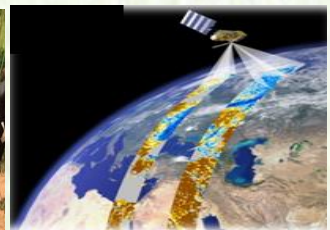


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FORE WARD

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.

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አህፅሮት
እ.ኤ.አ ጁላይ 2022

ባሳለፍነው የጁላይ የመጀመሪያው አስር ቀናት ለክረምት ዝናብ መኖር አመቺ ሁኔታ የሚፈጥሩ የአየር ሁኔታ ክስተቶች የተሻለ ጥንካሬ የነበራቸው በመሆኑ በአብዛኛው የክረምት ዝናብ ተጠቃሚ አካባቢዎች ከቦታ ቦታ በመጠን ይለያይ እንጂ በስርጭት ብዙ አካባቢዎችን ያዳረሰ የእርጥበት ሁኔታ እንደነበራቸው ከተለያዩ የግብርና ሚቲዎሮሎጂ ጣቢያዎች የተሰበሰቡ መረጃዎች ያመለክታሉ። ይህም ሁኔታ የክረምት ዝናብ ተጠቃሚ ለሆኑት የሀገሪቱ ክፍሎች አዎንታዊ ሚና የነበራቸው ሲሆን በተለይም አስቀድመው ለተዘሩና በተለያዩ የእድገት ደረጃ ላይ ለሚገኙ የተለያዩ ሰብሎች ሆነ ለቋሚ ተክሎች የውሀ ፍላጎት መሟላት ጥሩ ሁኔታ እንደነበረው መገንዘብ ተችሏል። በሌላ በኩል በአንዳንድ አካባቢዎች ላይ በተለይም በመካከለኛው ኢትዮጵያ አንዳንድ ሥፍራዎች የነበረው ከባድ ዝናብ የአፈር ውስጥ እርጥበት መብዛት እና በአንዳንድ ቦታዎች ላይ ለወንዝ መሙላትና ለጎርፍ ተጋላጭ በሆኑ አካባቢዎች ላይ ለጎርፍ መከሰት እንዲሁም ተከታታይነት የነበረው እርጥበታማ ሁኔታ በሰብል ማሳዎች ላይ የውሃ መተኛት ያስከተለ ሲሆን ይህም ሁኔታ እየተከናወነ በሚገኘው የእርሻ ስራ እንቅስቃሴ ላይ አሉታዊ ጎን ነበረው። ከዚህ በተጨማሪ በመካከለኛውና በምስራቅ የሀገሪቱ አካባቢዎች የተገኘው እርጥበት በተለይም ባሳለፍናቸው ቀናት ካገኙት እርጥበት ጋር ተዳምሮ የመጠጥ ውሀ አቅርቦትንም ሆነ የግጦሽ ሳር ልምላሜና የተፈጥሮም ሆነ የሰው ሰራሽ ምንጮችን ከማጎልበት አንጻር 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 የሀገሪቱ 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 ለመዝራት እንዲሁም በሀገሪቱ የተለያዩ ክፍሎች ቀደም ብለው ለተዘሩ የረጅም ጊዜ ሰብሎች፣ ለቋሚ ተክሎችና የጓሮ አትክልቶች የውኃ ፍላጎት መሟላትና አልፎ አልፎ ወደ ደቡብ፣ ሰሜን ምስራቅ እና የምስራቅ የሀገሪቱ ስፍራዎች ላይ ተስፋፍቶ የነበረው እርጥበት በአካባቢው ለሚካሄደው የእርሻ እንቅስቃሴ እንዲሁም ለእርብቶ አደሮችና ከፊል እርብቶ አደር አካባቢዎች ለመጠጥ ውሃና ግጦሽ ሳር ልምላሜ ጥሩ አስተዋጽኦ የነበረው ከመሆኑም በላይ ሰው ሰራሽም ሆነ የተፈጥሮ ምንጮችን ከማጎልበት አንጻር አዎንታዊ ሚና ነበረው። በአንጻሩ በአንዳንድ አካባቢዎች በተለይም ፣ በምዕራብ፣ በሰሜን ምዕራብና በመካከለኛው የሀገሪቱ ስፍራዎች ላይ አልፎ አልፎ 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 ሲሆን፤ በግብርናው አንቅስቃሴ ላይ አሉታዊ ተፅዕኖ ነበረው።

ባላለፍነው የጁላይ የመጨረሻው አስራ አንድ ቀናት ለክረምት ዝናብ መኖር አመቺ ሁኔታን የሚፈጥሩ የሚቲዎሮሎጂ ገጽታዎች የተሻለ ጥንካሬ የነበራቸው ሲሆን በተለይም በሰሜን ምስራቅ የሀገሪቱ አካባቢዎች ላይ ጠንከረ ያለ የእርጥበት ሁኔታ ተስተውሏል። ሆኖም ግን በአብዛኛው የክረምት ዝናብ ተጠቃሚና የመኸር ሰብል አብቃይ በሆኑት አካባቢዎች ላይ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ እንደነበረ ራቸው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። 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፣ ለቋሚ ተክሎችና ለተለያዩ የጓሮ አትክልቶች የውሃ ፍላጎት መሟላት እንዲሁም ለአርብቶ አደሮችና ከፊል አርብቶ አደር አካባቢዎች ለመጠጥ ውሃና ለግጦሽ ሳር ልምላሜ ጥሩ አስተዋጽኦ የነበረው ከመሆኑም በላይ ሰው ሰራሽም ሆነ የተፈጥሮ ምንጮችን ከማጎልበት አንፃር አዎንታዊ ሚና ነበረው። ፡ በአንፃሩ በአንዳንድ አካባቢዎች ላይ የነበረው ከባድና ተከታታይነት የነበረው የዝናብ ሁኔታ ለወንዝ መሙላትና ለጎርፍ ተጋላጭ በሆኑ አንዳንድ አካባቢዎች ላይ የጎርፍ መከሰት ያስከተለ ሲሆን እንዲሁም የአፈር ውስጥ እርጥበት መብዛት እንዲኖር አድርጓል።

ባጠቃላይ ባላለፍነው የጁላይ ወር ለክረምት ዝናብ መኖር አመቺ ሁኔታ የሚፈጥሩ የአየር ሁኔታ ክስተቶች የነበሩ በመሆኑ፤ በአብዛኛው የክረምት ዝናብ ተጠቃሚ አካባቢዎች ላይ ምንም እንኳን ከቦታ ቦታ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያዳረሰ የእርጥበት ሁኔታ ነበራቸው። ይህም የተገኘው ዝናብ የአፈርን እርጥበት ከማሻሻልም አልፎ 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 የውኃ ፍላጎታቸውን ከሟሟላት አንፃር የጎላ ሚና ከመኖሩም በላይ ከኤፕሪል ጀምሮ ቀደም ብለው ለተዘሩ እንደ በቆሎና ማሽላ ለመሳሰሉ የረጅም ጊዜ የመኸር ሰብሎች እንዲሁም ለተለያዩ ቋሚ ተክሎች በተሟላ ሁኔታ እንዲያድጉ የጎላ

አስተዋፅዖ ነበረው። እንዲሁም የነበረው እርጥበታማ ሁኔታ የአካባቢ ጥበቃ ተግባራትን ለማከናወንም ሆነ በአረንጓዴ አሻራ መርህ ግብር የተተከለ የተለያዩ የዛፍና የፍራፍሬ ችግኞች በተሟላ መልኩ እንዲያድጉ አዎንታዊ ሚና ነበረው። ከዚህ በተጨማሪ በተለይም በሰሜን ምስራቅ፣ በምስራቅ እና በደቡብ ኦሮሚያ የአርብቶ አደርና በከፊል የአርብቶ አደር አካባቢዎች የተገኘው የተለያዩ መጠን ያለው እርጥበት ለግጦሽ ሳርና ለመጠጥ ውኃ አቅርቦት አዎንታዊ አስተዋፅዖ ከማበርከቱም በላይ ሰው ሰራሽም ሆነ የተፈጥሮ ምንጮችን ከማጎልበት አንፃር አዎንታዊ ሚና ነበረው። በሌላ በኩል ከባድ ንፋስና በረዶ የቀላቀለ ዝናብ ያስከተለው ጎርፍ በባህርዳር ዙሪያ በንብረት ላይ ጉዳት ያስከተለ ሲሆን በሌላ አንጻር ድግሞ በተከሰተ የመብረቅ ክስተት በፊቹ ዙሪያ በሁለት ሰዎች ህይወት ላይ አደጋ ያስከተለ እንደነበረ ከሚቲዎሮሎጂ ጣቢያዎች የተገኙ መረጃዎች አመልክተዋል። በመደበኛ ባህሪያቸው በእርጥበት መብዛት በሚታወቁ ስፍራዎች ላይ ተከታታይነት የነበረው እርጥበታማ ሁኔታ የአፈር እርጥበት መብዛትን ያስከተለ ሲሆን፣ ይህም ሁኔታ እየተከናወነ በሚገኘው የእርሻ ስራ እንቅስቃሴ ላይ አሉታዊ ጎን ነበረው። በተጨማሪም የነበረው ከፍተኛ እርጥበት ለአረም መስፋፋትም ሆነ ለተለያዩ የሰብል በሽታዎች መከሰት ምቹ ሁኔታ ነበረው።

SUMMARY

JULY 2022

During the first ten days of July 2022, according to the weather information collected from different agro-meteorological stations, across the country most parts of Kiremt rainfall benefiting and Meher producing areas had experienced enhanced moisture during the last dekad of July due to the strengthening of rain bearing meteorological systems. Moreover some areas also experienced heavy fall during the dekad under review. In line with this, Tigray, Amhara, Benshangul-Gumuze, west and central Oromia, South West Ethiopia, southern highland, Northern Somali, Hareri, Dire Dawa, Sidama, Gambella, SNNPR and South-western region, Afar and southern Oromia received light to heavy amount of rainfall. The observed enhanced moisture might favorable to sustain the growth and fulfil the daily water need of early planted Meher season crops including long and medium cycle crops and perennial plants. The moisture expanded 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.

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 2022, according to the weather information collected from different agro-meteorological stations, across the country most parts of Kiremt rainfall benefiting and Meher producing areas had experienced enhanced moisture during the last dekad of July due to the strengthening of rain bearing meteorological systems. Moreover some areas also experienced heavy fall during the dekad under review. In line with this, Tigray, Amhara, Benshangul-Gumuze, west and central Oromia, South West Ethiopia, southern highland, Northern Somali, Hareri, Dire Dawa, Sidama, Gambella, SNNPR and South-western region, Afar and southern Oromia received light to heavy amount of rainfall. The observed enhanced moisture might favorable to sustain the growth and fulfil the daily water need of early planted Meher season crops including long and medium cycle crops and perennial plants. The moisture expanded 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 as to. On the other hand, the recorded heavy rainfall might trigger flash flood occurrence and water logging due to excess moisture.

According to agricultural meteorological data collected from different parts of the country, the meteorological conditions during the third dekad of July had shown more strength in amount and coverage over eastern section of the country. Like with, other areas of Kiremt rain benefiting and Meher season crop growing areas received various amount of moisture during the dekad under review. In line with, Tigray, Amhara, Benshangule, west and central Oromia, southern high lands, northern Somali, Hareri, Dire Dawa, Gambella, SNNPR, Sidama, South West Ethiopia and Afar recorded light to heavy precipitation. Due to the relative strength of meteorological systems, some place, including Debark, Gonder, D/Tabor, Bahir Dar, Sirinka, Kombolcha, Bati, Werilu, Debrework, D/Brihan, Kachise, Jimma, Wliso, Limugenet, Nekemt, Abebo, Masha and Hosana recorded heavy fall in the range of 30.4 to 117.9mm in a single day. The observed moisture during the dekad might have positive implication toward Meher agricultural activities, such as, to sustain early planted Meher season crops, for land preparation for sowing mid-term Meher crops, to fulfill the daily water need of perennial plants and to ensure the availability of pasture and drinking water over pastoral and agro-pastoral areas. In addition, the received moisture also played significant role to enrich both natural and artificial water points. On the other hand, the heavy and continuous rainfall in some areas might cause river overflow and flooding in some places that are prone to flooding, and resulted excess soil moisture.

In general, during the last month of July 2022, conducive weather condition was strengthening from day to day and that favor most Kiremt rain benefiting areas to receive ample amount of moisture with good coverage. Occasionally, some places experienced heavy fall up to 117 mm in a single day which potentially could trigger flash flood over some flood prone areas. Light to heavy rainfall was observed over most zones of Tigray, Amhara, Benshangule, south, west and central Oromia, southern high lands, northern Somali, Hareri, Dire Dawa, Gambella, SNNPR, Sidama, South West Ethiopia and Afar. Among, heavy rainfall ranging from 30.0 to 117.0mm was recorded over Bahir Dar, Shawra, Alem Ketema, Tsitska, D/Tabor, Nifasmewcha, Enewari, Aykele, Amba Mariam, Metema, Debark, D/Work, Wereilu, Gonder, Mota, Pawi, D/Birehan, Kachise, Gundomeskel, Nekemt, Nejo, Chewaka, Bore, Bure, Fitcha, Addele, Arijo, Jimma, Gore, Mtehara, Woliso, Addis Ababa, Gewane, Masha, Hossana, Aman, Worabe, Emdibir, Assosa, Masha and Aliyad. The observed enhanced moisture during the Month might have positive implication toward improving soil moisture, sustaining early planted Meher season long and mid-term crops, for land preparation for sowing various crops that often planted from July, to fulfill the daily water

need of perennial plants. The observed moisture over the northeastern, eastern and southern Oromia was positive implication toward ensuring the availability of pasture and drinking water over pastoral and agro-pastoral areas. In addition, the received moisture also played significant role to enrich both natural and artificial water points. Moreover, the condition was favorable to undertake various environmental protection activities as well as to achieve the national green legacy plan of planting fruit and trees. On the other hand, the heavy and continuous rainfall with hail and strong wind over Bahir dar resulted moderate damage on properties while two life loss was reported due to lightening in Fitcha. The observed continuous moist conditions in some places resulted excessive soil moisture accumulation which in turn had a negative impact on the ongoing agricultural activity and might cause weed infestation and the occurrence of some excess moisture driven crop diseases.

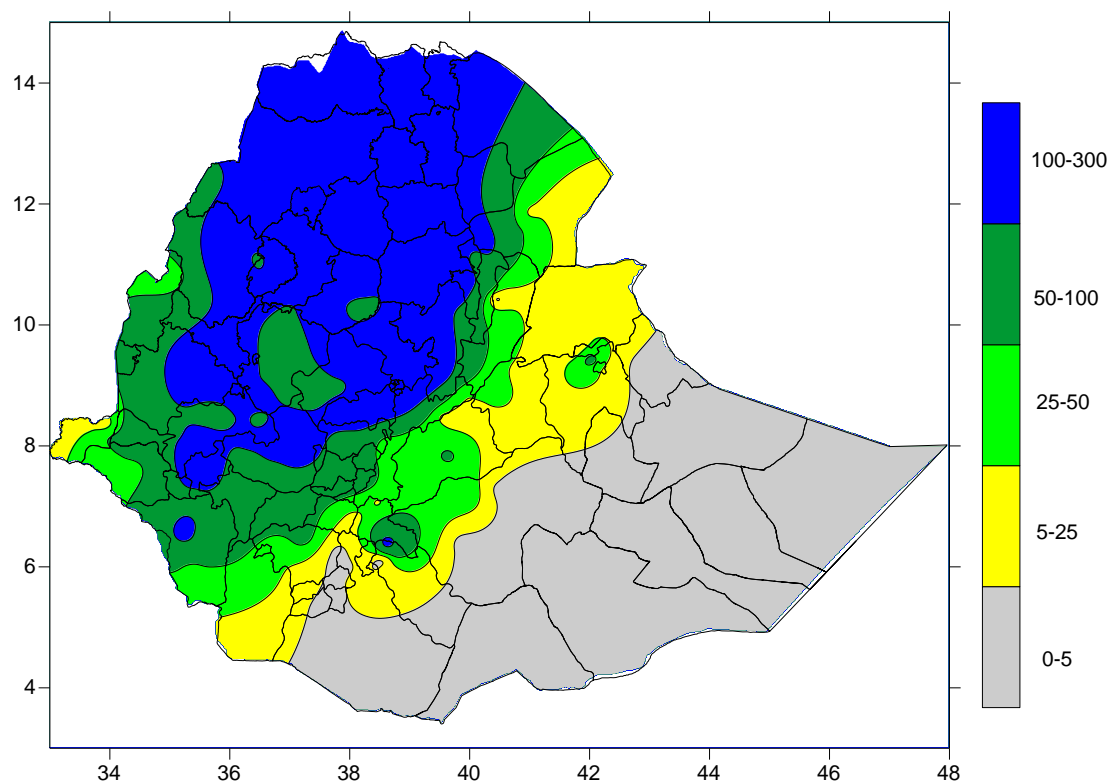


Fig 1. Rainfall distribution in mm (21 – 31) July 2022

1. WEATHER ASSESSMENT

1.1. Rainfall amount (21 – 31) July 2022

During third dekad of July 2022 west, central, south and east Tigray, Wag Himera, north and south Gonder, North and south Wollo, Bahir Dar, west and east Gojam, Kamashi, Metekel, west & east Wellega, Sheka, Jimma, YEM, north, west and south west Shewa, Addis Ababa zone, Oromia especial zone, Afar zone 1, 2 & 3 and Bench Maji received 100-200mm Rain fall. Afar zone 1, 2, 3, 4 & 5, east Shewa, Gurage , Metekel, Assosa, Tongo, west and east Wellega, Illubabur, Gambela zone 1 & 2, Godere, Keffa, Dawero, Bench Maji, Basketo, Welayita, Alaba, Selti, Arsi and Sidama received 50-100mm Rain fall. Afar zone 1, 3 & 5, west and east Harergie, Harer, Arsi, Bale, Alaba, Welayita, Sidama, Gamo gofa, South Omo, Gambela zone 2 & 3 and Assosa received 25-50mm Rain fall. Gambela zone 3, Afar zone 1 & 3, Shinile, west and east Harergie, Harer, Jigjiga, Arsi, Bale, Guji, Gedeo, Gamo gofa, South Omo and Konso received 5-25mm Rain fall. The rest parts o f the countries received 0-5mm Rainfall.

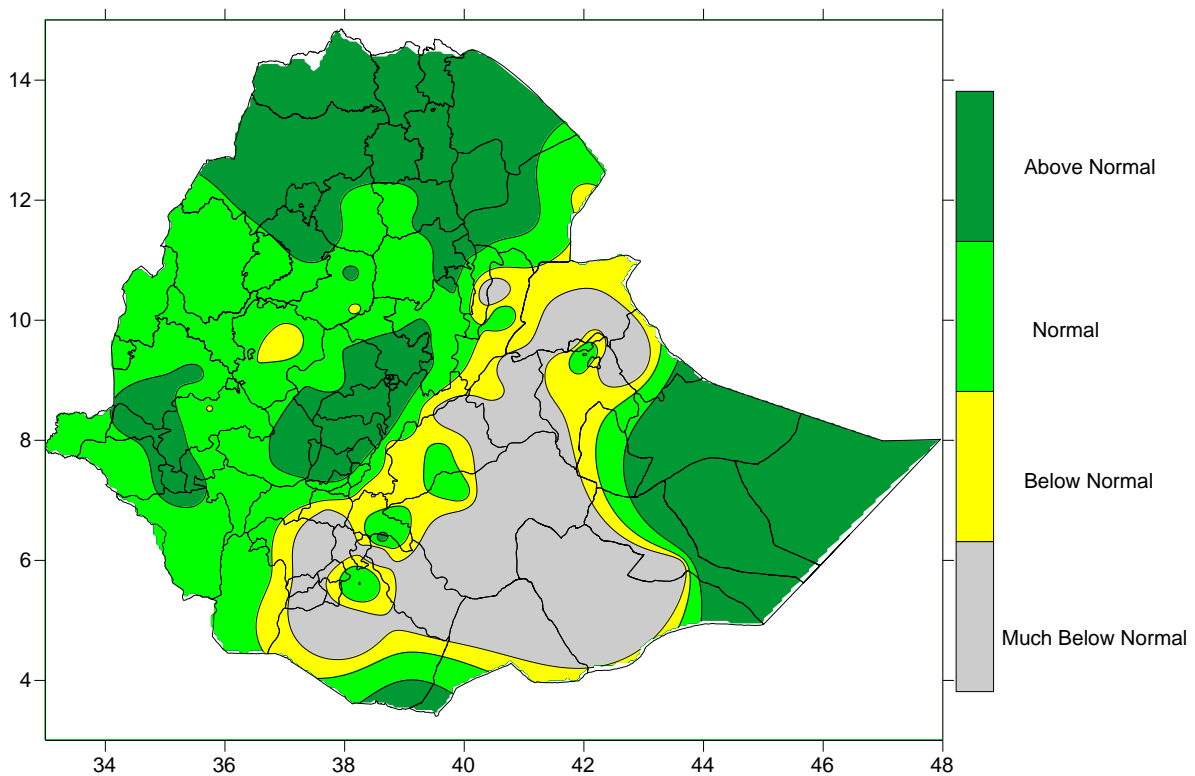


Fig. 2 Percent of normal rainfall distribution (21 – 31 July 2022)

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 2022)

Looking into the percent of normal rainfall condition, during July third dekad 2022 pocket area of Shinile, west and east Harergie, Harer, Jigjiga, Arsi, Bale, Afder, Liben, Sidama, Gamo gofa, Guji, Borena, Amaro, Konso and Gedeo exhibited Below Normal too Much Below Normal. The rest parts of the countries exhibited Normal to Above Normal.

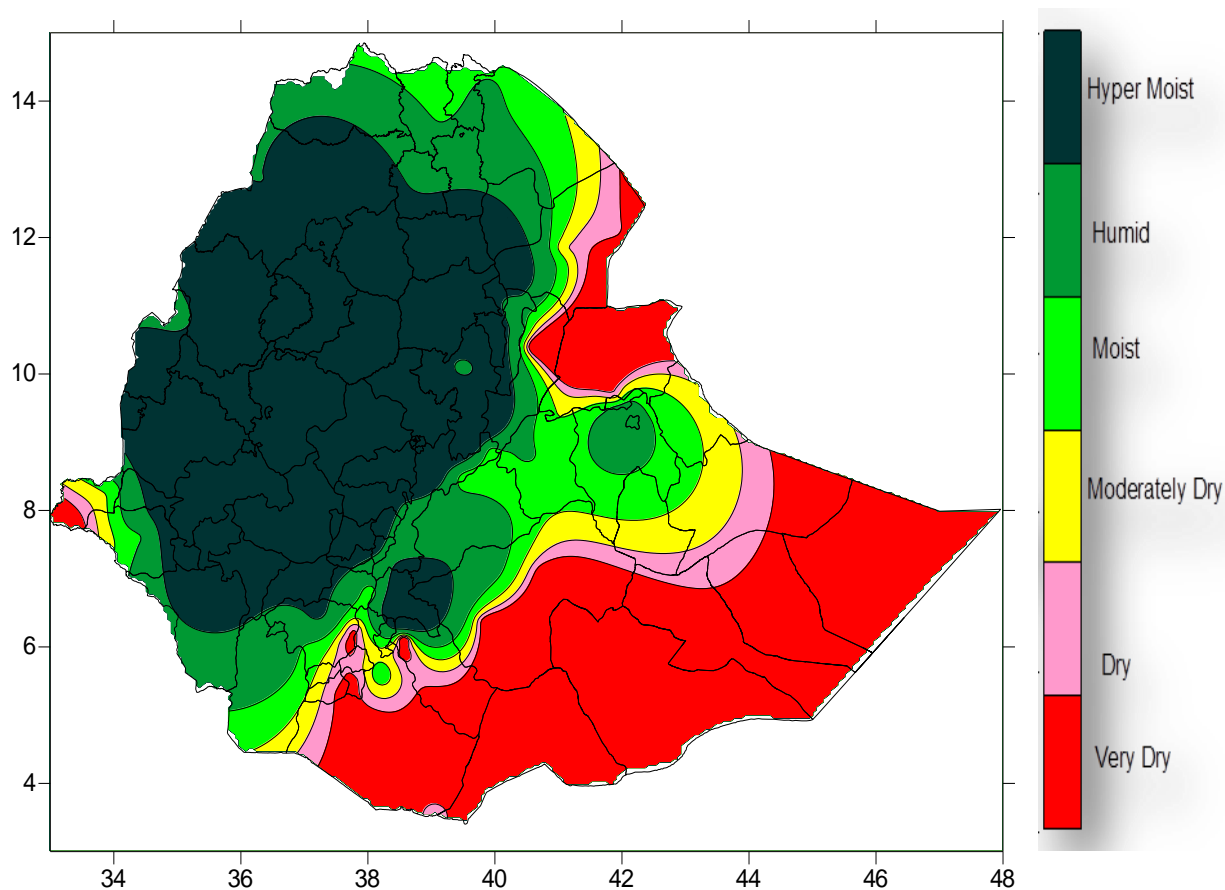


Fig. 3 Moisture Status (21-31 July 2022)

1.3. Moisture status (21 – 31 July 2022)

During 3rd dekad of July 2022 in accordance with the moisture status map above, much of Meher producing and Kiremt rain benefiting areas experienced Humid to Hyper Moist and Moist moisture condition. The rest parts of the countries exhibited moderately dry to very dry.

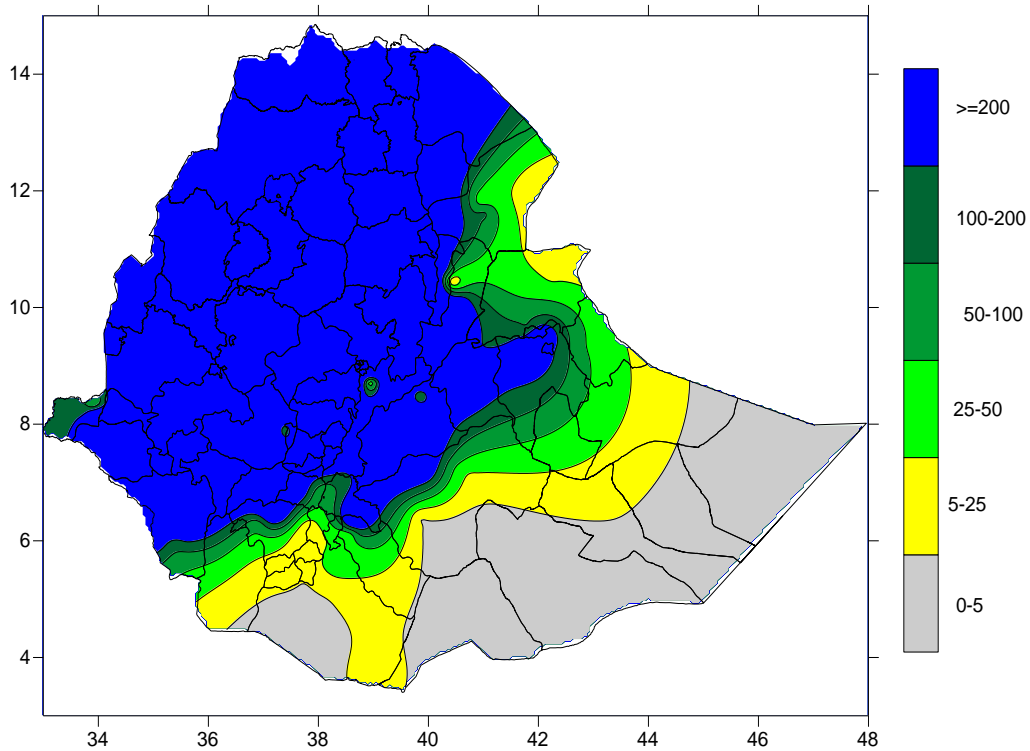


Fig. 4 Rainfall amount in mm for the month of July 2022

1.4. Rainfall amount on the month of July 2022

During the month of July 2022, west, central, south and east Tigray, Wag Himera, north and south Gonder, North and south Wollo, Bahir Dar, west and east Gojam, Kamashi, Metekel, Assosa, Tongo, west & east Wellega, Sheka, Jimma, YEM, north, west and south west Shewa, Addis Ababa zone, Oromia especial zone, Afar zone 1, 2 & 3 and Bench Maji received ≥ 200 mm Rain fall. Gambela zone 1, Basketo, Gedeo, Bale, east and west Harergie, Shinile received 100-200mm Rain fall. Basketo, Gedeo, Bale, east and west Harergie, Shinile received 50-100mm Rain fall. Shinile, Jigjiga, Fik, Degehabur, Bale, Guji, Gedeo and South Omo received 25-50mm Rain fall. Shinile, Degehabur, Korahe, Gode, Fik, Bale, Guji, Borena, Amaro, Konso, South Omo, Dirashe and Burji received 5-25mm Rain fall. The rest parts of the countries received 0-5mm Rainfall.

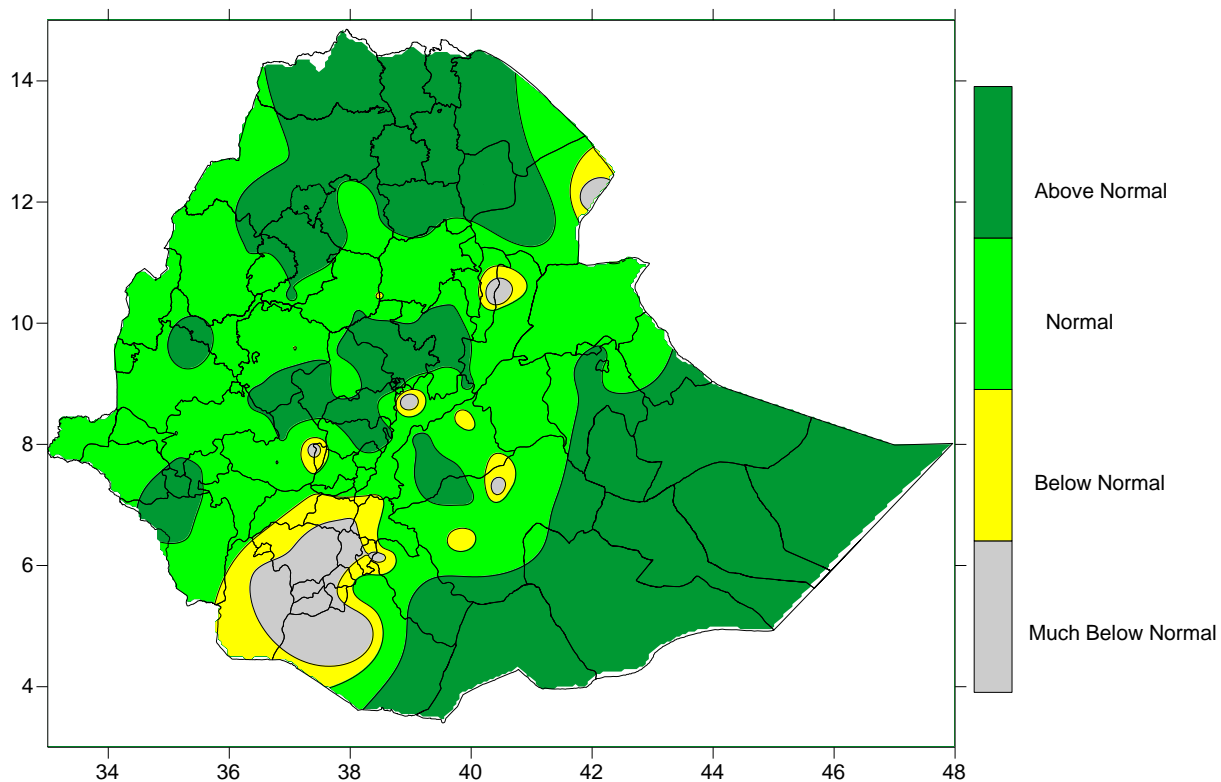


Fig. 5 Percent of Normal Rainfall for the month of July 2022

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 2022

During the month of July 2022 pocket area Afar zone 5, east Shewa, Arsi, Jimma, YEM, Basketo, Welayita, Sidama, Gamo gofa, Gedeo, South Omo, Dirashe, Konso, Amaro, Borena and Burji exhibited Below Normal too Much Below Normal. The rest parts of the countries exhibited Normal to Above Normal.

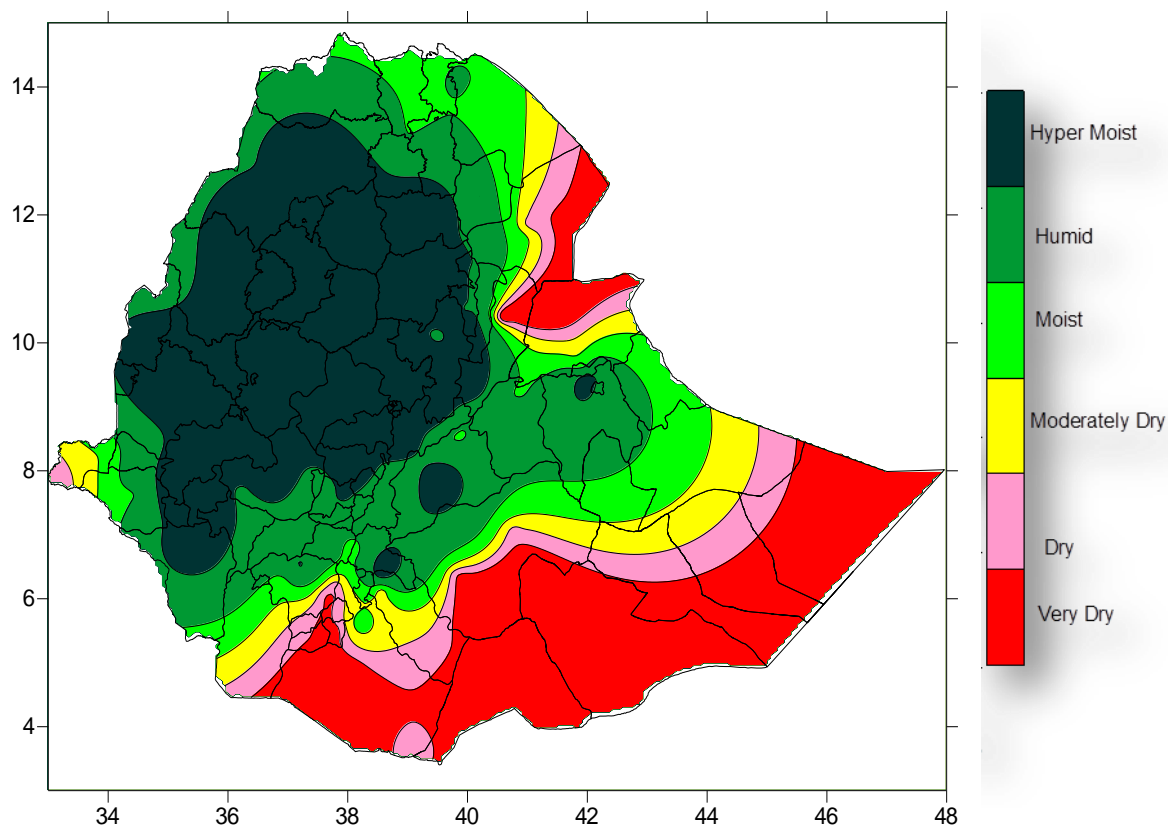


Fig. 6 moisture status for the month of July 2022

1.6. Moisture status on the month of July 2022

In accordance with the moisture status map above, much of Meher producing and Kiremt rain benefiting areas experienced Humid to Hyper Moist and Moist moisture condition. The rest parts of the countries exhibited moderately dry to very dry.

1.7. Vegetation Greenness (NDVI) in fraction July 2022

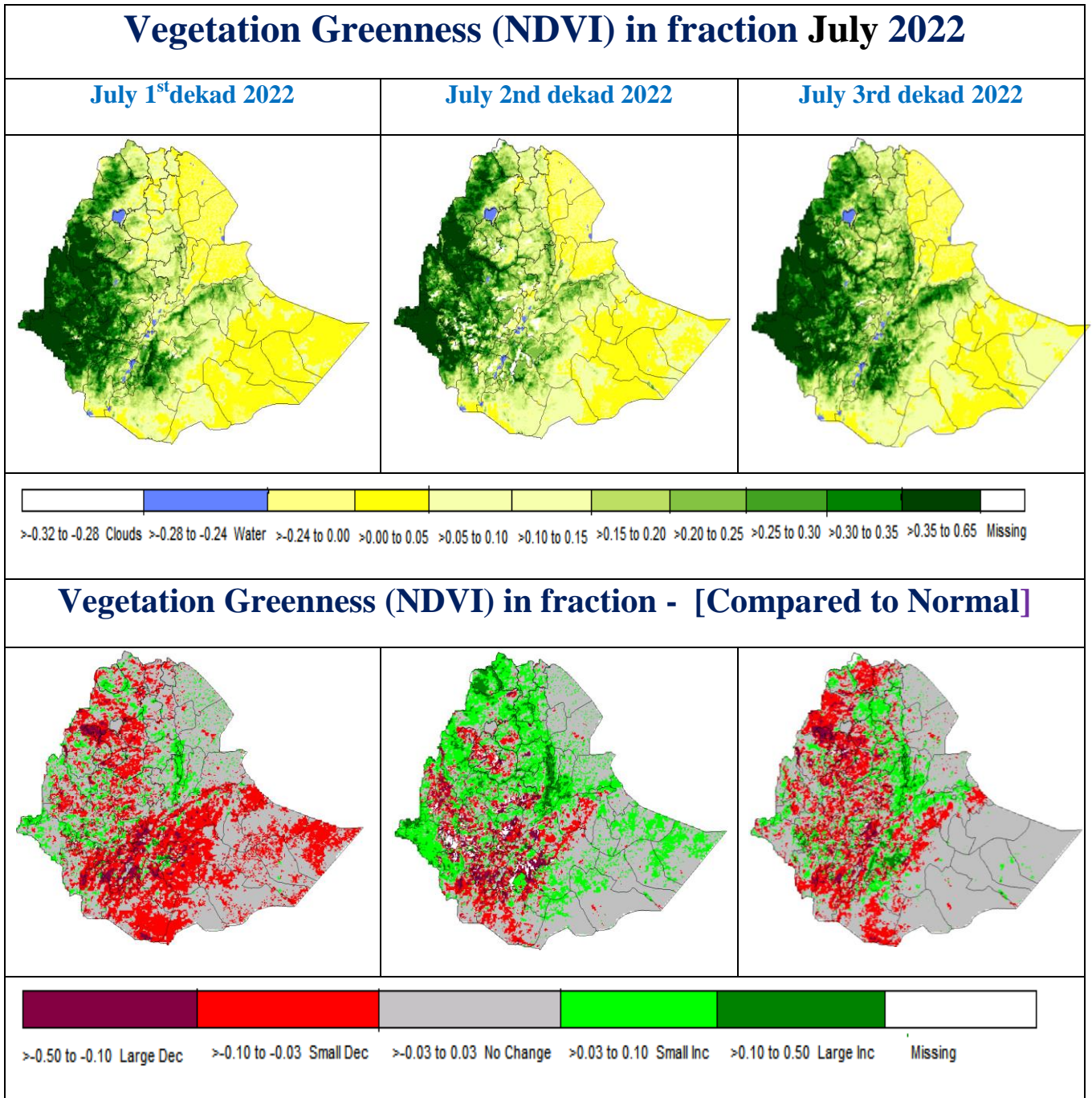


Fig.7 Vegetation Greenness (NDVI) in fraction and Compared to Normal July 2022

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE ON THE MONTH OF JULY 2022

In general, during the last month of July 2022, conducive weather condition was strengthening from day to day and that favor most Kiremt rain benefiting areas to receive ample amount of moisture with good coverage. Occasionally, some places experienced heavy fall up to 117 mm in a single day which potentially could trigger flash flood over some flood prone areas. Light to heavy rainfall was observed over most zones of Tigray, Amhara, Benshangule, south, west and central Oromia, southern high lands, northern Somali, Hareri, Dire Dawa, Gambella, SNNPR, Sidama, South West Ethiopia and Afar. Among, heavy rainfall ranging from 30.0 to 117.0mm was recorded over Bahir Dar, Shawra, Alem Ketema, Tsitska, D/Tabor, Nifasmewcha, Enewari, Aykele, Amba Mariam, Metema, Debark, D/Work, Wereilu, Gonder, Mota, Pawi, D/Birehan, Kachise, Gundomeskel, Nekemt, Nejo, Chewaka, Bore, Bure, Fitcha, Addele, Arijo, Jimma, Gore, Mtehara, Woliso, Addis Ababa, Gewane, Masha, Hossana, Aman, Worabe, Emdibir, Assosa, Masha and Aliyad. The observed enhanced moisture during the Month might have positive implication toward improving soil moisture, sustaining early planted Meher season long and mid-term crops, for land preparation for sowing various crops that often planted from July, to fulfill the daily water need of perennial plants. The observed moisture over the northeastern, eastern and southern Oromia was positive implication toward ensuring the availability of pasture and drinking water over pastoral and agro-pastoral areas. In addition, the received moisture also played significant role to enrich both natural and artificial water points. Moreover, the condition was favorable to undertake various environmental protection activities as well as to achieve the national green legacy plan of planting fruit and trees. On the other hand, the heavy and continuous rainfall with hail and strong wind over Bahir dar resulted moderate damage on properties while two life loss was reported due to lightening in Fitcha. The observed continuous moist conditions in some places resulted excessive soil moisture accumulation which in turn had a negative impact on the ongoing agricultural activity and might cause weed infestation and the occurrence of some excess moisture driven crop diseases.

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH OF AUGUST 2022

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 2022, 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 particularly north-eastern, northern, north-western and central parts expected better rainfall in amount and distribution. In line with this, Oromia region of all zones of Wellega, all zones of Shewa, Jimma, Addis Ababa, Addis Ababa zuria, all zones of Amhara and Tigray Afar will experience near normal to above normal rainfall. In addition to this Benshangul-Gumuz, SNNPR region of Hadya, Gurage, Silti, Wolita, Geddo, Sidama and south-western region zones, Oromia regions of Kelem Wollega, Ilubabor, Buno Beddele, Arsi and western Arsi, eastern and western Harerge, Dire dawa and Harari, all zones of Gambela, Somali regions of Sity and Fafen zones will experience near 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, short cycle Meher crops which are sown after the month of June and availability of pasture and drinking water over pastoral and agro pastoral areas. Besides the expected moisture over some places where dry spells persisted during the previous decade 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 techniques like channelling had better be strengthened over the flood prone areas. Moreover, the continuous and widespread rainfall over some parts might create conducive conditions 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 on-going 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 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.

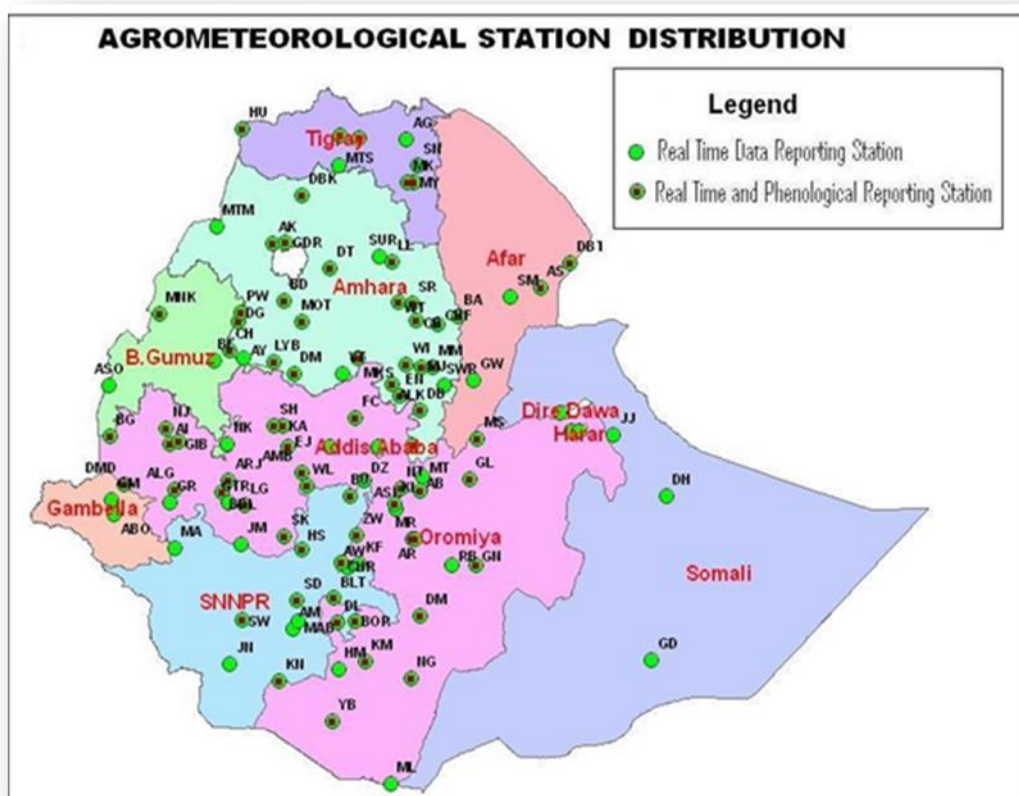
DEKAD: - First or second ten days or the remaining days of a month.

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	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		