ETHIOPIA METEOROLOGY INISTITUTE Agrometeorological Bulletin

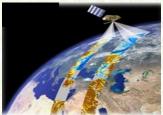
MONTHLY AGROMETEOROLOGICAL BULLETIN

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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

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አህፅሮት እ.ኤ.አ ኦንስት 2022

የመጀመሪያዎቹ የአባስት አስር ቀናት ለክረምት ዝናብ መኖር አመቺ ሁኔታን የሚፈዋሩ የሚቲዎሮሎጂ ገጽታዎች በተወሰነ ደረጃ አንጻራዊ ጥንካሬ የነበራቸው ሲሆን ከዚህም ጋር ተያይዞ አብዛኛዎቹ የክረምት ዝናብ ተጠቃሚና የመሽር ሰብል አብቃይ በሆኑት አካባቢዎች ላይ በመጠን ይለያይ እንጂ በስርጭት ረገድ ብዙ ቦታዎችን ያዳረሰ የእርዋበት ሁኔታ እንደነበራቸው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። ይህም የተገኘው እርዋበት ለመኸር የእርሻ ስራ እንቅስቃሴ ላይ አዎንታዊ ሚና የነበረው ሲሆን፤ በተለይም አስቀድመው ለተዘሩም ሆነ በዘር ላይ ለሚገኙ የመካከለኛ ጊዜ የመኸር ሰብሎችም ሆነ በምዕራብና በደቡብ ምዕራብ የሀገሪቱ ክፍሎች ላይ ቀደም ብለው ለተዘሩ የረጅም ጊዜ ሰብሎች፣ ለቋሚ ተክሎችና ለተለያዩ የጓሮ አትክልቶች የውሃ ፍላጎት መሟላት እንዲሁም በመስራቅ እና በሰሜን ምስራቅ ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደር አካባቢዎች ለመጠዋ ውሃና ለግጦሽ ሳር ልምሳሜ ዋሩ አስተዋጽኦ የነበረው ሲሆን በተጨማሪም ሰው ሰራሽም ሆነ የተፈዋሮ ምንጮችን ከማጎልበት አንፃር አዎንታዊ ሚና ነበረው። በአንፃሩ በአንዳንድ አካባቢዎች ላይ የነበረው ከባድና ተከታታይነት የነበረው የዝናብ ሁኔታ ለወንዝ መሙላትና ለጎርፍ ተጋላዌ በሆኑ አንዳንድ አካባቢዎች ላይ የጎርፍ መከሰትም ሆነ የአፈር ውስዋ እርዋበት መብዛት እንዲኖር ከማድረጉ ጋር ተያይዞ በሰብል ሁለንተናዊ እድባት ላይ *መ*ጠነኛ አሉታዊ ተጽዕኖ ነበረው።

በኦገስት ወር ሁስተኛው አስር ቀናት ለክረምት ዝናብ መኖር አመቺ ሁኔታን የሚልቀሩ የሚቲዎሮሎጂ ገጽታዎች የተሻለ ቀንካሬ የነበራቸው በመሆኑ ምንም እንኳን ክሰሜን ምዕራብና ክደቡብ ምዕራብ የሀገራቱ አካባቢዎች ላይ አልፎ አልፎ የመቀነስ ሁኔታ ቢኖርም በአብዛኛው የክረምት ዝናብ ተጠቃሚና የመኸር ሰብል አብቃይ አካባቢዎች ላይ ብዙ ቦታዎችን የሸፊን ከእርተበታማ (Moist condition) እስከ እጅግ በጣም እርተበታማነት (Supper Moist) የደረሰ የእርተበት ሁኔታ ነበራቸው፡፡ ይህም የተገኘው እርተበት ለመኸር የእርሻ ስራ እንቅስቃሴ አዎንታዊ ሚና የነበረው ሲሆነ አስቀድመው ለተዘሩም ሆነ በዘር ላይ ለሚገኙ እንዲሁም በምዕራብና በደቡብ ምዕራብ የሀገራቱ ክፍሎች ላይ ቀደም ብለው ለተዘሩ ለረጅም ጊዜ ሰብሎች የውሃ ፍላጎታቸውን ከማሟላት አንጻር ከፍተኛ አዎንታዊ ሚና ነበረው:: በተጨማሪም በሰሜን ምስራቅ እና በምስራቅ የአርብቶ አደሮችና የክፊል አርብቶ አደር አካባቢዎች ላይ የተገኘዉ እርተበት ለሰው ሰራሽም ሆነ የተልቀሮ ምንጮችን ከማንለበቱም በላይ የተሻለ የመጠቀ ውሃና የግጦሽ ሳር አቅርቦት እንዲኖር በነ ነን ነበረው፡፡ በአንጻሩ ተጠናክሮ ከነበረው የሚቲዎሮሎጂ ገጽታ አንጻር በአንዳንድ ለጎርፍ ተጋላም በሆኑ አካባቢዎች

ሳይ የነበረው ከባድ ዝናብ የጎርፍ ክስተት እንዲኖር ያደረገ ሲሆን በሌላ በኩል ደግሞ ከነበረው ተከታታይ ዝናባማ ቀናት *ጋ*ር ተያይዞ በተወሰኑ አካባቢዎች ሳይ የአፈር ውስጥ እርጥበት መብዛት እና በማሳዎች ሳይ የውሃ የመተኛት ክስተት ተስተውሏል::

የኦገስት ሶስተኛው አስራ አንድ ቀናት ለወቅቱ ዝናብ መኖር አመቺ የሆኑት የአየር ሁኔታ ክስተቶች ከመጠናከራቸው ጋር ተያይዞ የመኸር ሰብል አብቃይና የክረምት ዝናብ ተጠቃሚ በሆኑ የሀገሪቱ አካባቢዎች ላይ በተለይም በመካከለኛዉ፣ በሰሜን፣ በምዕራብ፣ በደቡብ ምዕራብ እንዲሁም በምስራቅ የሀገሪቱ አካባቢዎች ላይ በመጠንም ሆነ በሥርቄት ረገድ የተጠናከረ የእርተበት ሁኔታ ነበር። ይህም ሁኔታ በተለያየ የእድነት ደረጃ እና ፍሬ በማፍራት ላይ ለሚገኙ ሰብልች የውሃ ፍላንት መሟላት ዋሩ አስተዋጽኦ ነበረው። ከዚህ በተጨማሪ ለንሮ አትክልት፣ ለዕዕዋት ልምላሜ፣ ለአርብቶ አደሩና ክፌል አርብቶ አደሩ አካባቢዎች ለመጠዋ ውሃና ለግመሽ ሳር አቅርቦት መሟላት የጎላ አስተዋዕኦ ነበረው። በለላም በኩል በአንዳንድ አካባቢዎች ላይ በረዶና ነፋስ የቀላቀለ ከባድ ዝናብ የነበረ ሲሆን፣ በዚህም ምክንያት ቅጽበታዊ ጎርፍና የመሬት መንሸራተት በተወሰኑ ቦታዎች በመከሰቱ በተለያየ የእድነት ደረጃ ላይ ባሉ ሰብልች፣ በአሬር ተበቃ ሥራ እንዱሁም በሰው እና በንብረት ላይ መጠነኛ ጉዳት ነበረው። በአንጻሩ ባለፉት አሰራ አንድ ቀናት የተገኘው እርተበት ቀደም ባለት ቀናት እርተበት ባልተዳረሰባቸው እና እዋረት በነበረባቸው ቆላማ አካባቢዎች ለሚኖሩት አርብቶ አደርና ክፌል አርብቶ አደር አካባቢዎች ለግመሽ ሳርና ለመጠዋ ውሃ አቅርቦት ጥሩ አስተዋዕኦ ነበረው።።

ባጠቃላይ ባለፌው የኦገስት ወር ለወቅቱ ዝናብ መኖር አመቺ የሆኑ የአየር ሁኔታ ክስተቶች ከመጠናከራቸው ጋር ተያይዞ የክረምት ዝናብ ተጠቃሚና የመሽር ሰብል አብቃይ በሆኑ የሀገሪቱ አካባቢዎች ላይ በመጠንም ሆነ በሥርጭት ረገድ ቀሩ የእርተበት ሁኔታ ነበራቸዉ፡፡ ይህም ሁኔታ የአፌርን እርተበት ከማሻሻሉና ተክልች የሚያስፌሌጋቸውን ውኃ ከማቅረብ አንጻር ገንቢ ሚና ነበረው፡፡ በተጨማሪም ክሰብል ልማት አንጻርም ቀደም ሲል በሚያዝያና በግንቦት ተዘርተው በተለያየ የአድንት ደረጃ ላይ ለሚኙት የረጅም ጊዜ ሰብሎች እንደ ማሽላና በቆል ለመሳሰለት እንዲሁም በክረምት ወቅት ተዘርተው በቡቃያና በተለያየ የአዴንት ደረጃ ላይ ላሉት እንደ ስንዴ፣ ንብስ፣ አጃ እና ጨፍ ለመሳሰለት የብርዕ ሰብልች፣ የተራጥሬና የቅባት እህልች በተጨማሪም ለቋሚ ተክልች የዉሃ ፍላንት መሟላት ምቹ ሁኔታን ከመፍጠሩም ባሻገር ለአርብቶ አደሩና ክፌል አርብቶ አደሩ አካባቢዎች ለመጠቀ ውሃና ለግብሽ ሳር አቅርቦት መሟላት በጎ ጎን ነበረው፡፡ እንዲሁም በተከታታይ ዝናብ በማግኘት ላይ በነበሩ በአንዲንድ የሀገሪቱ አካባቢዎች ላይ ከባድ ዝናብ የንበረ ሲሆን፣ ባለፌው ወር አሌፎ አሌፎ

ከነበረዉ ጠንካራ የደመና ክምችት በሃያ አራት ሰዓታት ዉስጥ እስከ 125.4 ሚ.ሜ የሚደርስ ከባድ መጠን ያለዉ ዝናብ በመጣሉ ቅፅበታዊ ጎርፍ በተለያዩ አካባቢዎች ሲይ አስከትሷል፡፡ በ24 ሰዓት ውስጥ ከ 30 እስከ 125 ሚ.ሜ የሚደርስ ከባድ መጠን ያለው ዝናብ በብዙ ጣቢዎች ላይ የተመዘገበ ሲሆን፤ ከ40 ሚ.ሜ በላይ ከባድ መጠን ያለው ዝናብ ከተመዘገበባቸው ስፍራዎች መካከል ለመዋቀስ ያህል በጎሬ 125.4፣ በአልጌ 40.0፣ በአርጆ 46.6 እና 40.2፣ በአሶሳ 42.3፣ በባቲ 52.0፣ በቻግኒ 63.2፣ በጨፋ 53.1፣ በኮምቦሌቻ 45.0፣ በድሬደዋ 98.7፣ በደባርቅ 58.8፣ በኢጃጂ 47.2፣ በ.ጋምቤሳ 109.0 እና 87.2፣ በጎንደር 42.7፣ በሳሊበሳ 65.4፣ በምዕራብ አባደ 66.0፣ በማጀቴ 59.9፣ በማሻ 40.2፣ በንጆ 47.1፣ በኑራኤራ 45.1፣ በሾላ ገቢያ 50.0፣ በስሪንቃ 62.5 እና 51.4፣ በሻውራ 54.3፣ በወረኢሉ 59.9፣ በሳሬ 50.5፣ በጊዳአያና 68.7፣ በጉንዶ መስቀል 52.8 እና 49.0 በወረኢሉ 60.9፣ በኢሊያ 65.2ና 36.7፣ በአቦቦ 40.0ና 40.2፣ በባህርዳር 48.8 እና 60.4፣ በዳንግላ 41.5፣ በቡሬ 70.6 እና 51.0፣ በጊንቢ 45.6፣ በላሬ 82.0፣ በፉኚዶ 49.0 እና 46.7፣ በሳዉላ 51.8፣ በማጇ 58.0 እና 53.0 እንዱሁም በዳሊፋጊ 48.2 በሚሜ የገኙባቸዋል፡፡ በዚህም ምክንያት የመሬት መንሽራተት፤ በተለያየ የእድነት ደረጃ ላይ ባሉ ሰብልች የአፈር ውስጥ እርጥበት መብዛትና ቅጽበታዊ ጎርፍ በተወሰኑ ቦታዎች በመከሰቱ በተያየ የእድነት ደረጃዎች ላይ ባለ ሰብሎች፣ በአፈር ጥበቃ ሥራ እንዲሁም በሰው እና በንብረት ላይ መጠነኛ ጉዳት ነበረው፡፡ የተሰበሰቡ መረጃዎች እንደሚያመለክቱት የነበረው ከባድ ዝናብ በአንዳንድ በሰሜን ምዕራብ፤ በመካከለኛዉና በምስራቅ የሀገሪቱ አካባቢዎች ላይ የመሬት መደርመስና የወንዞች መሙላት በመከሰቱ በሰብልች፤ በሰዎች እና በእንስሳት እንዲሁም በንብረት ላይ ጉዳት አድርሷል፡፡ በአጠቃላይ በዚህ ወር የተገኘው እርዋበት ቀደም ባሉት ጊዜ የእርዋበት እዋረት በነበረባቸው ቆሳማ የአገሪቱ አካባቢዎች ላይ ለሚኖሩት አርብቶ አደርና ከፊል አርብቶ አደሩ አካባቢዎች ለግጣሽ ሳርና ለመጠዋ ውሃ አቅርቦት ጥሩ አስተዋፅኦ **ነበረው ፡**፡

SUMMARY

AUGUST 2022

During the first dekad of August 2022, over large areas of Kiremt rain benefiting as well as Meher crop growing areas were continuously receiving enhanced moisture within the range of Moist to supper moist condition. In line with this, Amhara, Benshangul-Gumuze, western and central Oromia, SNNPR and southern high lands received heavy rainfall. Generally Tigray Amhara, Benshangul-Gumuze, western and central Oromia, southern high lands northern Somali, Harari and Dire dawa, Gambela and SNNPR, Sidama and south-western Ethiopia and Afar experienced slight to heavy rainfall. According to the weather report, many places across the country exhibited heavy fall in the range between (30 - 65.2) mm within 24hrs interval. This condition had been good enough to satisfy daily crop water requirement for various early planted Meher season crops including the long cycle crops such as maize and Sorghums. In general the wide distribution of rainfall across Kiremt rain benefiting areas could have a positive contribution toward enhancing the growth of early planted various crops as well as perennial plants. The enhanced moisture over the north eastern and the eastern pastoral and agro pastoral community might play crucial role toward improving the availability of pasture and drinking water as well as to regenerate natural and artificial ponds. On the other hand, areas which have been receiving rainfall in continuous manner 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 second dekad of August 2022, over large areas of Kiremt rain benefiting as well as Meher crop growing areas were continuously receiving enhanced moisture within the range of Moist to supper moist condition. In line with this, Tigray and Amhara, Benshangul-Gumuze, Most parts of Oromia, parts SNNPR, Gambela southern Afar, Dere dewa, northern Somali and Harari experienced slight to heavy rainfall. According to the weather report, many places across the country exhibited heavy fall greater than 30 mm within 24hrs interval. Among the reporting stations, more than 40mm rainfall recorded on Alge (40mm), Arjo (46.6 and 40.2), Asossa (42.3mm), Bati (50.2mm), Chagni (63.2mm), Chefa (53.1mm), Combolcha (45.0mm), Dere dewa (98.7mm), Debark (58.8mm), Ejaji (47.2mm), Gambela (109.0mm), Gonder (42.7mm), Lalibela (65.4mm), Mirab abay (66.0mm), Majete (59.9mm), Mash (40.2mm), Nedjo (47.1mm), Nura era (45.1), Shla gebeya (50.0mm), Sirinka (62.5mm and 51.4), Shaura (54.3mm), Werilu (59.9mm), Lare (50.5mm), Gidayana (68.7mm), Gundo meskel (52.8mm), and Dalifagi (48.2mm) received heavy fall in the range 30.0 to 109mm with a temporal time scale of 1 to 2 days. This condition had been good enough to satisfy daily crop water requirement for various early planted Meher season crops including the long cycle crops such as maize and Sorghums. In general the wide distribution of rainfall across Kiremt rain benefiting

areas could have a positive contribution toward enhancing the growth of early planted various crops as well as perennial plants. The enhanced moisture over the north eastern and the eastern pastoral and agro pastoral community might play crucial role toward improving the availability of pasture and drinking water as well as to regenerate natural and artificial ponds. On the other hand, areas which have been receiving rainfall in continuous manner 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 third dekade of August 2022, the weather events that create favourable conditions for Kiremt rain fall benefiting and Meher harvest crops parts of the country had better strength in amount and distribution, especially in the central, north eastern and eastern areas of the countries, This situation had a good contribution to meet the water needs of crops at different stages of growth. In addition to this, there was a significant contribution to the supply of drinking water and grazing grass for gardens, plant growth, pastoral and semi-pastoral areas. On the other hand, there was heavy rain in some areas of central, eastern & southern Gondar, and rain mixed with snow and wind in some areas, as a result of which flash floods and landslides occurred in some areas, causing minor damage to crops at different stages of development, soil conservation work, and people and property.

Generally during the month of August 2022, a meteorological weather phenomenon was strengthening in amount and coverage over most part of Kiremt rain benefiting and Meher growing areas of the country. In line with this, Tigray, Amhara, Benshangul-Gumuze, Gambela, SNNPR, Sidama, western and central Oromia, southern high lands, eastern parts of the country, Afar, Harer, Dire Dawa and northern Somali received slight to heavy rainfall. This situation could have a significant and positive contribution with respect to satisfying the water need of early sown long cycle crops (Maize, sorghum) which were at different phenological stages, late sown cereal crops like (Teff, wheat and barley), pulses (beans, peas and haricot beans) and oil seeds perennial plant as well as it improved pasture and drinking water availability over pastoral and agro pastoral areas of the country. On the other hand, during the month under review, extreme heavy fall were reported in many places from different weather stations in one rainy day over Gore 125.4, Alge 40, Arjo, 46.6 and 40.2, Assosa 42.3 mm, Bati 52.0 mm, Chagni 63.2 mm, Chefa 53.1 mm, Combolcha 45.0 mm, Dire dewa 98.7 mm, Debark 58.8 mm, Ejaji 47.2 mm, Gambella 109.0 and 87.2 mm, Gonder 42.7 mm, Lalibela 65.4 mm, Mirababay 66.0 mm, Majete 59.9 mm, Masha 40.2 mm, Nejo 47.1 mm, Nuraera 45.1 mm, Shola gebeya 50.0 mm, Sirinka 62.5 and 51.4 mm, Shawera 54.3 mm, Woreilu 59.9 mm, Lare 50.5 mm, Gidayana 68.7 mm, Gundomeskel 52.8 and 49.0 mm, Werilu 60.9 mm, Aliua 65.2 and 36.7 mm, Abobo 40.0 and 40.2 mm, Bahir dar 48.8 and 60.4 mm, Dangila 41.5 mm, Bure 70.6 and 51.0 mm,

Ginbi 45.6 mm, Lare 82.0 mm, Fungido 49.0 and 46.7 mm, Sawola 51.8 mm, Maji 58.0 and 53.0 mm, and Dalifagi 48.2 mm. The observed continuous and high humid moisture condition might have cause soil erosion and water logging particularly where land is sloppy and in areas where normally affected by excess moisture. The received heavy rainfall particularly over north western, central and eastern parts of the country it occurred flood and land slide cause of heavy fall, it affected crops, life and property.

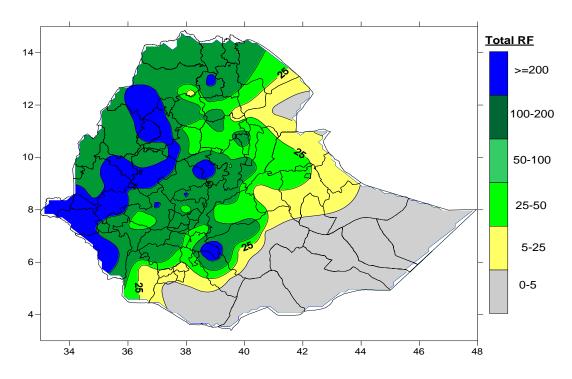


Fig 1. Rainfall distribution in mm (21-31) August 2022

1. WEATHER ASSESSMENT

1.1. Rainfall amount (21 – 31) August 2022

During the third Dekade of August 2022 south Tigray, W.Hemra, north Gonder, Bahir Dar, west aqnd east Gojam, Agew Awi, west and east Wellega, Kamashi, Illubabour, Gambela zone1, 2 &3, Sheka, Godere, Bench Maji, Gedeo and Guji were received 100-200mm Rain fall. West, east, north and south Tigray, Bahir Dar, west and east Gojam, north and south Gonder, Metekel, Assosa, Agew Awi, Tongo, west Wellega, north and south Wollo,north, east, west and south west Shewa, Addis Ababa zone, Sheka, Bench Maji, Keffa, Basketo, Godere, Dawero, Alaba, Hadiya, Jimma, YEM, Selti, Gurage and South Omo were received 50-100mm Rain fall. Afar zone 1,2,3,4 & 5, Harer, Arsi, Shinile, east and west Hararegie, Sidama and Hadiya received 25-50mm. Afar zone 1,2,3,4 & 5, Jigjiga, Fik, Degehabur, Konso, South Omo, Burji, Amaro and Borena received 5-25mm. The rest parts of the country received 0-5mm Rainfall.

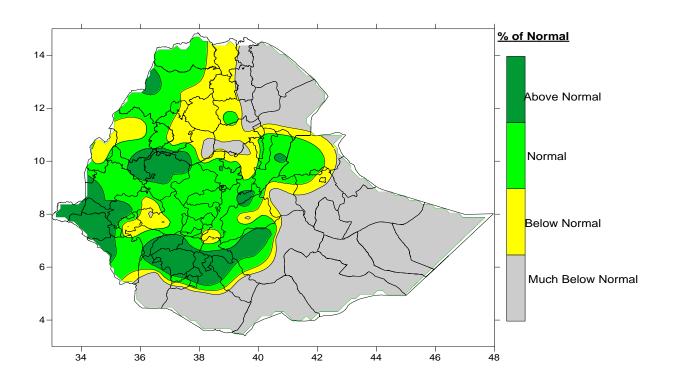


Fig. 2 Percent of normal rainfall distribution (21 – 31 August 2022)

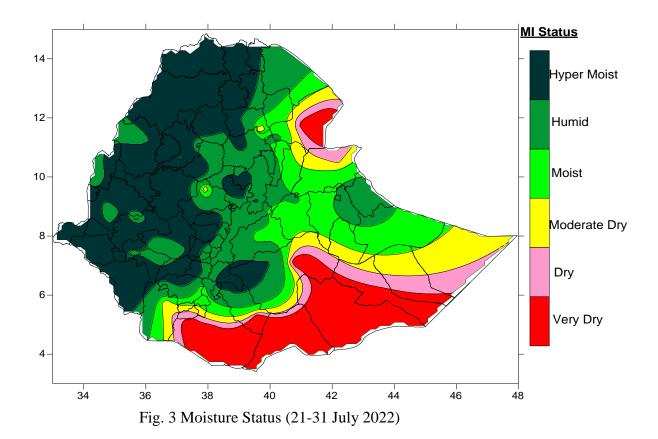
Explanatory notes for the Legend

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

> 125% - Above normal

1.2. Rainfall Anomaly (21 – 31 August 2022)

During the third Dekade of August 2022, west Tigray, north Gonder, Bahir Dar, west Gojam, Agew Awi, Kamashi, west and east Wellega, Gambela zone 1, 2 & 3, Godere, Benchy Maji, Keffa, Dawero, Wolayita, Gamo gofa, Wollo, north, east, west and south west Shewa, Addis Ababa zone, Sheka, Bench Maji, Keffa, Basketo and Shinile, exhibited Normal to Above Normal. The rest parts of the countries exhibited Below Normal too Much Below Normal.



1.3. Moisture status (21 – 31 August 2022)

During the third dekad of August 2022 pocket area of Shinile, Afar zone 1, South Omo, Dirashe, Konso, Amaro, Borena, Liben, Afder, Gode, Korahe and Warder exhibited moderately dry too Very dry. The rest parts of the countries exhibited Hyper Moist to Moist.

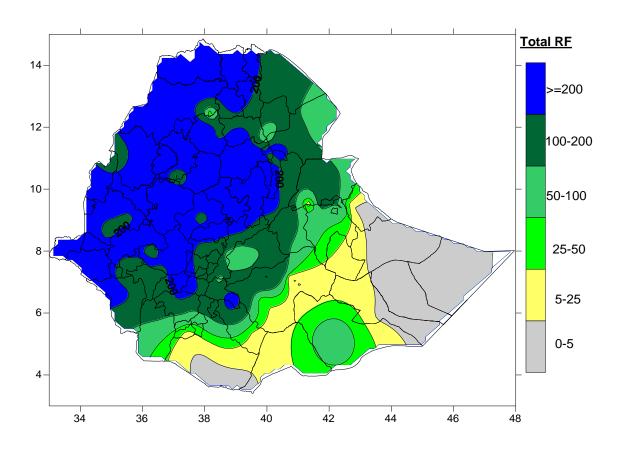


Fig. 4 Rainfall amount in mm for the month of August 2022

1.4. Rainfall amount on the month of August 2022

During the Month of August 2022 west, central, east and south Tigray, north and south Gonder, Bahir Dar, east Gojam, south Wollo, Assosa, Metekel, Kamashi, Tongo, west and east Wellega, Illubabur, Gambela zone 1, 2 & 3, Jimma, souith and west Shewa and Addis Ababa zone received >=200mm Rain fall. south Tigray, W.Hemra, Afar zone 1, 2, 3 & 4, Metekel, Sheka, Basketo, Gamo gofa, Dawero, Gedeo, Sidama, Hadiya, Alaba, Silti, Gurage, west Harergie, east Shewa, Arsi, Bale, Guji, South Omo, were received 100-200mm Rain fall. South Omo, Dirashe, east Hareegie, Harer, Guji, Afar zone Afder were received 50-100mm Rain fall. Afar zone 1,2,3,4 & 5, Harer, Arsi, Shinile, east and west Hararegie, Sidama and Hadiya Konso, Burji, Liben received 25-50mm. Amaro, Borena, Fik, Gode and Jigjiga received 5-25mm. The rest parts of the country received 0-5mm Rainfall

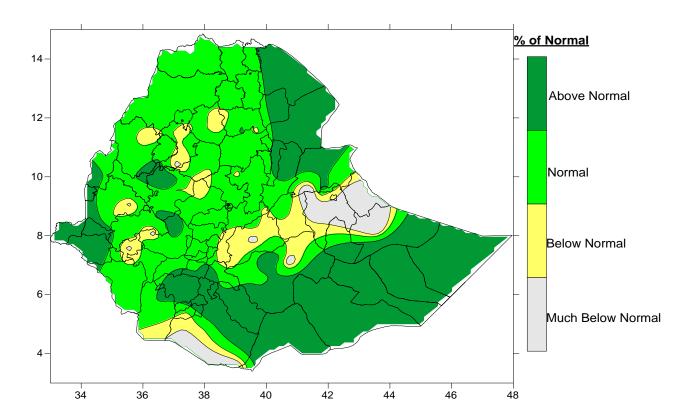


Fig. 5 Percent of Normal Rainfall for the month of August 2022

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 August 2022

During the month of August 2022 pocket area of west south Gonder, North Wollo, west and east Gojam, Bahir Dar, west Wellega, east Shewa, Illubabur, Sheka, Godere, Silte, Arsi, West and east Harergie, Fik, Degehabur Jigjiga, Konso, Amaro and Borean exhibited Below Normal too Much Below Normal. The rest parts of the countries exhibited Normal to Above Normal.

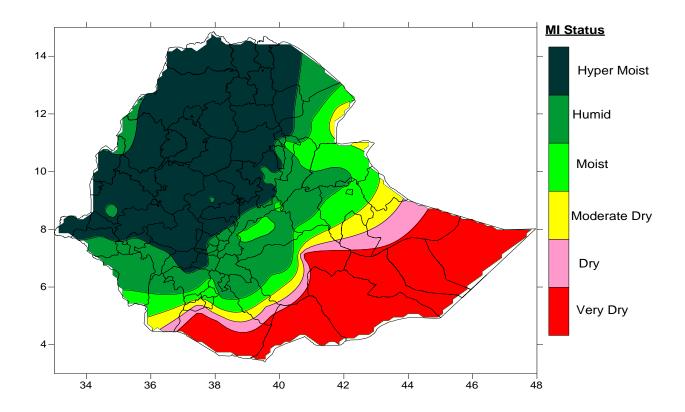


Fig. 6 moisture status for the month of August 2022

1.6. Moisture status on the month of August 2022

During the month of August 2022 pocket area of Afar zone 1, South Omo, Dirashe, Konso, Amaro, Borena, Liben, Afder, Gode, Korahe and Warder exhibited moderately dry too Very dry. The rest parts of the countries exhibited Hyper Moist to Moist.

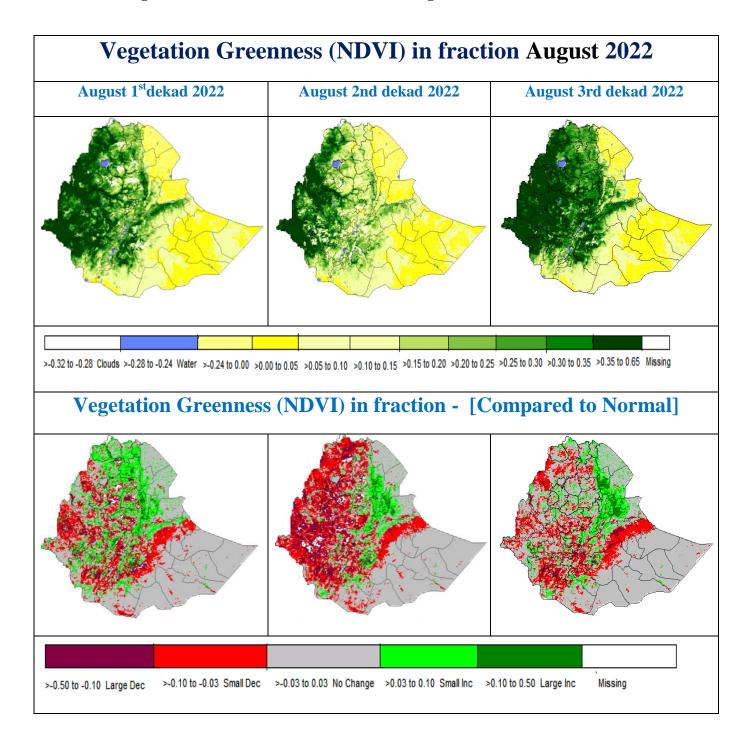


Fig.7 Vegetation Greenness (NDVI) in fraction and Compared to Normal August 2022

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

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

Generally during the month of August 2022, over large areas of Kiremt rain benefiting as well as Meher crop growing areas were continuously receiving enhanced moisture particularly in the first five days of the dekad received good moisture over central, western, north eastern parts of the country. Due to this the NDVI Fig.7 (the green plant coverage) increased most of Kiremt rainfall benefiting areas. This condition had been good enough to satisfy daily crop water requirement for various early planted Meher season crops including the long cycle crops such as maize and Sorghums and the expanded green plant coverage over the north eastern and the eastern pastoral and agro pastoral community might play crucial role toward improving the availability of pasture and drinking water as well as to regenerate natural and artificial ponds. On the other hand the observed continuous and high humid moisture condition might have cause soil erosion and water logging particularly where land is sloppy and in areas where normally affected by excess moisture. The received heavy rainfall particularly over north western, central and eastern parts of the country it occurred flood and land slide cause of heavy fall, it affected crops, life and property.

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

In the coming month of September 2022, the meteorological forecast information indicates that the seasonal rainfall activity is expected to continue over much of Meher and Kiremt rainfall benefiting area of the country. Particularly, the seasonal rainfall activity is expected to strength in amount and distribution over much of western, south western, central parts of the country. The situation will favour ongoing meher agricultural activities which are at different phenological stages in terms of crop water requirement such as water availability of perennial plants, long cycle meher crops which found at grain filling and maturity stage, sowing of pulses crops like chickpeas and lentils which planted using residual moisture at the end of the season and availability of pasture and drinking water over pastoral and agro pastoral areas of the aforementioned areas. Moreover, the expected moisture over low lands of southern Oromia which are climatologically dry in Kiremt season might play crucial role toward regenerating of pasture and drinking water and early sowing of crops in mid and high lands of the area. However, the expected above normal rainfall over some areas may result in heavy falls it might lead to generate flash floods which raise water levels across the river banks and overflow of rivers and dams. Thus, proper attention should be undertakento 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 moisture. Moreover, the expected 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 and in areas where erratic rainfall is anticipated there would be a possibility of pest outbreak since the expected weather condition is favourable for the event. Therefore, farmers are advised properly and regularly visit for monitoring their farm field in sensitive areas ahead of time to control the possible risk

3. <u>DEFNITION OF TERMS</u>

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.

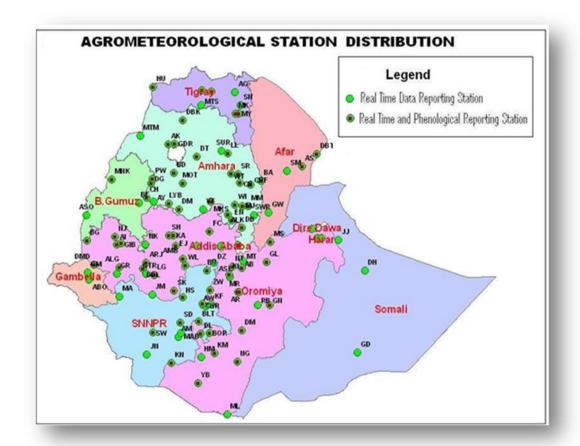
DEKAD: - First or second ten days or the remaining days of a month.

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