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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 ክረምት 2007

የክረምቱ ወቅት ዝናብ በሚያዚያና በግንቦት ወር ለሚዘሩት የረዥም ጊዜ ሰብሎች የውሃ ፍላጎት የሚኖረው አስተዋፅየ ከፍተኛ ሲሆን በበጋው ወቅት እድገታቸውን ለሚያጠናቅቁ የመኸር አዝርዕቶች ያለው ጠቀሜታ ከፍተኛ ነው። በተጨማሪ ከክረምቱ ዝናብ ባሻገር የበልግ ወቅት ዝናብ በተለይም በሚያዚያና በግንቦት ወር የሚኖረው የዝናብ መጠንም ሆነ በስርጭት ረገድ ለረዥም ገዜ ለሚደርሱ እንደ በቆሎና ማሽላ ላሉት አዝርዕቶች የዕድገት ሁኔታ አስተዋፅየ የጎላ ነው

እ.ኤ.አ በጁን 2007 መኸር አብቃይ የሆኑት የሀገሪቱ መዕራባዊ አጋማሽ ላይ ታይቶ የነበረው ጥሩ የሆነ የእርጥበት ሁኔታ (humid to moisture status) በተለያዩ እድገት ላይ የሚገኙ የመኸር አዝርዕቶች የውሃ ፍላጎት በጎ ጎን ነበርው። በተጨማሪም የዕርጥበት ሁኔታ በዚህ ሁኔታ የዘር ጊዜያቸው ስለሆነ እንደ ስንዴና ገብስ ላሉት አዝርዕቶች እንዲሁም ለመካከለኛው ኢትዮጵያ፣ በምዕራብ አርሲና ዘጬ ዞን ከፍተኛ ቦታዎች አካባቢ በማሳ ላይ ተዘርተው ላሉ አዝርዕቶች ከፍተኛ አስተዋፅየ ነበረው። ይሁን እንጂ በምዕራብና በመካከለኛው ኢትዮጵያ ላይ ከበድ ያለ ዝናብ በአዝርዕቱ ላይ ጉዳት አስከትሎ ነበር። ለዋቢነት ለመጥቀስ ያህል በበደሌ በቆሎና በማሽላ ሰብል ማሳ ላይ በሻሁላ በዛፎችና በበቆሎ ሰብል ላይ በአይከል በቆሎና በድንች ማሳ ላይ በኮንሶ እየታጨዱ ባሉ አዝርዕቶች ላይ፣ በአርፋይዱ በዛፎችና በደረሱ የማሽላ አዝርዕታት ላይ በፓዊና በደብረታቦር ገና በማግ ላይ ላሉ አዝርዕቶች እንዲሁም በጂንካ ሰብልና በእንስሳት ላይ ጉዳት ማስከተሉ ከአዝርዕቱ መረጃ ክፍላችን ለማወቅ ተችሏል።

እ.ኤ.አ በጁላይ 2007 የነበረው ጥሩ የእርጥበት ሁኔታ (humid moisture status) አብዛኛው የሀገሪቱን መኸር አብቃይ አከባቢዎችን ያደረሰ ነበር። ይህም ጥሩ የሆነ የዕርጥበት ሁኔታ ለመኸር አዝርዕትም ሆነ በአካባቢው ለሚገኙ ቋሚ ሰብሎች ጤናማ እድገትና ልምላሜ እንደሆን ለግጦሽ ሳርና ለውሃ አቅርቦት በጎ ጎን ነበረው። ወቅታዊው ዝናብ በአብዛኛው የሀገሪቱ ክፍሎች ከደቡብ ምሥራቅ ኢትዮጵያ አካባቢዎች በስተቀር በተጠናከረ መልኩ ቀጥሎ ነበር የተስተዋለው። ይህም የዝናብ ሁኔታ ቀደም ሲል ከሰኔ በፊት ለተዘሩ የረጅም ጊዜ ሰብሎች እንደ በቆሎ ማሽላ ላሉት ምቹ ሁኔታን ከመፍጠሩም በላይ ለብርዕ ሰብሎች ስንዴ፣ ገብስ፣ አጃ ለመሳሰሉት የዘር ጊዜና በቡቃያ ላይ ላሉት እንዲሁም ለጥራጥሬ እህሎች በጎ ጎን እንደሚኖረው ይታመናል። ይሁንና በአንዳንድ አካባቢዎች ላይ ጠንከር ብሎ የታየው (30-102.5 ሚ.ሜ) የደረሰ ከባድ ዝናብ በአንድ የዝናብ ቀናት ብቻ ተመዝግቧል። ከ50 ሚ.ሜ በላይ ያሉትን ለመጥቀስ ያህል ዱቡቲ፣ እነዋሪ፣ ማይፀምሪ፣ ሲሪንቃ፣ ማጀቴ፣ ማንኩሽ፣ ባህርዳር፣ ኮምቦልቻ፣ አርጆ፣ አሶሳ፣ አይከል፣ ባቲ፣ ቻግኒ፣ ጨፋ፣ አደዋ፣ ነጆ፣ ፓዌ እና ሰንቃጣ 58.6፣ 51.3፣ 59.5፣ 59.0፣ 53.0፣ 73.2፣ 57.7፣ 54.3፣ 58.3፣ 102.5፣ 51.3፣ 59.6፣ 55.5፣ 66.3፣ 68.2፣ 55.2፣ 56.6፣ 55.3 እንደየቅደም ተከተላቸው በአንድ የዝናብ ቀናት ብቻ ተመዝግቦባቸዋል። ምንም እንኳን ከመረጃ ክፍላችን ካለይ በተጠቀሰው ከባድ ዝናብ ምክንያት በደረሰን ሪፖርት በመሀል ሜዳ ጣቢያ ላይ ብቻ በ05/07/07 የጣለው ከፍተኛ ዝናብ ጎርፍ በማስከተሉ በተዘሩ በባቄላና ገብስ ሰብሎች ላይ ከፍተኛ ጉዳት ቢያስከትልም ለተከታታይ ጊዚያት ካለመቋረጥ ሲዘንብ የነበረው ከፍተኛ ዝናብ በአንዳንድ ተዳፋትና በወንዝ ዳርቻ ላይ በሚገኙ የእርሻ ማሳዎች ላይ ጉዳት ሊያደርስ እንደሚችል ይታመናል።

እ.ኤ.አ በኦገስት 2007 የነበረው ዝናብ መካከለኛውን ኢትዮጵያ ጨምሮ በሀገሪቱ ሰሜናዊ አጋማሽ ላይ የተሻለ ስርጭትና መጠን የነበረው ሲሆን በክረምት ወራት ዝናብ ማግኘት በማይጠበቅባቸው የደቡብ የሀገሪቱ አካባቢዎች ላይም ተስፋፍቶ እንደነበር ነው የተስተዋለው። ይህም የዝናብ ስርጭት ሁኔታ በብዙ አካባቢዎች ተዘርተው በተለያየ የዕድገት ደረጃ ላይ ለሚገኙ አዝርዕቶች የወሃ ፍላጎት እንዲሁም በወሩ ውስጥ የዘር ጊዜ ለተካሄደባቸው አካባቢዎች እንደ ባሌ ፣ ሲዳማ ፣ ከምባታ፣ ጠምባሮና ዋግህምራ የመሳሰሉት የስንዴ ፣ የገብስ ፣ የጤፍ ፣ በቆሎና የባቄላ የዘር ጊዜ የሚካሄድባቸው

ስለሆነ የተገኘው ዝናብ በአካባቢዎቹ ለተዘሩት አዝርዕቶች በጎ ጎን ይኖረዋል በተጨማሪም በወሩ ሁለተኛ አስርተ ቀናትና ሶስተኛ አስርተ ቀናት ላይ የዝናቡ ስርጭት ወደ ደቡብ የሀገሪቱ ክፍሎች ላይ ተስፋፍቶ መስተዋሉ በስፍራው ለሚኖሩ የአርብቶ አደሩና ከፊል አርበቶ አደሩ አካባቢ ለውሃ አቅርቦትና በአካባቢው ለሚበቅሉ የግጦሽ ሳር እንዲሁም ለቋሚ ሰብሎች ከፍተኛ አስተዋፅኦ እንደሚኖረው እሙን ነው ። ይሁን እንጂ በወሩ ውስጥ በአንዳንድ የሀገሪቱ ምዕራብ ፣ ደቡብ ምዕራብ ፣ ሰሜን ምስራቅ እነዲሁም በመካከለኛው ኢትዮጵያ አካባቢዎች ከበድ ያለ ዝናብ መጠኑም ከ30-117 ሚሜ የሚደርስ ከባድ ዝናብ በአንድ የዝናብ ቀን ብቻ መዝግበው ነበር። ከከባድ ዝናብ ጋር ተያይዞ በጊምቢ ሀይለኛ ንፋስ ቀላቅሎ የጣለው ዝናብ በበቆሎና በዘንጋዳ ሰብል ላይ በአርጆ በገብስና በባቄላ ሰብል ከፍተኛ ጉዳት ያደረሰ ሲሆን በአይራ በጎርፍ ምክንያት የመሬት መሸርሸር እንደደረሰ ከአዝርዕት መረጃ ከፍላችን ለማወቅ ተችሏል።

የእርጥበት አመልካች ትንተና ማለትም የዝናብ መጠን ሲካፈል ለትነት እንደሚያሳየው እ.ኤ.አ ኦገስት 2007 የነበረው የአየር ጠባይ በማበብ ላይ ላሉ ሰብሎች ምቹ እንደነበረ ያስገነዝባል ።

ወቅታዊ ዝናብ በሴፕቴምበር በአብዛኛው የክረምት ዝናብ ተጠቃሚ አካባቢዎች በሆኑት የአገሪቱ ሰሜናዊ አጋማሽ ፣ መካከለኛውና ምስራቅ ኢትዮጵያ ላይ የተስፋፋ ዝናብ ያገኙ ሲሆን በደቡብና ደቡብ ምስራቅ የአገሪቱ ክፍሎች ላይም መጠነኛ ዝናብ ነበራቸው ይኸም ሁኔታ ለመኸር እርሻ እንቅስቃሴና ወቅታዊ ዝናብ ማግኘት በጀመሩት በደቡብና ደቡብ ምስራቅ የአገሪቱ ክፍሎች አካባቢላይ ለእርሻ ስራ እንቅስቃሴና በአካባቢው ለሚኖሩት አርብቶ አደርና ከፊል አርብቶ አደርለግጦሽ ሣርና ለመጠጥ ውሀ አቅርቦት ጥሩ አስተዋጽዕ እንደነበረው ይገመታል። በአጠቃላይ በሴፕቴምበር ወር በጋምቤላ ፣ በምዕራብና ምስራቅ ኦሮሚያ ፣ በአፋር ደቡባዊ ክፍል የደቡብ ብሄር ብሄረሰቦችና ህዝቦች ክልልና አጎራባች ደቡብ ኦሮሚያ አካባቢዎች ፣ መካከለኛው ኢትዮጵያ ፣ በትግራይ ምዕራባዊ አጋማሽ ፣ የምስራቅ ትግራይና አማራ እንዲሁም የቤኒሻንጉል ጉሙዝ አጎራባች የምዕራብ አማራ ኪስ ቦታዎች ከመደበኛ በላይ የሆነ ዝናብ የታየ ሲሆን በአንፃሩም ቀሪዎቹ የትግራይ ፣ የአማራ ፣ የአፋር ፣ የሶማሊና የደቡብ ኦሮሚያ አካባቢዎች መደበኛ የሆነ ዝናብ ለመኸር እርሻ እንቅስቃሴ በጎ ጎን የነበራቸው ሲሆን ከከባድ ዝናብ ጋር በተያያዘ በአንዳንድ የአገሪቱ ክፍሎች በእርሻ ማሣ ላይ የውሃ ሙተኛት ችግር አስከትሏል። እንዲሁም ከአየር ፀባይ መዋዠቅ ጋር በተያያዘ በአሶሳ በተለያዩ የመኸር ሰብሎች ላይ በሽታ መከሰቱን እንደታዩ ከሥፍራው የደረሱን መረጃዎቻችን ይጠቁሟል። ሆኖም በሶማሊ ደቡባዊ ክፍል አጎራባች የደቡብ ኦሮሚያ ኪስ ቦታዎች ከመደበኛ ያነሰ ዝናብ በአካባቢው ለሚኖሩት አርብቶ አደርና ከፊል አርብቶ አደርለግጦሽ ሣርና ለመጠጥ ውሀ አቅርቦት አሉታዊ ተፅዕኖ እንደነበረው ይገመታል።

ጠቅለል ባለ መልኩ ሲታይ በክረምት 2007 የነበረው የተስፋፋውና ጥሩ የሆነ የአፈር እርጥበት ሁኔታ እየተካሄደ በነበረው የእርሻ እንቅስቃሴ እንዲሁም በአርብቶ አደሩና ከፊል አርብቶ አደር አከባቢ የግጦሽ ሳርና የውሃ አቅርቦት በጎ ጎን ነበረው።

በተጨማሪም ባለፈው ክረምት በሱዳንና የመን አጎራባች አገሮች በነበረው ከፍተኛ እርጥበት ሳቢያ የበረሃ አንበጣ ተከስቶ ነበር ። በአየር እንቅስቃሴ ጋር በተያያዘ የነፋስን አቅጣጫ ተከትሎ በሰሜን ምዕራብና በምስራቅ ኢትዮጵያ አካባቢ ገብቶ ጉዳት ሊያድርስ ስለሚችል አስፈላጊው ክትትል እንዲደረግ እናሳስባለን ።

KIREMT 2007

SUMMARY

Kiremt is the season that fulfills the water requirement of long cycle crops that are planted in the months of April- May and Meher crops that achieve maturity during the Bega season. In addition to the Kiremt season rain, the Belg season rainfall particularly the rainfall amount and distribution during the months of April and May has significant impact on the performance of long cycle crops (maize and sorghum).

During the month of June 2007, humid to moist moisture condition dominated western half of the country of Meher growing areas. The moisture status observed over most Meher growing areas could fulfill the water demands of different crops at different phases of their developments. Thus, this rainfall situation could have significant contribution for sowing activities of crops like wheat, barely and for the existing crops which are at different phenological stages found in areas like central Ethiopia western and highlands of Arsi and Bale zone. However, heavy fall resulted in crop damage over parts of western and central Ethiopia: Bedelle reported Damage on Maize and Sorghum crop field, Shahura exhibited damage on maize and trees, Aykel reported damage on maize and Potato crop field, Konso reported damage on the ongoing harvested crops, Arfidae reported damage on teff and sorghum which are at ripeness stage, Pawe and Debre Tabor reported damage on crops which are at early vegetative stage and Jinka reported damage on crops and Livestock due to heavy fall.

During the month of July 2007, humid moisture condition dominated most Meher growing areas of the country. The situation was conducive for growth and development of Meher & perennial crops and availability of pasture and water as a result favored early planted long cycle crops, cereals & pulses at different phase of development. The seasonal rain continued over most parts of the country with the exception of southeastern Ethiopia as result favored early-planted long cycle crops, cereals & pulses at different phase of development. Most of the stations reported heavy falls in the range of 30 to 102.5 mm in one rainy day. Some stations reported rainfall that exceed 50 mm: Dubti, Enewary, Maytsemri, Sirinka, Majete, Mankush, Bahir Dar, Combolcha, Arjo, Assosa, Aykel, Bati Chagni, Cheffa, Adwa, Nejo, Pawe and Senkata recorded 58.6, 51.3, 59.5, 59.0, 53.0, 73.2, 57.7, 54.3, 58.3, 102.5, 51.3, 59.6, 55.5, 66.3, 68.2, 55.2, 56.6 and 55.3 mm respectively. However, as reported heavy fall caused damage on Bean and Barley crops over Mehal Meda, besides, heavy and continuous rainfall over different parts of the country might have affected agricultural activities due to flooding over steep slope areas and at banks of rivers.

During the month of August 2007, humid moisture condition and normal to above normal monthly rainfall experienced most Meher growing areas of the country. The situation in general might have benefited Meher agricultural activities. Besides better moisture condition over northern half of the country including central Ethiopia and areas which are not supposed to get rainfall during the season like southern parts of the country, the situation could have a positive impact on crops' water requirement which is found at different phenological stages. Besides, it could also have a significant contribution for areas which are through their sowing activity like Bale, Sidama, Kembata, Tembaro and Waghimra (wheat, barley, teff, maize and bean).

Moreover, the observed widely distributed rainfall during the second and the third dekads of the month could have a positive contribution for the availability of pasture and drinking water over pastoral and agro pastoral areas. Nevertheless, some part of the country like western, southwestern, northeastern and central Ethiopia recorded heavy fall resulted in crop damage. Gimbi reported crop damage on maize and millet; Arjo on barley and bean and Aira reported landslide due to this heavy fall.

During the month of September 2007, the seasonal rainfall was intensive over the Kiremt rain benefiting areas of northern half of the country, central and eastern Ethiopia. The situation might have a positive contribution for Meher agricultural activities. Besides, the received rainfall over southern and southeastern parts of the country might have favored the availability of positive and drinking water for pastoral and agro pastoral areas as well as the agricultural activities. Moreover, the observed normal to above normal monthly rainfall over Gambela, western and eastern Oromiya, southern Afar, SNNPR and the adjoining areas of southern Oromiya, central Ethiopia, western half of Tigray, eastern Tigray and Amhara, as well as adjoining areas of Benshangul Gumuz and pocket areas of Amhara was conducive for the on going Meher agricultural activities though the general agricultural activities over the rest of Tigray, Amhara, afar, southern portions of Somali and Oromia might have faced moisture stress. However, heavy falls caused water logging on croplands over some Meher growing areas and due to weather fluctuation caused pest and disease on Meher crops. On the other hand, the observed below normal monthly rainfall over adjoining areas of southern Somalia, pocket areas of southern Oromiya might have a negative impact on the availability of pasture and drinking water over postoral and agro pastoral areas in the aforementioned areas.

In general during Kiremt 2007, the observed widely distributed rainfall with conducive moisture condition throughout all months benefited the on going Meher agricultural activities, for the availability of pasture and drinking water over pastoral and agro pastoral areas.

In view of the development of desert locust in the neighboring countries of Ethiopia, over eastern Sudan and northern Somalia, it is important to pay attention for close monitoring and control operations over eastern and northwestern parts of the country.

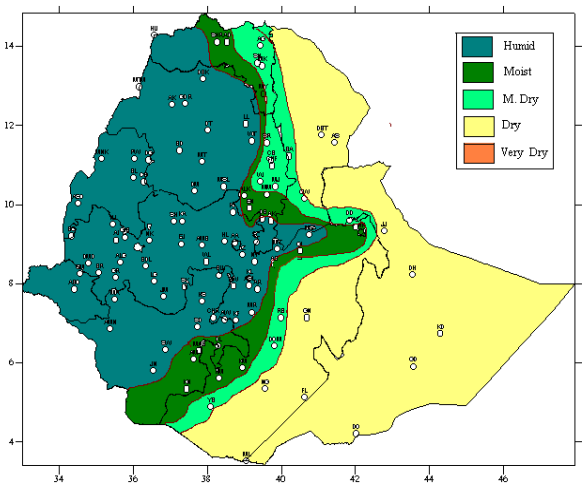


Figure 1. Moisture status for the month of June 2007

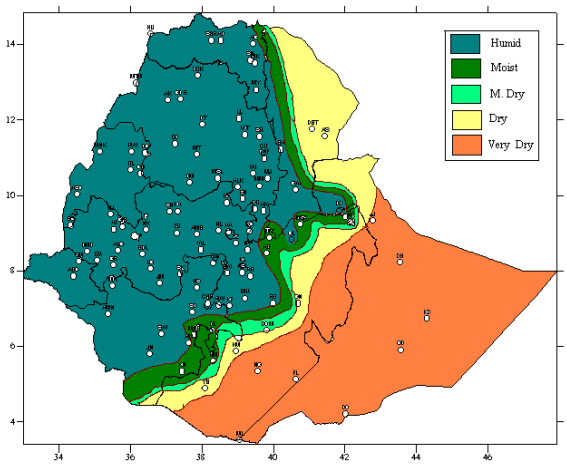


Figure 2. Moisture status for the month of July 2007

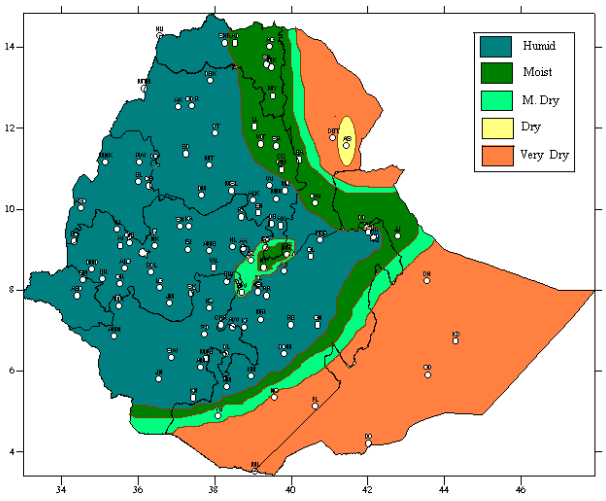


Figure 3. Moisture status for the month of August 2007

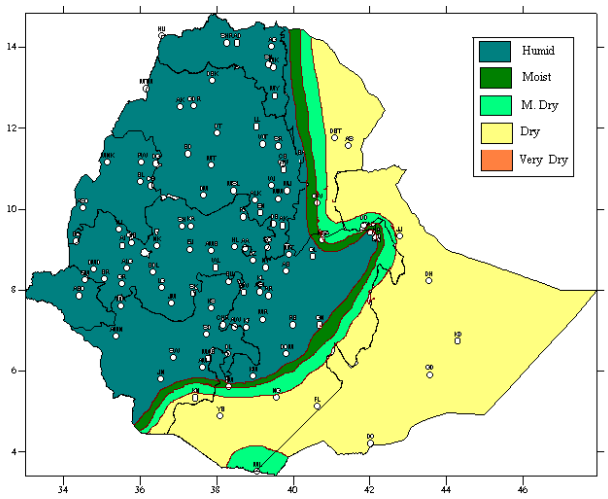


Figure 4. Moisture status for the month of September

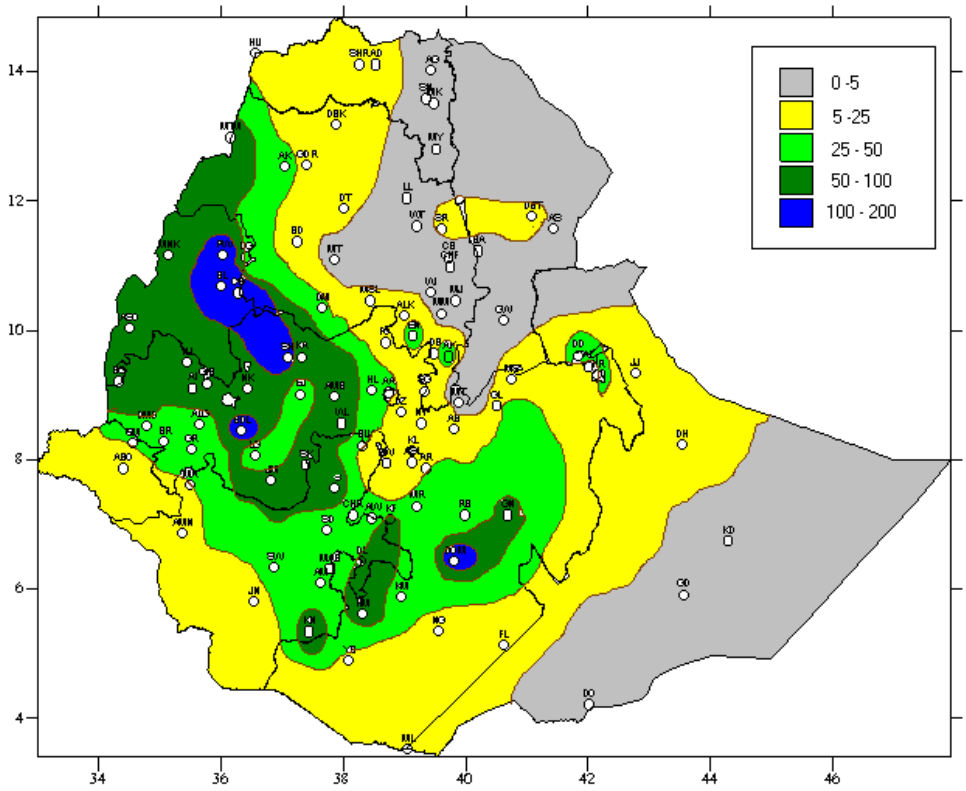


Fig. 6. Rainfall distribution in mm (21-31 September 2007)

1. WEATHER ASSESSMENT

1.1 September 21-31, 2007

1.1.1 Rainfall Amount (Fig 6)

Parts of eastern Benishangul Gumuz, western and pocket areas of southern Oromia received 100-200 mm rainfall. Most of Beshangul-Gumuz, parts of western and southern Oromia, parts of northwestern Amhara and pocket areas of SNNPR received 50-100mm rainfall. Eastern half of SNNPR, parts of western, central & southern Amhara and central, western & southern Oromia received 25-50 mm rainfall. Gambella, much of Tigray & Amhara, western half of SNNPR, northern half of Somali and parts of central, eastern & southern Oromia received 5-25 mm rainfall. The rest parts of the country exhibited little or no rainfall.

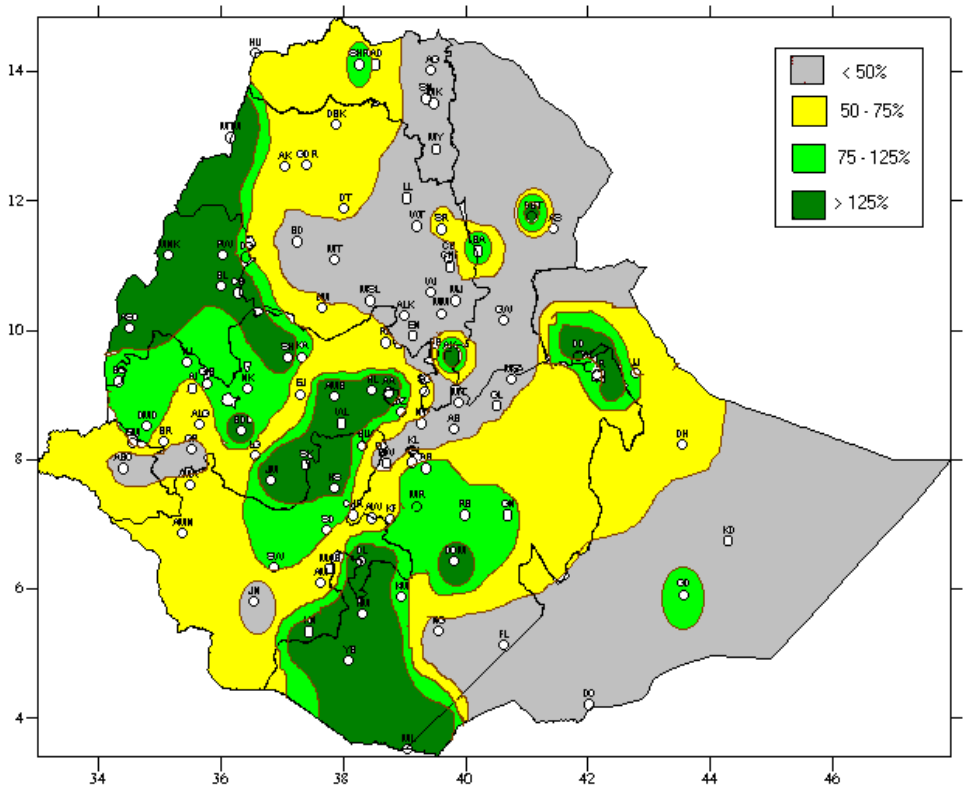


Fig. 7 Percent of normal (21-31 September 2007)

Explanatory notes for the Legend:
< 50-Much below normal
50-75%-Below normal
75-125%- Normal
> 125% - Above normal

1.1.2 **Rainfall Anomaly (Fig 7)**

Beshangul-Gumuz, parts of northern SNNPR & northwestern Amhara, part of western and southern Oromia, northern and pocket areas of southern Somali, pocket areas of central Afar, southern & eastern Amhara and pocket areas of Tigray received normal to above normal rainfall. The rest parts of the country exhibited below normal to much below normal rainfall.

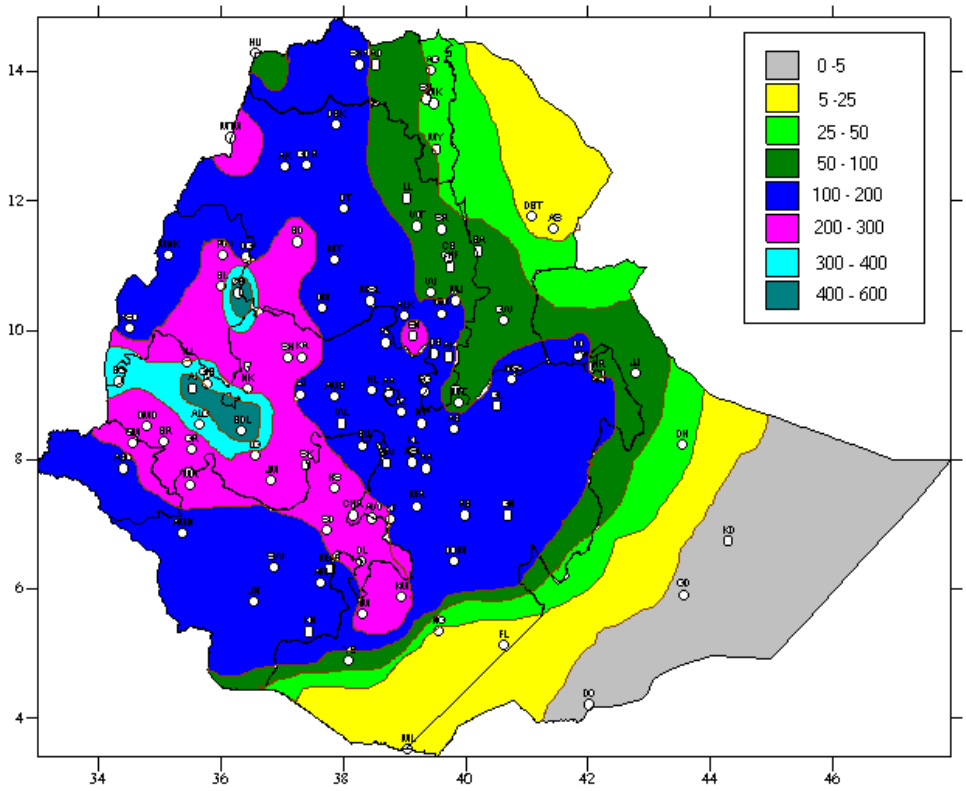


Fig. 8 Rainfall Distribution in mm for the month of September 2007

1.2 September 2007

1.2.1 Rainfall Amount (Fig. 8)

Parts of western Oromia and parts of eastern Benishangul Gumuz received 400-600 mm rainfall. Most part of western Oromia and eastern Benishangul Gumuz received 300-400 mm rainfall. Parts of eastern half of SNNRP, southern half of Benishangul Gumuz, parts of southern and northwestern Amhara, northern Gambela, parts of western and southern Oromia received 200-300 mm rainfall. Most of Amhara, SNNPR, Gambella & Oromia and western half of Tigray & Benishangul Gumuz received 100-200 mm rainfall. Parts of eastern Tigray & Amhara, southern Afar, northern Somali and pocket areas of western Tigray and eastern Oromia received 50-100 mm rainfall. Northwestern Afar, northern tip & parts of central Somali and parts of southern Oromia received 25-50 mm rainfall. Southern Oromia, central & southern Somali and Afar received 5-25 mm rainfall The rest parts of the country received little or no rainfall.

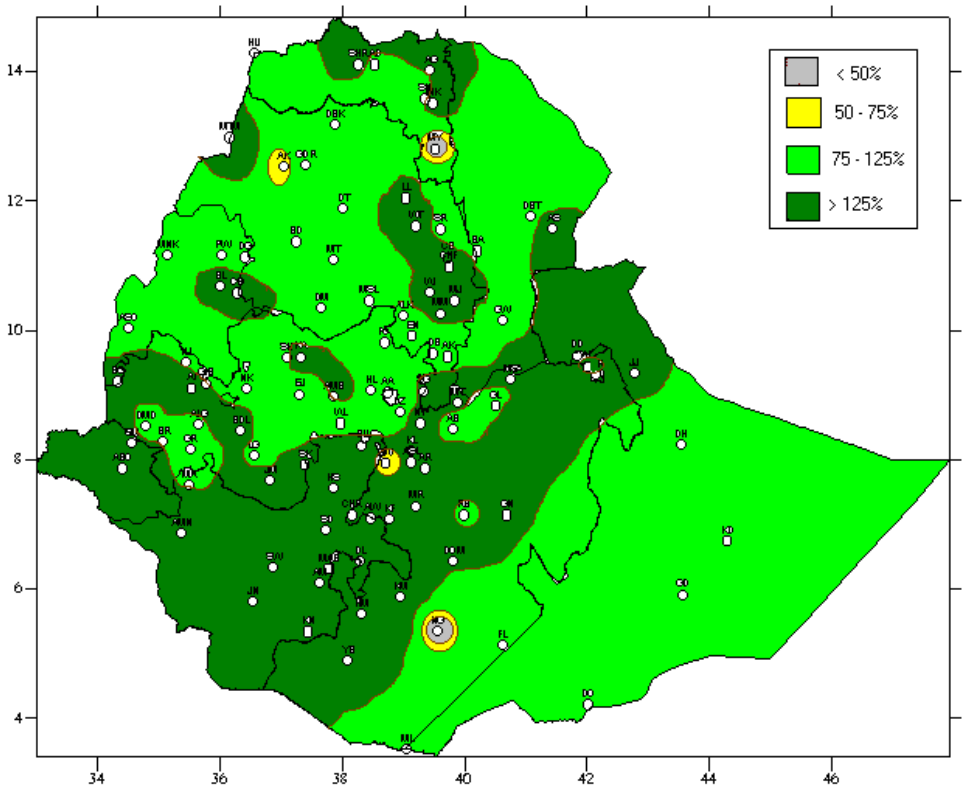


Fig. 9 Percent of Normal Rainfall for the month of September 2007

Explanatory notes for the Legend:
< 50 -Much below normal
50-75%-Below normal
75-125%- Normal
> 125% - Above normal

1.2.2 Rainfall Anomaly (Fig. 9)

Except few pocket areas of central & southern Oromia, northwestern Amhara and southern Tigray most parts of Meher growing and Kiremt rain benefiting areas of the country received normal to above normal rainfall.

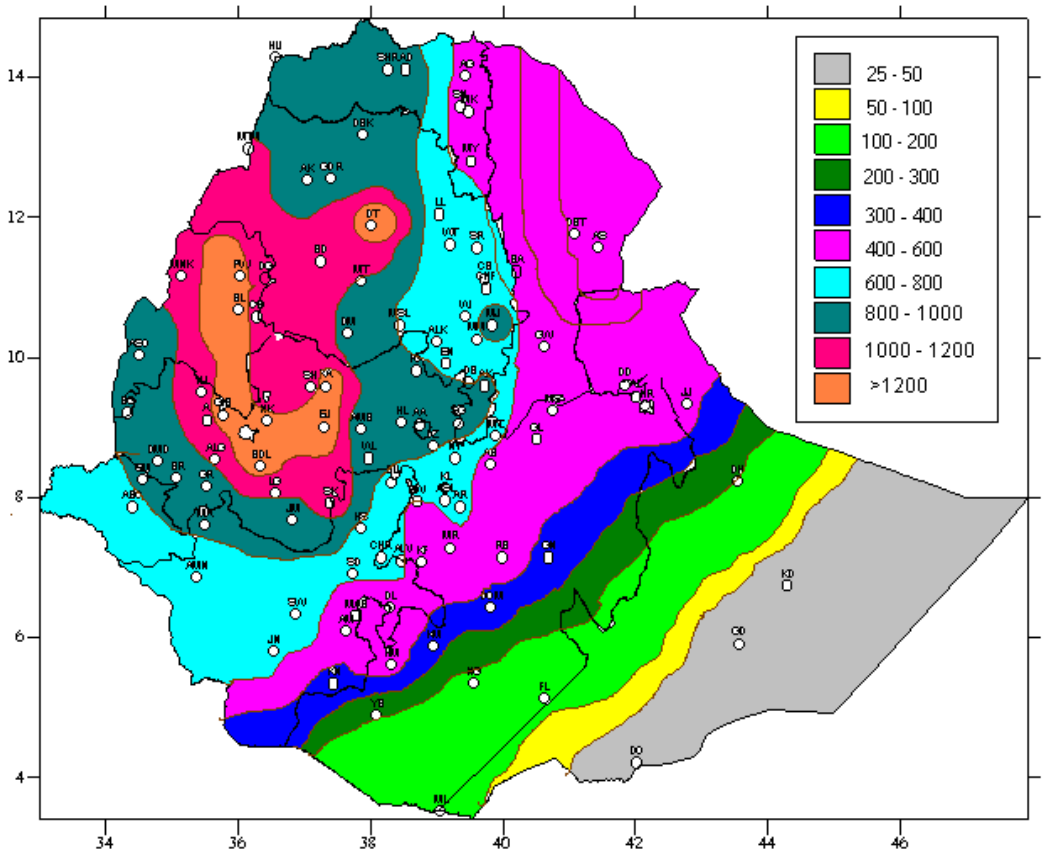


Fig. 10 Rainfall Distribution in mm for Kiremt 2007

1.3 Kiremt 2007

1.3.1 Rainfall Amount (Fig. 10)

Parts of Benishangul Gumuz and western Oromia and pocket areas of Amhara received more than 1200 mm rainfall. Parts of central, southern & western Amhara, Benishangul Gumuz and western Oromia received 1000-1200 mm rainfall. Western half of Tigray, parts of northern & southern Amhara, central & western Oromia, northeastern tip of Gambella and western Benishangul Gumuz received 800-1000 mm rainfall. Much of Gambella & SNNPR, parts of eastern half of Amhara & central Tigray and parts of central Oromia received 600-800 mm rainfall. Afar, northern Somali, parts of central, eastern & southern Oromia and southern SNNPR received 400-600 mm rainfall. Parts of northern Somali, central, eastern & southern Oromia and southern SNNPR received 300-400 mm rainfall. Parts of northern Somali, central, eastern & southern Oromia and southern SNNPR received 200-300 mm rainfall. Southern Oromia, central and parts of southern Somali received 100-200 mm rainfall. Southern Somali received 50-100 mm rainfall. The rest part of the country received 25-50 mm rainfall.

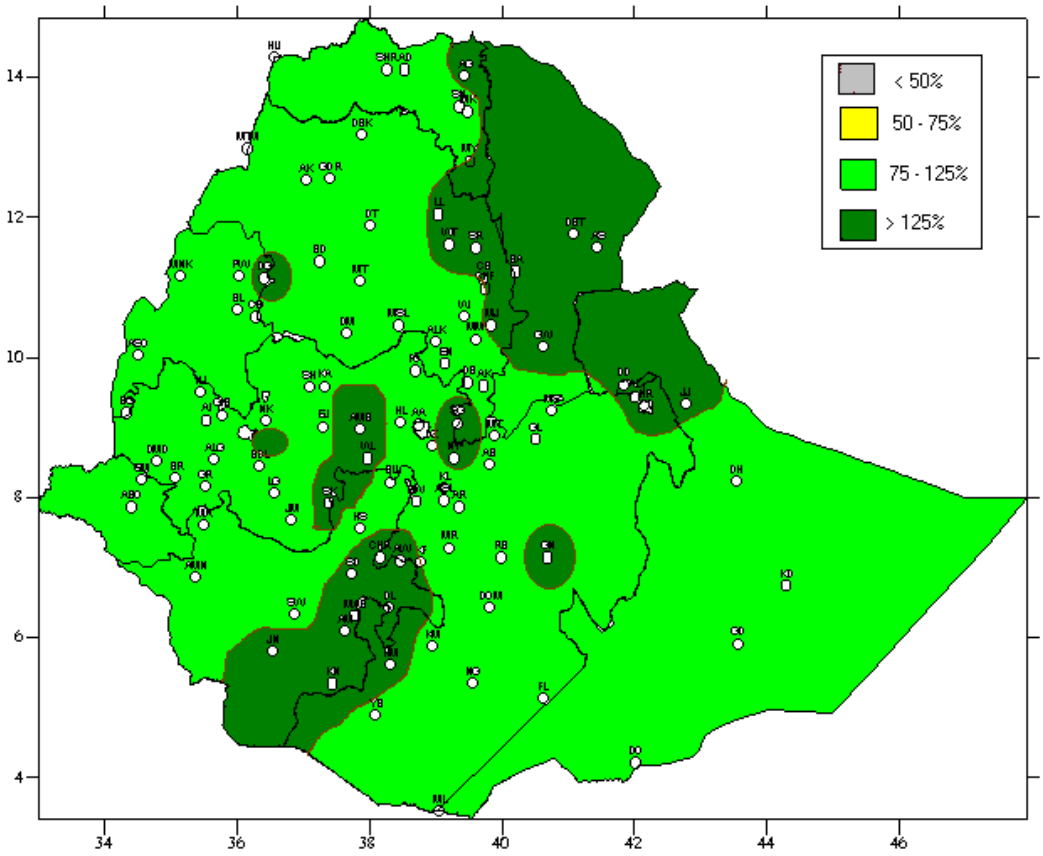


Fig. 11 Percent of Normal Rainfall for Kiremt 2007

Explanatory notes for the Legend:
< 50 -Much below normal
50-75%-Below normal
75-125%- Normal
> 125% - Above normal

1.3.2 Rainfall Anomaly (Fig. 11)

All parts of the country, Meher growing and Kiremt rain benefiting areas of the country received normal to above normal rainfall.

1.4 TEMPERATURE ANOMALY

Some stations recorded extreme maximum temperature 35^{o} C and above during the season under review. Assayta, Dubti, Elidar, Gode and Dire Dawa recorded extreme maximum temperature exceeding 35.0 ^{o} C.

2. WEATHER OUTLOOK

2.1 For the first dekad of October 2007

Rain - producing systems are still getting substantial energies to favor the continuation of high to moderate rains across the nation. In line with this, there will be rain all over the country though the rainfall pattern will be more widely distributed over western half, central and southern portions of the country. In term of rainfall amount, western Amhara, Benishangul Gumuz, much of Oromiya, SNNPR, Gambella and Somali are expected to get normal to above normal rains. Besides, some portions of Tigray, east Amhara, southern Afar, eastern margin of Oromiya and the adjoining regions will half near normal rain. Also occasional heavy rains will accord at pocket places of central, western, southern and southwestern regions.

2.2 For the month of October 2007

October is generally considered as drier month than the preceding Kiremt seasons mainly aver northeast, central and eastern regions. In contrast, south and southeast Ethiopia receive the maximum rains of the Bega seasons.
The current weather systems that are prevailing in the Atmosphere are likely to be in the position of favoring wetter October over the Kiremt rain benefiting regions as well as southern Ethiopia. In line with normal to above normal rains are forecasted across Tigray, Amhara, Benishangul Gumuz, Oromiya, SNNPR and Gambella. Moreover, near normal rains are expected over southern Afar, Somali and the adjusting east Ethiopia. Heavy rains are likely to occur over some places of central, northwest, west, southwest and south Ethiopia.

2.3 For the Bega season, 2007/8

Bega is generally considered as dry season over Ethiopia although it used to the second rainy season over south and southeast regions. Under normal circumstances, most of the county experiences dry days throughout December-January while occasional rain seldom occurs at few localities. In contrast as Bega Season begins after long rainy Season the rain becomes relatively better in October over central, northern and eastern regions.

The current global and regional weather systems entail that the no going wet condition is likely to continuing throughout the month of October. In particular, there will be good rains over western, central, southwestern, southern and southeastern regions. Moreover, there will be a chance of unseasonal rains that occasionally occur over Bega normally the dry seasons. In association with this, frost is less likes to occur throughout the Bega season.

Generally in the coming Bega season normal to above normal rain is predicted over western sector of Tigray, Amhara, Benishangul Gumuz, SNNPR, central Oromiya and southern highlands of the country. Besides, near normal rains is most likely over southern Somali and Oromia, Gambella and western Oromia regions. In fact, occasional rains are expected to produce near normal rains over eastern Tigray and Amhara, Afar and eastern sectors of Ethiopia .

3. AGROMETEOROLOGICAL CONDTIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE DURING KIREMT 2007

During Kiremt 2007 the general moisture condition over Meher growing areas were conducive in fulfilling the water requirements of Meher crops that are found at different phenological phases. Pursuant to crop phenological report, Please see table1. for detailed information. Heavy falls caused water logging on Teff over Arsi Robe and Shire. Weed infestation on Barley over Mehal Meda. Crop diseases caused severe damage on sorghum in Assosa, severe damage on barley in Lalibela and Dolomena and slight damage on beans in Kachise.

Station name	Region	Zone	Woreda	Major Crops			Phases		
				1	2	3	1	2	3
Aris Robe	Oromia	Mirab Arsi	Robe	Teff	Wheat	-	Tl	S	-
Alemkema	Amahara	Semen Shoa	Alemkema	Teff	-	-	Fl	-	-
Assosa	Benishagul	Assosa	Assosa	Sorghum	-	-	Ta	-	-
Ayehu	Amahara	Mirab Gojam	Ankosha	Maize	Peas	Pepper	Fr	R	Cr
Bedelle	Oromia	Illubabor	Bedlle	Maize	-	-	Fr	-	-
Bullen	Benishagul	Metekel	Bullen	Millet	Nug	Maize	Sh	Bu	R
Bui	SNNPR	Guarage	Sodo	Teff	Wheat	Sorghum	Ta	Tl	Ta
Chagni	Amahara	Awi	Guagnua	Maize	Millet	Nug	Wr	Ti	El
Chira	Oromia	Jimma	Gera	-	Sorghum	Teff	-	Fl	Fl
Dangila	Benishagul	Awi	Dangila	Millet	-	-	Tl	-	-
Debre Tabor	Amahara	Dabub Gonder	Debre Tabor	Wheat	Barely	Teff	Fr	R	Fl
Dolomana	Oromia	Bale	Mena	Maize	Sea same	-	Fl	Em	-
Enewary	Amahara	Semen Shoa	Mortenajiru	Wheat	Teff	-	Sh	Ta	-
Fitche	Oromia	Semen Shoa	Girarjarso	Teff	Wheat	Beans	Sh	Ea	Fl
Gelemeso	Oromia	Mira Haraghe	Habro	maize	-	Teff	Fr	-	Tl
Hossaina	SNNPR	SNNPR	Lemu	Barely	-	-	Ti	-	-
Kachise	Oromia	Mirab Shoa	Gindeberet	Beans	Teff	-	Fl	Ta	-
Lalibela	Amahara	Semen Wollo	Lasta	-	-	-	-	-	-
Limugent	Oromia	Jimma	Limukosa	Rice	Teff	-	Fl	Fl	-
Majate	Amahara	Semen Shoa	Mizan antakiya	Teff	-	Maize	R	-	Wr
Mehal Meda	Amahara	Semen Shoa	Gira mider	-	Barely	Beans	-	Ea	Fl
Nedjo	Oromia	Mira Wollega	Nedjo	Maize	Sorghum	Millet	Fr	Fl	Ta
Pawe	Benishagul	Metekele	Pawe liyu	Maize	Sorghum	Sea same	Wr	Ta	Fl
Shaura	Amahara	SemenGonder	ALEF.T	Maize	Millet	-	Ta	Ti	-
Shambu	Oromia	HoroWollega	Horo	Beans	Wheat	Barely	-	-	-
Shire	Tigiray	Mirab Tigray	Endasilasie	Maize	Teff	-	Fr	Ta	-
Sirinka	Amahara	Semen Wollo	Habru	Teff	Maize	Millet	Fl	Fl	Fl
Sokoru	Oromia	Jimma	Sokoru	Maize	Teff	-	Rf	Sh	-
Shola gebeya	Amahara	Semen Shoa	Hagaramariam	Wheat	Beans	-	Ea	Fl	-
Wagel Tena	Amahara	Semen Wollo	Delanta	Wheat	Beans	Millet	Tl	Fl	Ta
Waliso	Oromia	D.Mirab Shoa	Waliso	Maize	Nug	Teff	Fr	Yr	Ta
Ziway	Oromia	Misrak Shoa	Jidocombolcha	Maize	Wheat	-	Fr	Fl	-

Key :

P/S= Plant/Sow
Em=emerge
Tl=Third leaf
Fl=Fifth leaf
Sl=Seventh leaf
Yr=Yellow ripe
Nl= Ninth leaf
El= Elongation

Ta = Tassel
Ti=Tiller
Sh=shoot
Bs= Berry soft
Bh= Berry hard
Ph= Pin heading
Ea= Earing
He= Heading
Bu= budding

Fl=Flower
R = ripeness
Cr= Consumer ripeness
Gr= Green ripeness
Wr= Wax ripeness
Yg r= yellow green ripeness
Lgr =light green ripeness
Dr= dark ripeness
Fr= Full ripeness
H =Harvested

-Data not available

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING BEGA SEASON

Harvest and post harvest activities are the major practices over most parts of Meher growing areas; it is a cropping time for southern and southeastern lowlands of agro pastoral areas to perform water-harvesting activities for pastoral and agro pastoral areas of southern and southeastern lowlands. The weather situation could favor the outbreak of pests if there is untimely rain, favorable environment and the pest itself; besides, the dry and windy Bega's weather situation is favorable for the occurrence and spread of fire.

The probabilistic seasonal forecast for the southern portions of the country shows that close to normal condition is expected with occasional likely-hood of moisture shortage, likewise due to enhanced dry weather there will be a possibility of frost hazard during the season, mainly over northeastern, central, eastern and southern highlands.

The probabilistic seasonal forecast over the central and the northwestern parts of the country implies that there is high likelihood of the possibility of occasional unseasonable rainfall in line with this there will be more likelihood of post-harvest losses because of the unseasonal occasional rainfall over some parts of Meher growing areas of the country, hence, care should be taken during harvest and post– harvest activities. Farmers need to make more aware the situation over areas where there is expectation of normal to above normal rainfall. In line with the unseasonal rains there exist less likelihood of frost over the central and the northwestern highlands; however, there exists probability of more likelihood of frost over eastern and northeastern highlands due to relatively less unseasonal rains. The probabilistic seasonal forecast over northeast Ethiopia, eastern Oromia, northern Somali and the adjoining drought prone areas indicate that there is a chance of moisture stress during the season and therefore, Proper water harvesting is recommendable over areas where moisture stress is expected: over areas of northeastern Ethiopia, eastern Oromia, northern Somali and the adjoining drought prone areas.

There exists a probability of a widespread outbreak of pest and disease associated with low rainfall condition during the high sunny Bega season over mid and lowland areas.

In view of the development of desert locust in the neighboring countries of Ethiopia, over eastern Sudan and northern Somalia, it is important to pay attention for close monitoring and control operations over eastern and northwestern parts of the country.

Table 1. Climatic and Agro-Climatic elements of different stations for the month of September 2007

No.	Stations	Region	A/ rainfall	Normal	%of Normal	Eto mm/day	Monthly Eto	Moisture
1	**Adigrat**	**TIGRAI**	48.6	16.6	292.8	**3.04**	**91.2**	M
2	**Adawa**		98.6	126.4	78.0	**4.39**	**131.7**	M
3	**Humera**		51.8	95.3	54.4			
4	**Mekele**		78.6	46.4	169.4	**3.66**	**109.8**	M
5	**Maichew**		33.7	77.4	43.5			
6	**Maytsemri**		173.2					
7	**Senkata**		29.1	35.2	82.7			
8	**Shire**		177.6	120.9	146.9	**3.82**	**114.6**	H
1	**Assayta**	**AFAR**	24.3	12.8	189.8	**5.22**	**156.6**	D
2	**Dubti**		16.2	16.1	100.6	**5.71**	**171.3**	VD
3	**Semera**		50	0				
4	**Elidaar**		16	104.9	15.3			
1	**A. Ketema**	**AMHARA**	149.5	143	104.5	**3.08**	**92.4**	H
2	**Ayehu**		159.2					
3	**Aykel**		155.9	228.9	68.1			
4	**Bahirdar**		203.4	193.2	105.3	**3.3**	**99**	H
5	**Bati**		88.8	76.8	115.6			
6	**Bullen**		355.6	258.8	137.4	**2.95**	**88.5**	H
7	**Combolcha**		92.1	124.1	74.2	**3.33**	**99.9**	M
8	**Chefa**		56.4	33.9	166.4			
9	**D.Birhan**		83.8	76.1	110.1			
10	**D.Markos**		171.7	212.4	80.8	**2.38**	**71.4**	H
11	**D.Tabor**		160.5	186.1	86.2			
12	**Dangila**		183.7	215.6	85.2	**3.23**	**96.9**	H
13	**Enwary**		201.7	112.3	179.6	**3.1**	**93**	H
14	**Gonder**		125.2	116.1	107.8	**3.56**	**106.8**	H
15	**M.Meda**		112.8	69.9	161.4	**3.48**	**104.4**	H
16	**Majete**		156.9	91.3	171.9	**4.09**	**122.7**	H
17	**Metema**		262.2	181.5	144.5			
18	**Lalibela**		70.1	43.4	161.5	**2.63**	**78.9**	M
19	**Pawe**		283	258.8	109.4	**3.02**	**90.6**	H
20	**ShoaRobit**		109.8	94.9	115.7			
21	**S. Gebeya**		150.9	93.1	162.1	**2.89**	**86.7**	H
22	**Sirinka**		86.9	90.7	95.8	**3.86**	**115.8**	M
23	**Wegeltena**		97.7	62.2	157.1	**3.46**	**103.8**	M
24	**Wereilu**		99.2	76.7	129.3			
1	**Abomsa**	**OROMIYA**	122.9	115.8	106.1	**3.88**	**116.4**	H
2	**Adelle**		160	92.6	172.8			
3	**Aira**		419.3	271.8	154.3	**3.16**	**94.8**	H
4	**Alemaya**		69.3	112.3	61.7			
5	**Alge**		334.1	288.9	115.6			
6	**Ambo**		139.8	110.8	126.2	**3.08**	**92.4**	H
7	**Arjo**		461.1	249.3	185.0			
8	**Arsirobe**		177.1	116.7	151.8	**3.12**	**93.6**	H
9	**Bedelle**		404.7	221.7	182.5			
10	**Begi**		302.7	187.4	161.5			
11	**Blate**		169	55.1	306.7			
12	**Bore**		236.2					
13	**Chercher**		46.5	116.5	39.9			
14	**Chira**		220.9	217.2	101.7			
15	**D.Dollo**		166.2	151.6	109.6	**3.11**	**93.3**	H
16	**D.Mena**		198.7	75.9	261.8	**4.02**	**120.6**	H
17	**D.Zeit**		119.5	104	114.9	**3.28**	**98.4**	H
18	**Fitche**		125.6	121.7	103.2	**3.25**	**97.5**	H

19	**Ejaji**		176.2	153.8	114.6			
20	**Gelemso**		145.6	125.5	116.0	**3.57**	**107.1**	H
21	**Gimbi**		350	320.1	109.3			
22	**Ginir**		128.8	102.5	125.7			
23	**Gore**		244	318.2	76.7			
24	**H. Mariam**		222.5	52.5	423.8			
25	**Jimma**		252.5	182.9	138.1	**2.73**	**81.9**	H
26	**K.Mengist**		121.7	89.8	135.5	**2.92**	**87.6**	H
27	**Kachisa**		329	250.2	131.5	**2.93**	**87.9**	H
28	**Koffele**		138.6	154.1	89.9	**2.57**	**77.1**	H
29	**Limugenet**		221.6	253.4	87.5	**2.75**	**82.5**	H
30	**Mieso**		168.3	78.2	215.2	**4.12**	**123.6**	H
31	**Metehara**		69.7	46.3	150.5	**3.24**	**97.2**	M
32	**Moyale**		15.4	15.1	102.0	**3.95**	**118.5**	D
33	**Nazreth**		138	102	135.3	**4.7**	**141**	M
34	**Neghele**		18.7	40.2	46.5	**4.66**	**139.8**	D
35	**Nedjo**		256.6	288.8	88.9			
36	**Nekemte**		288.3	273.4	105.4	**2.64**	**79.2**	H
37	**Robe (Bale)**		108.9	120.7	90.2	**2.98**	**89.4**	H
38	**Sekoru**		245.3	168.8	145.3	**2.82**	**84.6**	H
39	**Shambu**		248.1	254.2	97.6	**3**	**90**	H
40	**Wolliso**		162	144.6	112.0			
41	**Yabello**		47	33	142.4	**3.37**	**101.1**	MD
42	**Ziway**		45.5	91.4	49.8	**4.26**	**127.8**	MD
1	**Gode**	**SOMALI**						
2	**Jijiga**		84.1	100.1	84.0			
1	**A.Minch**	**SNNPR**	178.6	78.8	226.6	**2.51**	**75.3**	H
2	**Awassa**		238	119.7	198.8	**3.22**	**96.6**	H
3	**Bui**		128.2	45.5	281.8			
4	**Dilla**		208.2	168.4	123.6	**2.96**	**88.8**	H
5	**Hosaina**		210.1	152	138.2			
6	**Jinka**		146.8	100.9	145.5	**2.99**	**89.7**	H
7	**Konso**		176.8	40	442.0	**3.53**	**105.9**	H
8	**M.Abay**		107.5	37.3	288.2			
9	**Sawla**		183	114.7	159.5	**3.22**	**96.6**	H
1	**Assosa**	**B/GUMUZ**	143.3	194	73.9	**2.91**	**87.3**	H
2	**Chagni**		402.6	284.6	141.5	**2.94**	**88.2**	H
1	**Gambela**	**Gambela**	207.4	168.5	123.1	**3.49**	**104.7**	H
1	**A.A.Obs.**	**A.A**	134	174.2	76.9	**2.52**	**75.6**	H
2	**A.A. Bole**		146.6	138.9	105.5	**3.24**	**97.2**	H
1	**Diredawa**	**D.D**	129.4	68.2	189.7	**4.67**	**140.1**	M
1	**Harar**	**Harai**	181.8	87.1	208.7	**2.38**	**71.4**	H

Legend

VD	Very Dry	< 0.1
D	Dry	0.1 - 0.25
MD	Moderatly Dry	0.25 - 0.5
M	Moist	0.5 - 1
H	Humid	>1

Explanatory Note

ETo Reference Evapotranspiration (mm)

DEFNITION 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 southeastern 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 northeastern 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.

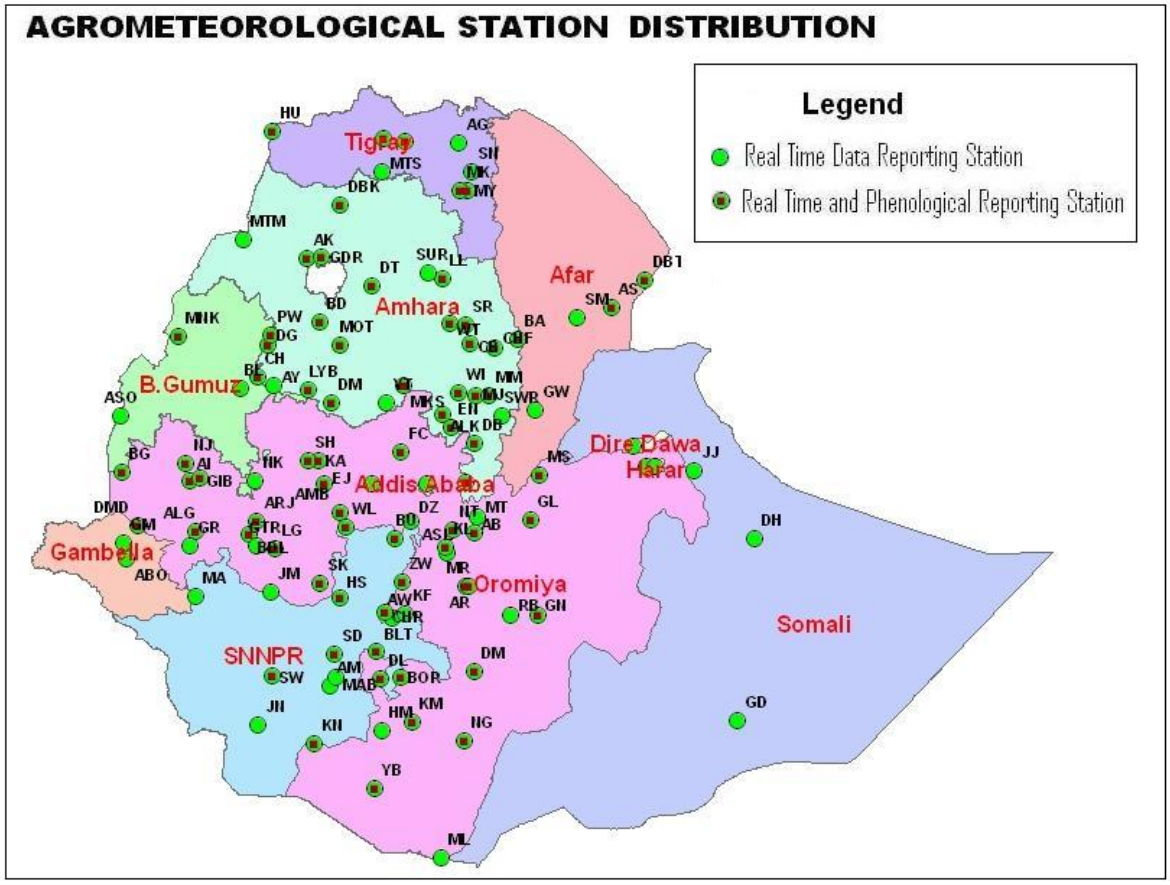
DEKAD: - First or second ten days or the remaining days of a month.

EXTREME TEMPERATURE: - The highest or the lowest temperature among the recorded maximum or minimum temperatures respectively.

ITCZ: - Intertropical 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 southeastern lowlands of the country.

RAINY DAY: - A day with 1 or more mm of rainfall amount.



Station	CODE	Combolcha	CB	Gonder	GDR	Metema	MTM
A. Robe	AR	Chagni	CH	Gore	GR	Mieso	MS
A.A. Bole	AA	Cheffa	CHF	H/Mariam	HM	Moyale	ML
Abomsa	AB	Chira	CHR	Harar	HR	Motta	MT
Abobo	ABO	D.Berehan	DB	Holleta	HL	M/Selam	MSL
Adigrat	AG	D.Habour	DH	Hossaina	HS	Nazereth	NT
Adwa	AD	D.Markos	DM	Humera	HU	Nedjo	NJ
Aira	AI	D.Zeit	DZ	Jijiga	JJ	Negelle	NG
Alemaya	AL	Debark	DBK	Jimma	JM	Nekemte	NK
Alem Ketema	ALK	D/Dawa	DD	Jinka	JN	Pawe	PW
Alge	ALG	D/Mena	DOM	K.Dehar	KD	Robe	RB
Ambo	AMB	D/Odo	DO	K/Mingist	KM	Sawla	SW
Aman	AMN	D/Tabor	DT	Kachise	KA	Sekoru	SK
Ankober	AK	Dangla	DG	Koffele	KF	Senkata	SN
Arbaminch	AM	Dilla	DL	Konso	KN	Shambu	SH
Asaita	AS	Dm.Dolo	DMD	Kulumsa	KL	Shire	SHR
Asela	ASL	Dubti	DBT	Lalibela	LL	Shola Gebeya	SG
Assosa	ASO	Ejaji	EJ	Limugent	LG	Sirinka	SR
Awassa	AW	Enwary	EN	M.Meda	MM	Sodo	SD
Aykel	AK	Fiche	FC	M/Abaya	MAB	Wegel Tena	WT
B. Dar	BD	Filtu	FL	Maichew	MY	Woliso	WL
Bati	BA	Gambela	GM	Majete	MJ	Woreilu	WI
Bedelle	BDL	Gelemso	GL	Masha	MA	Yabello	YB
Begi	BG	Gewane	GW	Mankush	MNK	Ziway	ZW
BUI	BU	Ginir	GN	Mekele	MK		
Bullen	BL	Gimbi	GIB	Merraro	MR		
Bure	BR	Gode	GD	Metehara	MT		