabur, Jimma, south west and west Shewa, Addis Ababa zone, Gurage, Gambela zone 1 & 2, Godere, Keffa and Bench Maji received 100-200mm. south Tigray, Bahir Dar, west and east Gojam, Oromia especial zone, Afar zone 1, 2, 4 & 5 Metekel, Agew Awi, Assosa, Tongo, east and west Wellega, Illubabur, west, north and east Shewa, Selti, Gambela zone 3, Sheka, Keffa, Jimma, YEM, Alaba, Dawuro, KT, Hadiya, Sidama, Arsi, Bale, Basketo, South Omo and Harer received rain fall in the range of 50-100mm. west Tigray, Metekel, west Wellega, Hadiya, Sidama, Afar zone 1 & 5, Shinille, east Shewa, west and east Harergie, Gamo gofa, Gedeo, Bale, Derashe and South Omo received 25-50mm rain fall. Metekel, Afar zone 3, west and east Harergie, Derashe, Burji, Konso, Guji, Liben, Afder, Fik and Jijiga received 5-25mm of rainfall. The rest parts of the country exhibited 0-5 amount of rainfall.

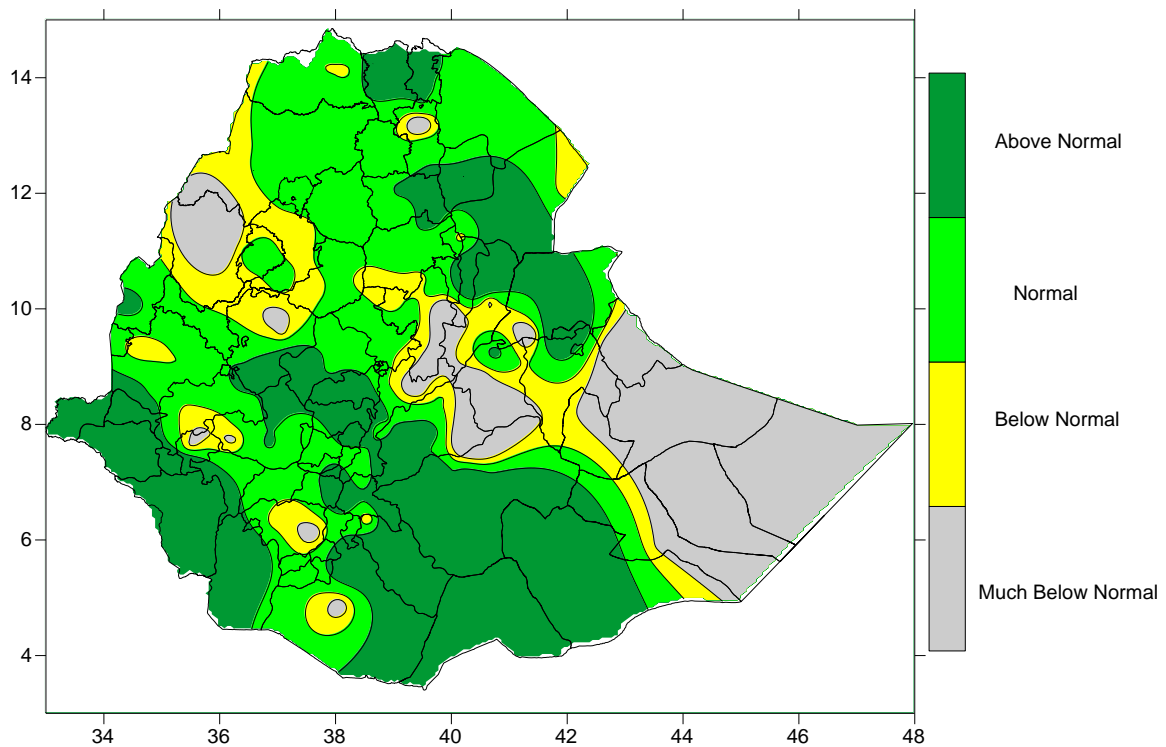


Fig. 2 Percent of normal rainfall distribution (21 – 31 July 2020)

#### Explanatory notes for the Legend

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

#### 1.2. Rainfall Anomaly (21 – 31 July 2020)

Looking into the percent of normal rainfall condition during the last dekad of July over Metekel, Bahir Dar, west and east Gojam, east and west Wellega, Sheka, Gamo gofa, Borena, east Shewa, east and west Harergie, Fik, Jijiga, Degahabour, Gode and Korahe have exhibited below to much below normal rainfall. The rest parts of country exhibited normal to above normal rainfall. . The rest parts of the countries exhibited below normal to much below normal rainfall.

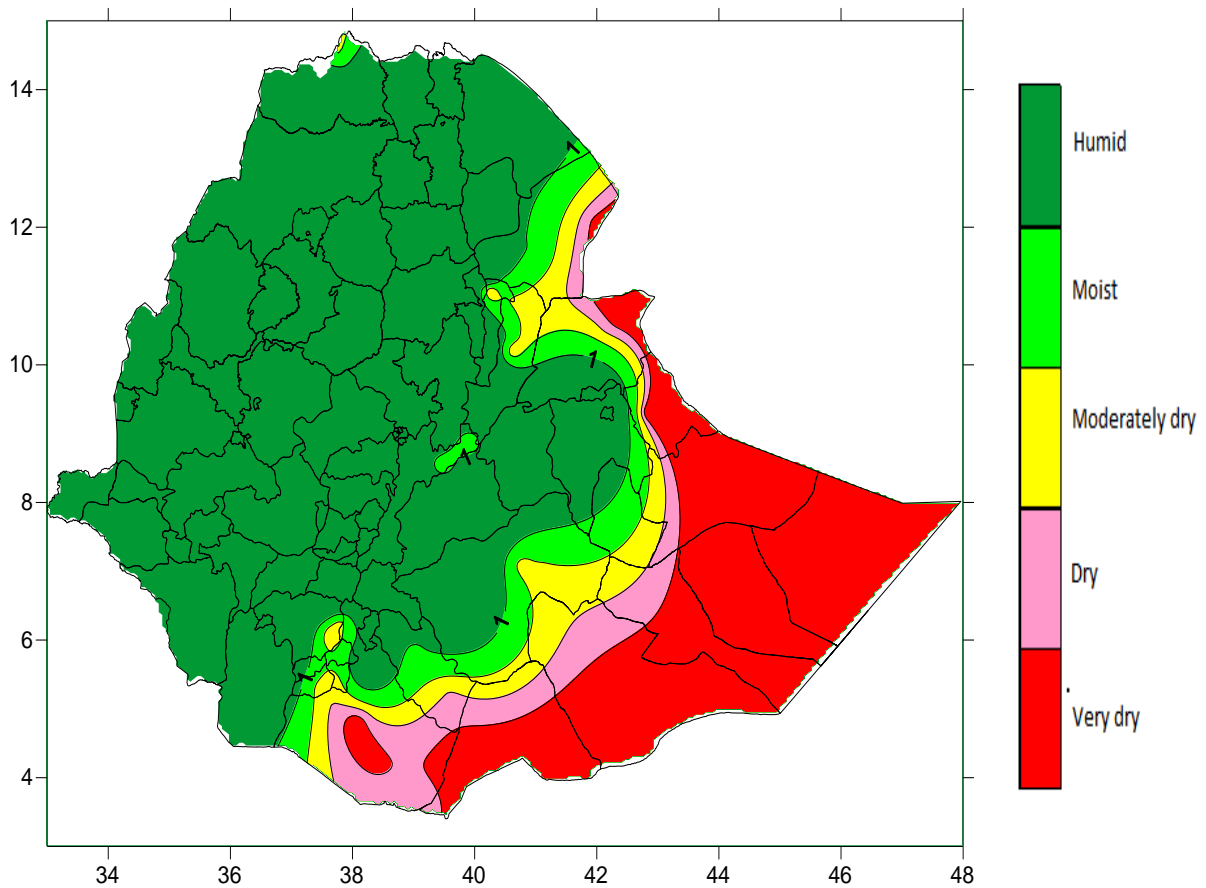


Fig. 3 Moisture Status (21-31 July 2020)

### 1.3. Moisture status (21 – 31 July 2020)

Central, west, east and south Tigray, north and south Gonder, southern Tigray, north and south Wollo, Oromia especial zone, Bahir Dar, central Tigray, Agew-Awi, west and east Gojam, Assosa, Tongo, Kamashi, west and east Wellega, north, west, south west and north south Shewa, Addis Ababa zone, Afar zone 3, 4 & 5, Tongo, Illubabur, west and east Harergie, Harer, Gurage, Arsi, Harer, Jijiga, Godere, Sheka, Keffa, Jimma, YEM, KT, Alaba, Hadiya, Dawro, Welayita, Sidama, Bench Maji, Basketo, Gamo gofa, Gedeo, Guji , South Omo, Amaro, Guji, Afder, Gode, Deghabur and Korahе exhibited Humid to Moist moisture condition. The rest parts of the countries exhibited moderately dry to very dry.

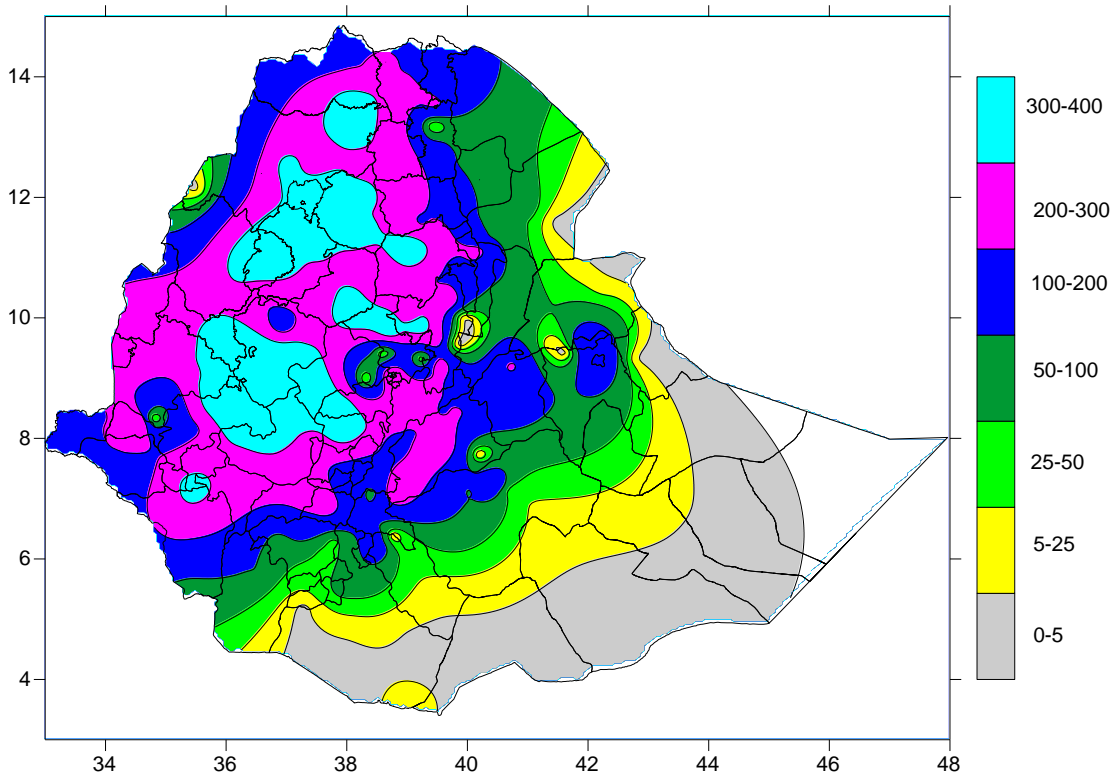


Fig. 4 Rainfall amount in mm for the month of July 2020

#### 1.4. Rainfall amount on the month of July 2020

During July 2020 tip area of west Tigray, W.Hamra, north and south Gonder, Bahir Dar, West Gojam, Agew-Awi, Kamashi, west and east Wellega, Illubabur, Jimma, west and south west Shewa, Gurage, Jimma and Godere 300-400mm of rainfall. central and west Tigray, W.Hamra, Bahir Dar, west and east Gojam, Agew Awi, south Wollo, Kamashi, east and west Wellega, Illubabur, Jimma, Gurage, west and south west Shewa, Godere, Sheka, Bench Maji and Keffa received 200-300mm of rainfall. west Tigray, Metekel, north Wollo, Oromia especial zone, Gambela zone 1, 2 & 3, Basketo, Sidama, Gedeo, Hadiya, Bale, Addis Ababa zone, west and east Harergie and Harer received 100-200mm of rainfall. Afar zone 1, 2, 3, 4 & 5, east Harerege, Fik, South Omo, Dirashe, Gamo gofa, Gedeo and Bale received rain fall in the range of 50-100mm. Afar zone 1, &3, Jijiga, Guji, Konso and Burji, Guji, Liben, Fik and Degehabur received 25-50mm rain fall. Jijiga, Konso, Amaro, Borena, Guji, Liben, Afder, Gode and Degehabur received 5-25mm of rainfall. The rest parts of the country exhibited 0-5 mm of rainfall.



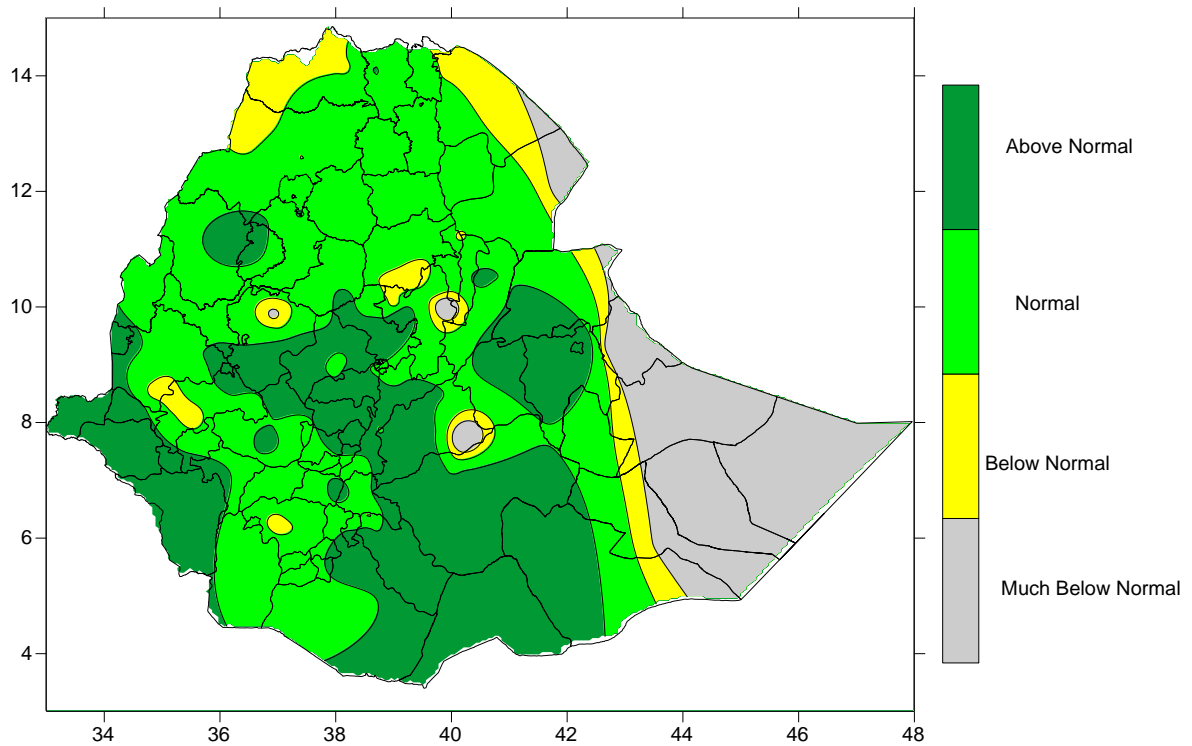


Fig. 5 Percent of Normal Rainfall for the month of July 2020

#### Explanatory notes for the Legend

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

#### 1.5. Rainfall Anomaly on the month of July 2020

During the month of July, west and east Tigray, Afar zone 2, 3 & 5 Illubabur, Gamo gofa, Jijiga, Fik, Degahabour, Gode, Korahe and Warder have exhibited below to much below normal rainfall. The rest parts of country exhibited normal to above normal rainfall. The rest parts of the countries exhibited below normal too much below normal rainfall.

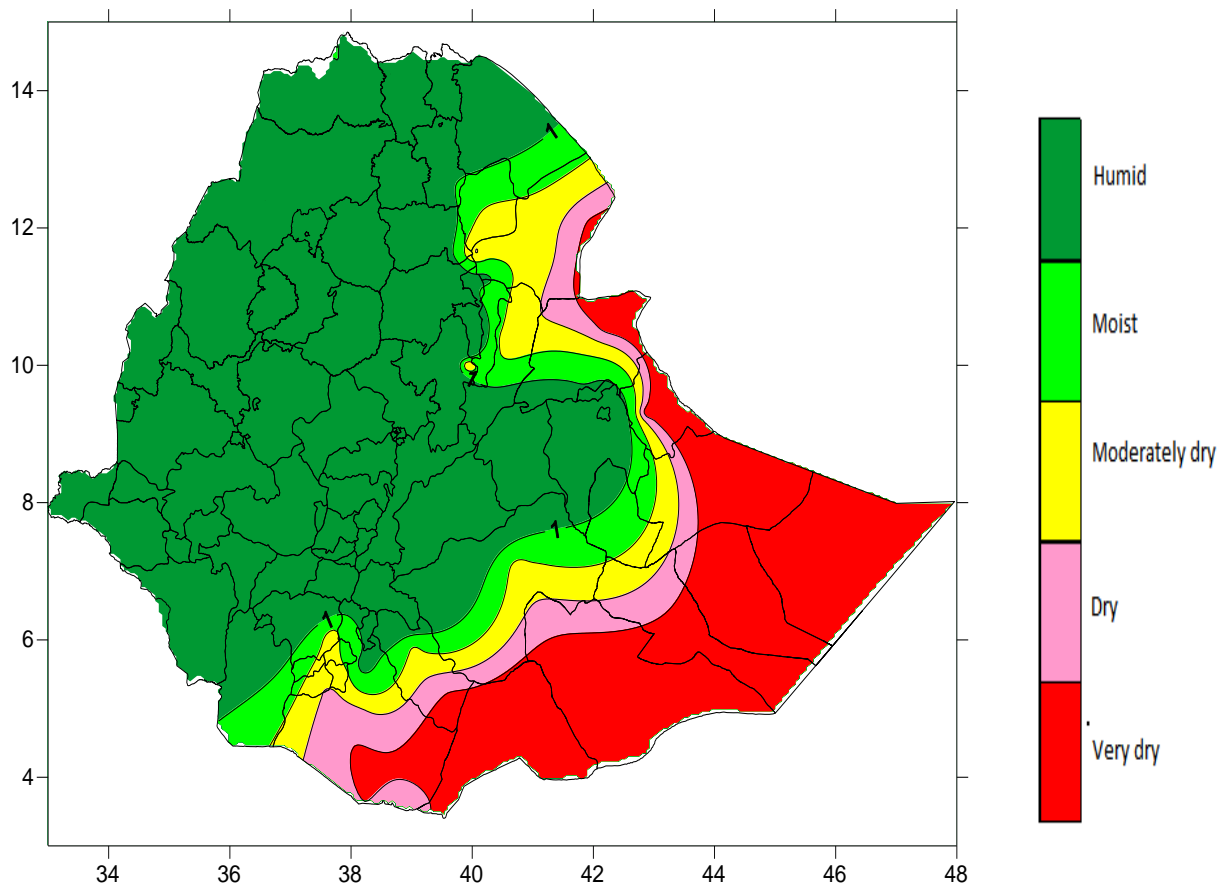


Fig. 6 moisture status for the month of July 2020

### 1.6. Moisture status on the month of July 2020

In accordance with the moisture status map above, Central, west, east and south Tigray, north and south Gonder, north and south Wollo, Oromia especial zone, Bahir Dar, Metekel, Agew-Awi, west and east Gojam, Assosa, Tongo, Kamashi, west and east Wellega, north, west, south west and north south Shewa, Addis Ababa zone, Afar zone 3, 4 & 5, Tongo, Illubabur, west and east Harergie, Harer, Gurage, Arsi, Harer, Jijiga, Godere, Sheka, Keffa, Jimma, YEM, KT, Alaba, Hadiya, Dawro, Welayita, Sidama, Bench Maji, Basketo, Gamo gofa, Gedeo, Guji and South Omo exhibited Humid to Moist moisture condition. The rest parts of the countries exhibited moderately dry to very dry.

1.7. Vegetation Greenness (NDVI) in fraction July 2020

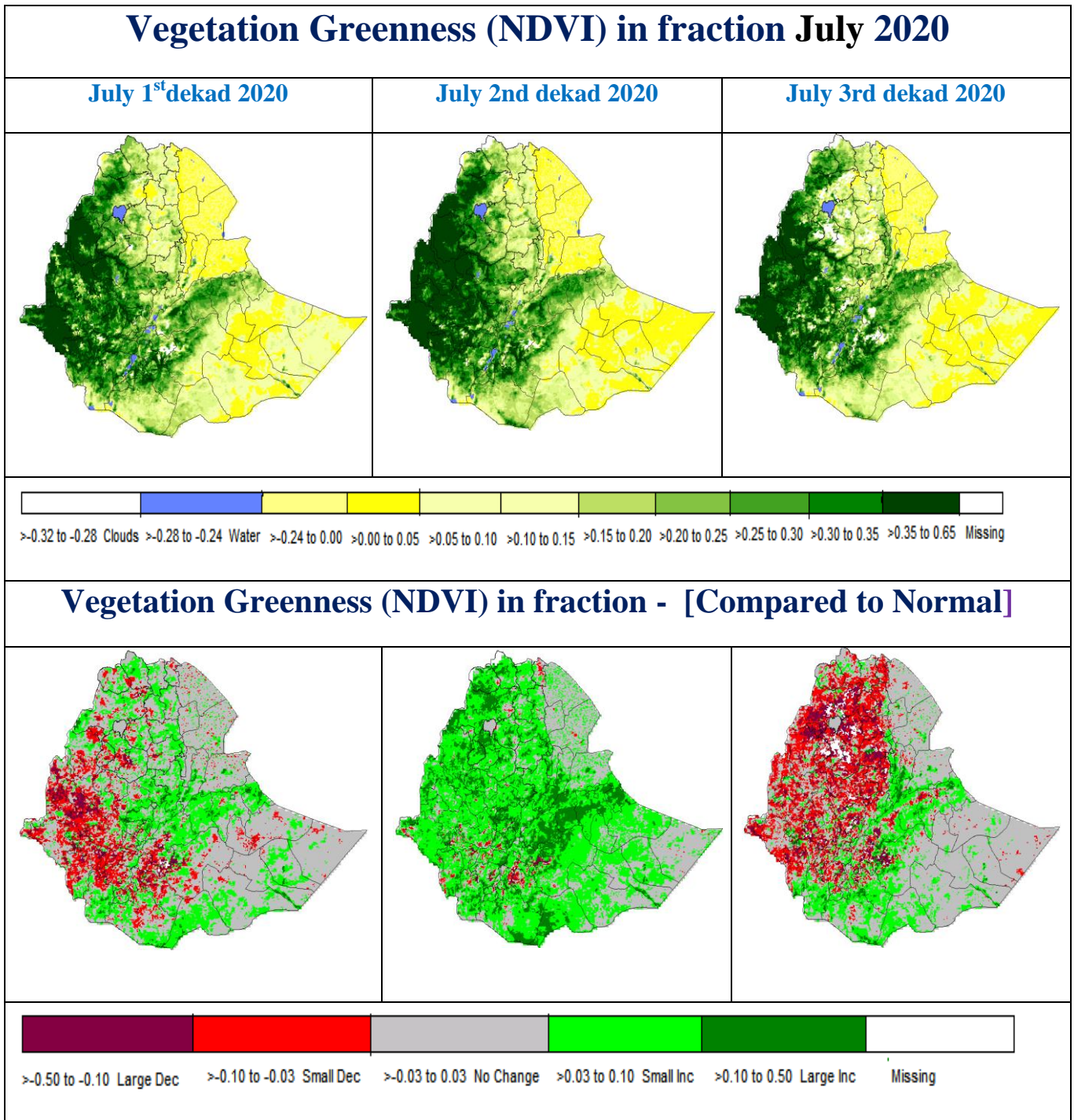


Fig.7 Vegetation Greenness (NDVI) in fraction and Compared to Normal July 2020

## **2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE**

### **2.1. Vegetation Condition And Impact On Agriculture On The Month Of July 2020**

In generally on the month of July 2020, due to the relative strength of rain bearing meteorological systems over most of Meher season crop growing and much of Kiremt rain benefiting areas have experienced good moisture in amount and distribution. This condition might be favourable to satisfy daily crop water requirement for various early planted Meher season crops as well as perennial plants. Moreover, this moisture might facilitate land preparation and sowing of cereals (Teff, wheat and barley), pulse (beans, peas and haricot beans) and oil seeds, further growth of early planted Meher crops and improved water resources, soil moisture reservoirs and the advancement of moisture toward the north-eastern and eastern part of the country could give an opportunity to collect and store rain water for areas often deal with moisture stress problem. The condition also might have positive implication to enhance the soil moisture availability and hereby it could satisfy water need of crops which are found at different growing stage. On the other hand, some areas experienced heavy fall ranging from 58.9 to 119.0 mm of rain within 24 hours also areas which have been receiving rainfall in continuous manner was created excess soil moisture which might lead to water logging and runoff further, according to the field report, some places like Bahir dar, Tepi, much of western and north-western parts have experienced heavy fall with hail and consequently certain level of damage were observed on crops, properties and human life.

### **2.1.1. Expected Weather Impact on Agriculture During The Coming Month of August 2020**

During the month of August, under normal circumstances, the rain producing systems are expected to be strengthening across Meher producing area of the country. Hence, the rainfall activities both in distribution and amount would be enhanced over Kiremt rain benefiting areas as well as north-eastern pastoral areas of the country. Also flood and hailstorm are expected in some parts of the country.

In the coming month of August 2020, the meteorological forecast information indicates that the seasonal rainfall activity is expected to continue in a good amount and distribution over much of Meher and Kiremt rainfall benefiting area of the country. In line with this, Oromia region of all zones of Wellega, Jimma, Ilubabor, all zones of Shewa, eastern and western Harerge, all zones of Arsi and Bale, Addis Ababa, Amhara region of western and eastern Gojam, north and south Gonder, Bahir dar zuria, Awi and Waghmera zones, North Shewa, north and south Wello including Oromia special zone, all zones of Tigray region, Benshangul-Gumuz and Gambella, SNNPR regions of Keffa, Bench Maji, Hadya, Gurage, Silti, Wolita, Dawero, Gedeo, Gamogofa and Sidama region zones will experience near normal to above normal rainfall. The situation will favor ongoing meher agricultural activities in terms of crop water requirement such as water availability of perennial plants, long cycle Meher crops which are found at grain filling and maturity stage, and availability of pasture and drinking water over pastoral and agro pastoral areas. Whereas Dire dawa, Harari, all zones of Afar region, Somali region of Fafen and City zones, South Omo, Segen people and Borena and Guji zones in most parts will experience near normal rainfall. Besides the expected moisture over some places where dry spells persisted during the previous dekad might have positive contribution on crop water requirements and enhancement of moisture deficit particularly over eastern and north eastern pastoral and agro pastoral low lands. However, the expected above normal rainfall over some areas may result in heavy falls it might lead to water logging and crop damage on crop fields found in low-lying areas and near riverbanks including in areas where the soil type is clay. In order to alleviate such adverse condition, prevention technique like channelling had better be strengthened over the flood prone areas. 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 excess moisture condition. However, the



expected humid moisture condition in some parts of the country might have positive impact on the ongoing agricultural activities in areas where there were moisture deficit and the seasonal rain withdraws earlier hence we advise farmers wisely utilize the rainfall obtained directly from the rain and flash flood from adjacent area as well as use water harvesting techniques 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.

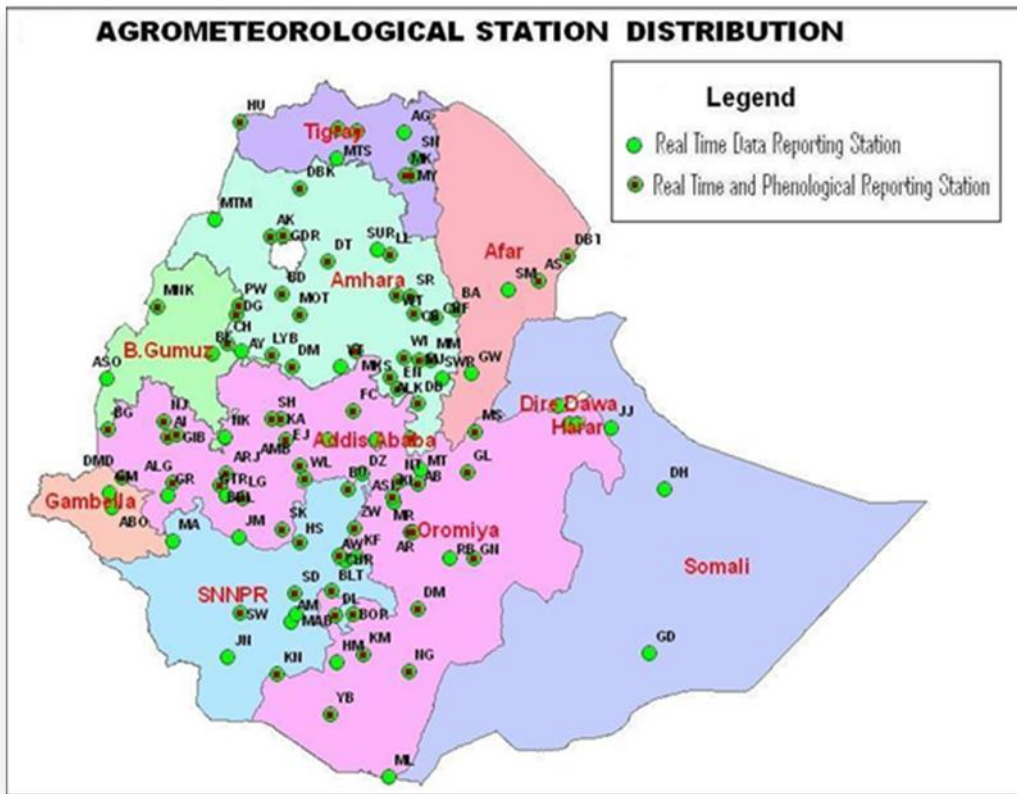
**DEKAD:** - First or second ten days or the remaining days of a month.

**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



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	SG
Assosa	ASO	Filtu	FL	M/Abaya	MAB	Gebeya	SR
Awassa	AW	Gambela	GM	Maichew	MY	Sirinka	SD
Aykel	AK	Gelemso	GL	Majete	MJ	Sodo	SD
B. Dar	BD	Ginir	GN	Masha	MA	WegelTena	WT
Bati	BA	Gode	GD	Masha	MA	Woliso	WL
Bedelle	BDL	Gonder	GDR	Mekele	MK	Woreilu	WI
BUI	BU	Gore	GR	Merraro	MR	Yabello	YB
Combolcha	CB	H/Mariam	HM	Metehara	MT	Ziway	ZW
D. Berehan	DB	Harer	HR	Metema	MTM		
D. Habour	DH	Holleta	HL	Mieso	MS		
D. Markos	DM	Hossaina	HS	Moyale	ML		
				M/Selam	MSL		