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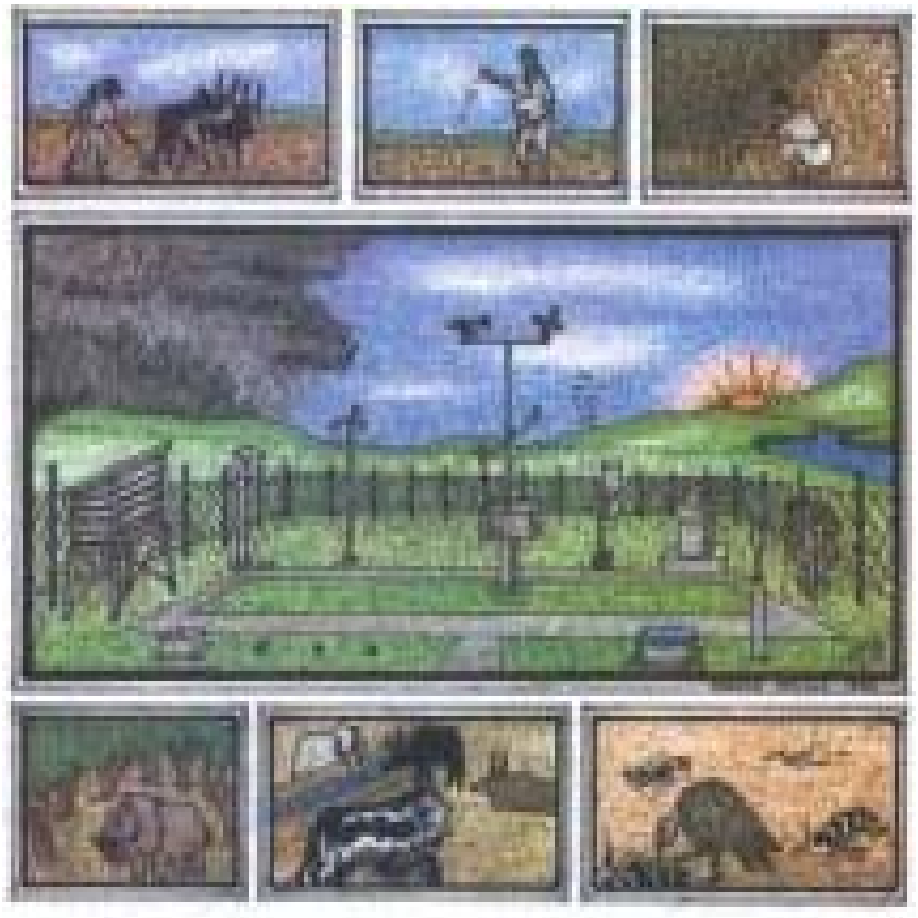

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FORE WARD

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 ኦገስት 2006

እ.ኤ.አ በኦገስት 2006 በመጀመሪያው አስርቱ ቀናት በሀገሪቱ የክረምት ዝናብ ተጠቃሚ አካባቢዎች የነበረው የዝናብ ሁኔታ አጠቃላይ ገፅታ ሲገመገም በብዙ አካባቢዎች ከተከሰተው የወንዞች መሙላት እንዲሁም ቅፅበታዊ እና ደራሽ ጎርፍ ጋራ በተያያዘ በወንዞች አካባቢና በውሃ ገብ መሬት በሚካሄድ የግብርና ልማቶች ለጎርፍ ተጋላጭ በሆኑ የእርሻ ማሳዎች ላይ እንደየ አካባቢው ሁኔታ በተለያዩ የዕድገት ደረጃ ላይ ባሉ ሰብሎች ዕድገት የተለያዩ ጉዳቶች እንደሚያስከትል ሲገመት በሀገሪቱ ልዩ ልዩ ክፍሎች በሚያዚያ ተዘርተው በመካከለኛው የዕድገት ደረጃ ላይ ባሉ ሰብሎች ዕድገት ተዘርተው በመካከለኛው የዕድገት ደረጃ (MID season stage) በመግባት ላይ ላሉና ከፍተኛ የውሃ ፍላጎት ደረጃ ላይ ላሉ የረጅም ጊዜ ሰብሎች አዎንታዊ ገፅታን ይኖረዋል ይሁን እንጂ በሀገሪቱ ልዩ ልዩ አካባቢዎች ላይ ባሉ የእርሻ ማሳዎች አፈሩ ሊይዝ ከሚችለው የእርጥበት አቅም (field capacity) በላይ የመሆን አዝማሚያ በሚታይባቸው ቦታዎች በተለይ በሸክላማ አፈር አካባቢዎች የውሃ መተኛትና የእርሻ ሥራን የማስተጓጎል አሉታዊ ገፅታ ይኖረዋል ከጠቋሚ ጠቢያዎቻችን መካከል መጠኑ ከ30-75.4 ሚ.ሜ የሚደርስ ከባድ ዝናብ በአንድ ቀን ብቻ ተመዝግቧል የጥቂቶቹን ለመጥቀስ ያህል ጂንካ፣ ጎንደ፣ ዳንግላ፣ ፓዌ፣ ማይጨው፣ ባህርዳር ፣አላማያ፣ ጋምቤላ፣ ክብረመንግስት እና ሆሳዕና 75.4፣ 70.5፣ 61.0፣ 55.0፣ 53.6፣ 52.4፣ 52.3፣ 46.2፣ 45.0 እና 44.8 ሚ.ሜ መጠን ያለው ዝናብ እንደየ ቅደም ተከተላቸው ተመዝግቦባቸዋል።

እ.ኤ.አ በኦገስት 2006 በሁለተኛው አስር ቀናት የዝናቡ ሁኔታ በመጠንም ሆነ በስርጭት የመኸር አምራች አካባቢዎች የነበሩትን ከመሸፈኑ አንፃር ለጎርፍ ተጋላጭ ባልሆኑ የደጋና የወይና ደጋ አካባቢዎች በማሳ ለይ በመካከለኛው የዕድገት ወቅቶች ላይ ላሉ ሰብሎች በጎ ጎን እንዳለው ሲገመት ፣በሌላ በኩል ግን ከክረምቱ ዝናብ ተከታታይነትና ጥንካሬ አንፃር በእርሻ ማሳዎች ላይ ያለው አስፈላጊ ከሆነው በላይ የሚገኘውን የርጥበት መጠን ፤የተክሎችን ቅጠሎች ሊያጠቁ ለሚችሉ ተዋህሳያንና ለአረም መራባት እንዲሁም የተክሎች ስሮችን የያዙትን አልሚ ማዕድኖች እንዲታጠቡ በማድረግ ለሚደርሱ አሉታዊ ሁኔታዎች መከላከያ የሚሆኑ ዘዴዎች ማጠናከር ተገቢ ይሆናል። በተጨማሪም በደጋማ አካባቢዎች በተከታታይነት በተራዘመ ሁኔታ ይስታዋል የነበረው የደመና ሽፋን ለሰብሎች ምቹ ሊሆን የሚችለውን የአየር ሙቀት መጠን (optimum temperature) በመቀነሱ የዕድገት ጊዚያቸውን ሊያራዝም ይችላል። ለጎርፍ ተጋላጭ በሆኑና በልዩ ልዩ ምክንያት በዝናብ ጥንካሬና ተከታታይነት በጎርፍ መከሰት ምክንያት በማሳ ላይ ያሉ ሰብሎች ለጉዳት በተዳረጉበት እንደየ አካባቢው ሁኔታ ፈጥነው ሊደርሱ በሚችሉ ሰብሎች የመተካት ሂደት አስፈላጊ ይሆናል። ከዘጋቢ ጣቢያዎቻችን መካከል ሞጣና መዘዞ በሰብል ላይ መጠነኛ ጉዳት መድረሱን የዘገቡ ሲሆን፣በጎሬም በእርሻ ማሳ ላይ የውሃ መጥለቅለቅ መድረሱ ተዘግቧል ። በአንፃሩም ዝናብ አጠር የሆኑ የአገራቱ ምስራቃዊ አጋማሽ ላይ የሚገኙ ቦታዎች የተሻለ ዝናብ በማግኘታቸው ለሰብሎች የተሻለ እነደሚሆን ይጠበቃል።

ከባድ ዝናብን በተመለከተ በአንዳንድ አካባቢዎች ላይ መጠኑ (ከ30-66) ሚ.ሜ የሚደርስ ከባድ ዝናብ በአንድ ቀን ብቻ ተመዝግቧል የጥቂቶችን ለመጥቀስ ያህል ፓዌ ፣ መተማ፣ አዲስ አበባ፣ ቦሌ፣ አይራ፣ ቻግኒ፣ በደሌ፣ አምቦ እርሻ ምርምር፣ ማጀቴ፣ አልጌ፣ እና ነቀምቴ 66.0፣ 65.0፣ 61.7፣ 58.2፣ 53.3፣ 50.0፣ 49.0፣ 48.7፣ 46.0 እና 44.0 ሚ.ሜ ከባድ ዝናብ እንደየ ቅደም ተከተላቸው ተመዝግቦባቸዋል።

እ.ኤ.አ በኦገስት 2006 ሶስተኛ አስርተ ቀናት በአብዛኛው የአገሪቱ መኸር አብቃይ አካባቢዎች የነበረው ዝናብ ሁኔታ በተለያዩ የእድገት ደረጃ ላይ ላሉ አዝርዕት ምቹ ሁኔታን የፈጠረ ነበር። ይሁን እንጂ በአንዳንድ የመካከለኛው፣ የሰሜን ምሥራቅ፣ የምዕራብና የደቡብ ከፍተኛ ቦታዎች ላይ የጣለው ከባድ ዝናብ በአዝርዕትና ለዘር በተዘጋጀ ማሣ ላይ ከፍተኛ ጉዳት አስከትሎ ነበር። ለምሳሌ በመዘዞ በረዶ ቀላቅሎ የጣለው ከባድ ዝናብ በእህል ክምር ላይ ጉዳት አስከትሎ ነበር። በግምቱ አምስት ሄክታር በሆነ የጤፍ ሰብል ላይ ጉዳት አስከትሏል። በባሌ ሮቤ በ163 ሄክታር ማሳ ላይ የነበረ ሰብል ከማውደሙም ባሻገር 132.5 ሄክታር ለዘር የተዘጋጀ ማሣ በማጥለቅለቅ አፈሩ እንዲታጠብ አድርጎ ነበር። በሆሳዕና እና በወገል ጤና በማሳ ላይ የውሃ ማቆር ተከስቶ ነበር በተጨማሪም በቆላማው የአርብቶ አደር አካባቢ የወንዞች መሳት ለበርካታ እንሰሳት መሞትና የከብቶቹ የግጦሽ መሬትም ችግር እንዲገጥመው ምክንያት ሆኖ ነበር።

ከአዝርዕት መረጃችን መረዳት እንደተቻለው በአንዳንድ አካባቢዎችም ከላይ በተጠቀሰው አሥር ቀናት የዘር ጊዜ ተከናውኖ ነበር። ከምዕራብ እንደ ሊሙ ገነት እንዲሁም ከምሥራቅ እንደ ገለምሶ ባሉት አከባቢዎች ጤፍ በመዘራት ላይ ነበር። ይኸ ሰብል በብዙ አካባቢዎች በቡቃያ ላይ የነበረ ሲሆን በአንፃሩ በምዕራብ በሰሜን ምዕራብ እና በደቡብ ብሄር ብሄረሰቦችና ሕዝቦች አንዳንድ ቦታዎች ላይ የበቆሎ የጥራጥሬና የስራስር ተክሎች በመድረስ ላይ ነበሩ።ከጠቋሚ ጣቢያዎቻችን መካከል አብዛኛው ጣቢያዎች ከ30-72 ሚ.ሜ መካከል የሚደርስ በአንድ የዝናብ ቀናት ብቻ አስመዝግበዋል። የጥቂቶች ለመጥቀስ ያህል ባህርዳር፣ ቄ፣ ወሊሶ ጨፋ፣ጭራ፣ሽሬ፣ ኮንሶ፣ ደብረታቦር፣ አለምከተማ፣ ኢጃጂ፣ መቀሌ፣ አለማያ፣ ጂጂጋ፣ አዲስ አበባ፣ ቦሌ፣ ሰንቃጣ እና ናዝሬት 72.0 ፣55.2፣ 54.4፣ 47.0፣ 45.4፣ 44.1 ፣43.2፣ 41.1፣ 40.5፣ 40.2 ፣40.1፣ 39.2፣ 36.7፣ 36.0፣ 35.7፣ እና 35.2 ሚ.ሜ እንደየቅደም ተከተላቸው ከባድ ዝናብ በአንድ የዝናብ ቀናት ብቻ ተመዝግ ቦባቸዋል።

ከላይ በተጠቀሰው ወር በተለይ በወሩ የመጀመሪያው አስር ቀናትና ሶስተኛው አስር ቀናት ላይ አብዛኛውን የአገሪቱ ክፍል በክረምት ወራት ዝናብ ማግኘት በማይጠበቅባቸው የደቡብ ኦሮሚያን ጨምሮ ያደረሰው የተስፋፋ ዝናብ ከዚያው ጋ በተያያዘ መልኩ በብዙ ቦታዎች ላይ (ከዘጋቢ ጣቢያዎቻችን እስከ 30 በሚደርሱ ጣቢያዎች) መጠኑ ከ30 ሚሊ ሜትር የሚደርስ ዝናብ በአንድ የዝናብ ቀን ብቻ ከመመዝገቡም ባሻገር በአንዳንድ አካባቢዎች ለምሳሌ በጨራ፣ በሺሬ፣ ሊሙ ገነት፣ ማጀቴ፣ ወገል ጤና እና በመሳሰሉት አካባቢዎች በወሩ ውስጥ ከ5-6 ጊዜ ከባድ ዝናብ በተደጋጋሚ ተከስቶባቸው ነበር ይህም ሁኔታ ለንርፍ ተጋላጭ በሆኑ እንደ ድሬደዋ፣ ባህር ዳርና ሌሎችም እንዲሁም በወንዝ ዳር ባሉ በርካታ አካባቢዎች ላይ በሰብልና በእንሰሳት ላይ ጉዳት አስከትሎ ነበር።
በከፍተኛ ደረጃ ጉዳት የደረሰባቸውን የድሬደዋንና የኦሞ ወንዝ ሙላትን ብንመለከት ለድሬደዋ በራሱ ድሬዳዋ ከዘነበው ዝናብ ሌላ በቁልቢ፣ ደንገጎና ዓለማያ ላይ የጣለው ከባድ ዝናብ እንዲሁም ለኦሞ ወንዝ መሙላትና እስከ አሁንም ያለመቀነስ ምክንያት የሆኑት የወንዙ ገባሮች ባሉበት አካባቢ ለምሳሌ እንደ ሆሳዕና ሊሙ ገነትና ጨራ ላይ በተከታታይ እየጣለ ያለው ከባድ ዝናብ ነው። በመሆኑም የተፋሰሶች አቀማመጥም በራሱ ለደረሰው ጉዳትና እየደረሰ ባለው ጉዳት ላይ የራሱ አስተዋፅኦ እንደነበረው ነው ለመረዳት የተቻለው።

ጉዳት የደረሰባቸውን ተጨማሪ ቦታዎች ለመጥቀስ ያህል በነጆ በማሽላና በቆሎ ሰብል ላይ በማጀቴ፣ ለዘር በተዘጋጀ ማሣ ላይና በአካባቢው ቋሚ ተክሎች ላይ፣ በጎሬ በእርሻ ማሳ ላይ፣ በሰንቀጣ በዛፎች እና በሰብል ላይ፣ በጎሬ በእርሻ ማሳ ላይ፣ በሰንቀጣ በዛፎች እና በሰብል ላይ፣ በመዘዞ በጥራጥሬ አዝርዕት ላይ፣ በሞጣ በጤፍ ቡቃያ ላይ፣ በቋራ ግምቱ 5 ሄክታር በሆነ ማሣ ላይ፣ በአዋሣ ዛፎችን በመነቃቀል በባሌ ሮቤ በሰብልና ለዘር በተዘጋጀ ማሳ ላይ ጉዳት መድረሱን ከደረሰው ሪፖርት መረዳት ተችሏል። በተጨማሪም በአንዳንድ አካባቢዎች እንደ ጨፋ ባሉ አካባቢዎች በበሽታ መከሰት በሰብል ላይ የከፋ ጉዳት መድረሱ ሪፖርት ተደርጎ ነበር።

ጠቅለል ባለ መልኩ ከላይ ከተጠቀሱት ችግሮች በስተቀር በብዙዎቹ የአዝርዕት መረጃቸው በሚደርሰን ጣቢያዎች በወሩ የዘር ጊዜ የተካሄደባቸውም እንዲሁም በብዙ አካበቢዎች ያሉ በተለያየ የእድገት ደረጃ የሚገኙ አዝርዕት በመልካም ሁኔታ ላይ ነበሩ። በተጨማሪም በቆላማ የአርብቶ አደሩ አከባቢ የተከሰተው ጎርፍ ምንም እንኳ በሰውና በንብረት ላይ ጉዳት ያስከተለ ቢሆንም፣ ለመጪዎቹ ጊዜያት ለአካባቢዎቹ አርብቶ አደሮች የውሃ አቅርቦት በጎ ጎን ይኖረዋል። የከርሰ ምድሩን የውሃ መጠን ከፍ ስለሚያደርገው በቀላሉ አሸዋውን ጫር ጫር በማድረግ ውሃን የሚያገኙበት ሁኔታ እንደሚኖር ኢጋዥነት አለው፤

SUMMARY
AUGUST 2006

During the first dekad of August 2006, the observed normal to above normal rainfall over Kiremt benefiting areas resulted in the overflow of rivers and flash floods. This situation resulted in crop damage, which were attaining different phenological stages; the situation is more severe on crop fields particularly over low-lying areas and riverbanks. On the other hand, the observed seasonal rainfall over Meher growing areas could have a positive impact to fulfill crop water requirements of long cycle crops, which were sown during the month of April, and attaining mid-season growing stage. However, the pronounced widespread and intensified rainfall over different parts of the country might result in over saturation and water logging in crop fields; where the soil type is clay and this situation can affect negatively the ongoing season's agricultural activities. According to the reporting station, heavy rainfall was observed with the range of (30-75.4mm) in one rainy day. To mention some of them, Jinka, Gonder, Dangla, Pawe, Maichew, BahirDar, Alemya, Gambela, Kibre Mengist and Hosaina received 75.4, 70.5, 61.0, 55.0, 53.6, 52.4, 52.3, 46.2, 45.0, and 44.8 mm of heavy rainfall in one ranydays respectively.

During the second dekad of August 2006, the observed seasonal rainfall in terms of amount and distribution covered much of Meher growing areas of the country. Particularly, the observed seasonal rainfall over mid and highlands that are not flood prone areas had positive impact on crops, which are at different phenological stages. Besides the wet condition favored sowing activities in some areas. On the other hand, in terms of its persistency and strength resulted in water logging and over saturation on some crop fields. Moreover, this condition might create conducive condition for the outbreak of pests,

which can be aggressive at the time of excess moisture condition. In addition to this, the observed persistent cloud coverage for consecutive dekads over the highlands could induce excess vegetative growth by minimizing thermal requirement of the crops that is important for normal growth and development of crops. In accordance to the crop phenological report Mezezo and Mota reported slight crop damage due to heavy rainfall and Gore reported flood damage on crop fields. On the contrary, the observed rainfall condition was favorable over most parts of the reporting stations. Some stations exhibited heavy fall within the range of (30.1-66.2mm) in one rainy day, to mention some of them, Pawe, Metema, A/A Bole, Aira, Chagni, Bedelle Ambo Agriculture, Majete, Alge Nekemte, received 66.2, 65.0, 61.7, 58.2, 53.3,50.0 49.0, 48.7, 46.0, 44.0mm of heavy fall in one rainy days respectively.

During the third dekad of August 2006, the observed seasonal rainfall over most parts of Meher growing areas of the country has favored crops, which were at different phenological stages. However, the observed heavy fall together with hailstorm over some areas of central, northeastern, western and southern highlands of the country resulted in crop damage and washed away seedbeds, which were ready for sowing. For instance Mezezo reported damage on harvested crops. Chira reported damage on 5 hectares of teff crops and Bale Robe reported damage on 163 hectare of crops and 132.5 hectare of seedbed washed away, which were ready for sowing. Besides Hosaina and Wegel Tena reported water logging on crops field. With regard to the livestock conditions the overflow of rivers and flash floods observed over pastoral areas resulted in livestock loses and created a problem on pastoral lands. Pursuant to the crop phenological report sowing activity was underway in some parts of the country during the dekad under review. Tef was being sown over some areas of western (Limu Genet) and eastern (Gelemso) parts of the country. On the other hand, maize, pulse crops, and root crops were at full ripeness stage over some areas of western, northwestern and some parts of SNNPR. Among the reporting station most stations exhibited heavy fall within the range of (30 - 72 mm) in one rainy day, to mention some of them, Bahir Dar, Pawe, Weliso, Cheffa, Chira, Shire, Konso, Debre Tabor, Alem Ketema, Ejaji, Mekele, Alemya, Jijiga, Addis Ababa Bole, Senkata, and Nazreth recorded 72.0, 55.2, 54.4, 47.0, 45.4, 44.1, 43.2, 41.1, 40.5, 40.2, 40.1, 39.2, 36.7, 36.0, 35.7 and 35.2mm of rainfall, respectively.

During the month under review particularly the observed widespread rainfall during the first and third dekads of the month covers most parts of the country even areas which are not supposed to get rainfall during the season like southern Oromia. Besides some areas (about 30 stations from the reporting stations) received heavy fall greater than 30 mm in one rainy day and resulted in crop damage in some areas. Fore instance, Chira, Shire, Limu Genet, Majete, Wegel Tena exhibited heavy falls for 5-6 days repeatedly during the month. As a result flood damage has been observed over flood prone areas like Dire Dawa and Bahir Dar, thereby some areas experiencing crop damage and livestock losses. Moreover, heavy falls over the highlands also resulted in overflow of rivers and caused flood in low-lying areas in most places. Among the reporting stations Nedjo, Majete, Gore, Sinkata, Mezezo, Mota, Chira, Awassa and Bale Robe reported cereal crops, pulse crops and perennial crops damage due to heavy falls during the month under review. In addition to these, pest outbreak has been observed in some areas and some areas like Chefa reported severe crop damage due to disease. In general, with the exception of the aforementioned problems which was observed over some sensitive areas due to heavy fall, the crop phenological data confirmed that the performance of the crops were in good shape in most parts of the country. Moreover, although the observed overflow of rivers and flash floods over pastoral areas resulted in the death of the people and property loss, it would have positive contribution for pasture and drinking water for pastoral areas for the coming few month by uplifting the ground water and enable the pastoralists get water easily with little effort.

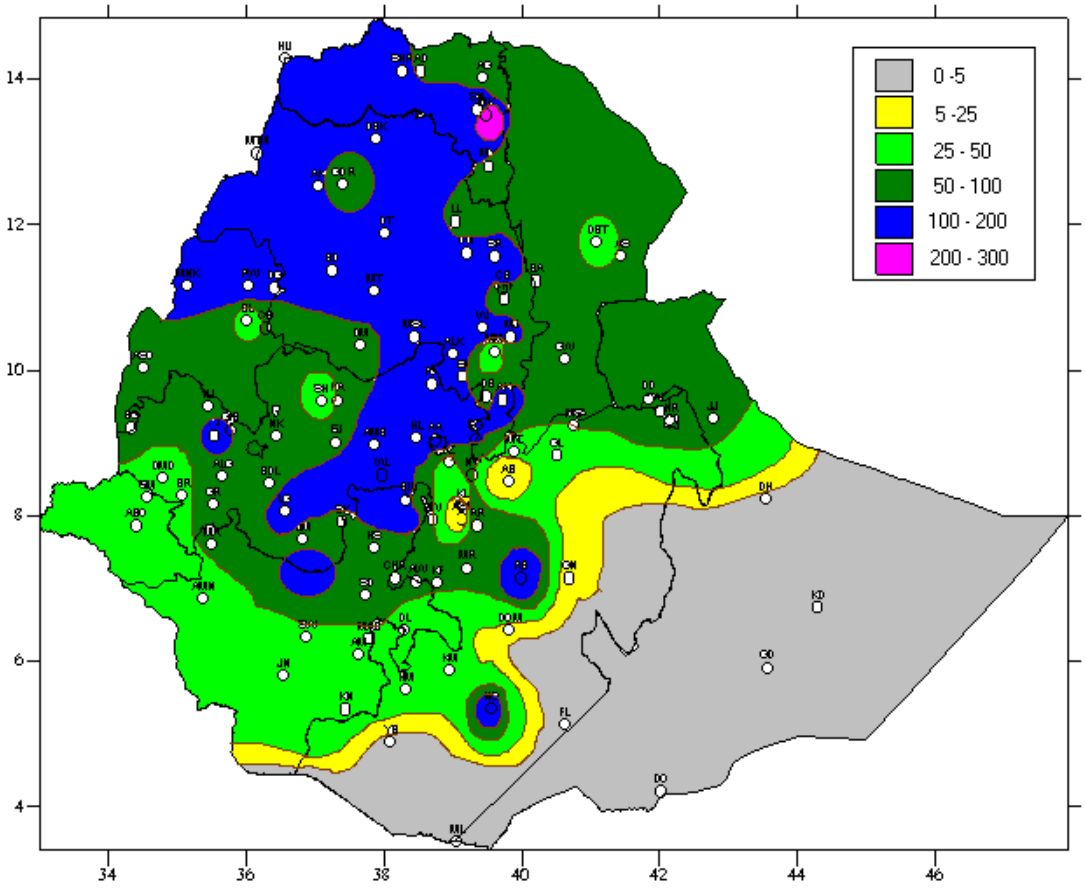


Fig 1. Rainfall distribution in mm (21 – 31 August, 2006)

1. WEATHER ASSESSMENT

1.1 (21- 31 August, 2006)

1.1.1 Rainfall amount (Fig.1)

Pocket areas of southern Tigray experienced 200-300 mm of rainfall. Much of Amhara, Tigray, some areas of central and western Oromia, pocket areas of south Oromia and northwestern SNNPR received 100-200 mm of rainfall. Afar, few areas of northern and southern Tigray, pocket areas of western, parts of southern and southwestern Amhara, southern half of Benshangul-Gumuz, most parts of western Oromia , parts of northern SNNPR, southern Oromia, and northern Somali received 50-100mm of rainfall. Pocket areas of central parts of Afar, eastern Bensahngul-Gumuz,western and central Oromia, much of SNNPR, parts of southern and eastern Oromia and Gambela exhibited 25-50mm of rainfall. Parts of northern Somali, southern and southwestern Oromia received 5-25mm of rainfall. There was little or no rainfall for the rest parts of the country.

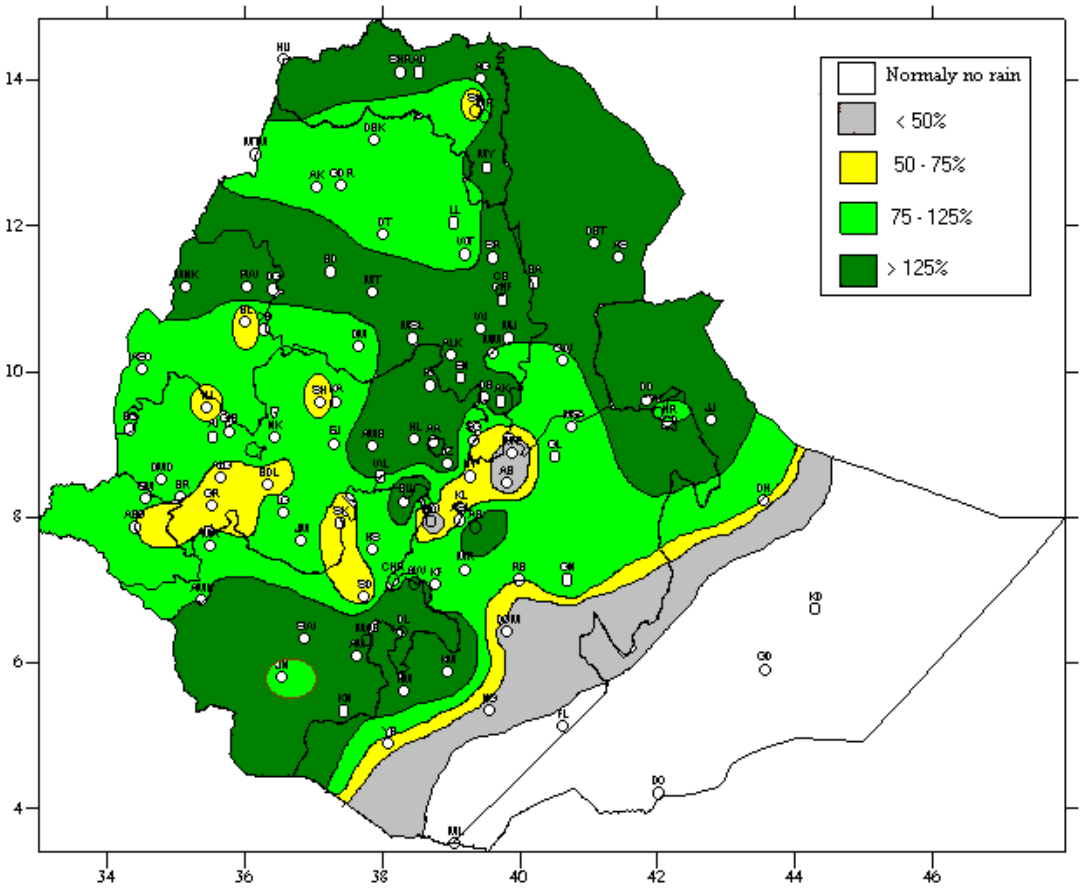


Fig. 2 Percent of normal rainfall distribution (21-31, August, 2006)

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. 2)

Amhara, Tigray, Afar, Benshngul-Gumuz, much of Oromia, Gambela, SNNPR, and northern Somali exhibited normal to above normal rainfall. Pocket areas of Benshangul -Gumuz, western and central Oromia, northern SNNPR and parts of eastern Somli received below to much below normal rainfall.
Normally, Kiremt is not a rainy season for southern and south eastern Somali.

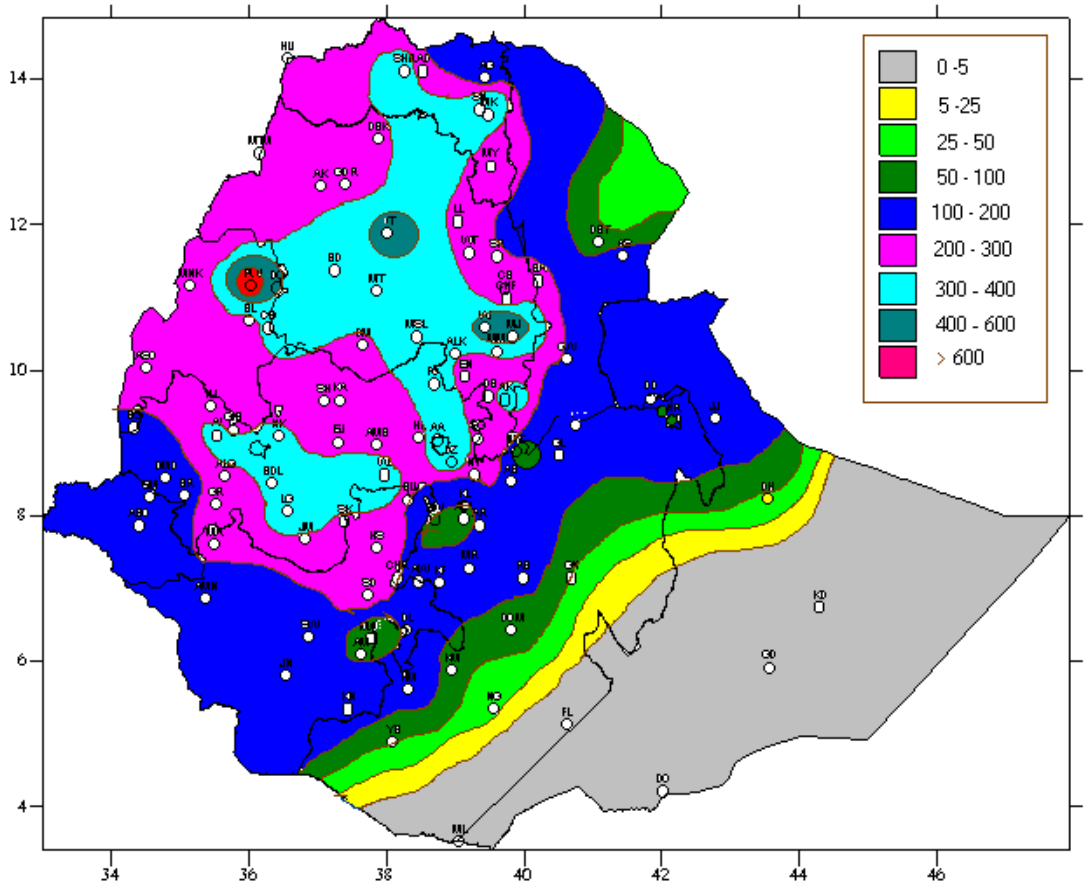


Fig. 3 Rainfall distribution in mm for the month of August 2006

1.2 August 2006

1.2.1 Rainfall distribution (Fig.3)

Pocket areas of eastern Benshangul-Gumuz received above 600mm of rainfall. Pocket areas of central and southern Amhara received 400-600mm of rainfall. Much of Amhara, parts of central and western Oromia, southern and western Tigray, exhibited 300-400mm of rainfall. Parts of western and southern Tigray, western and eastern Amhara, most parts of Benshangul-Gumuz, parts of central and western Oromia and northern SNNPR experienced 200-300mm of rainfall. Parts of northeastern Tigray, western and southwestern Afar, northern Somali, eastern and southern Oromia, most parts of SNNPR, and Gambela received 100-200mm of rainfall. Parts of eastern Afar, pocket areas of central Oromia, and northern SNNPR, eastern Somali, southern and south western Oromia exhibited 50-100mm of rainfall. Parts of eastern Afar, eastern Somali, south and southwestern Oromia experienced 25-50mm of rainfall. There was little or no rainfall for the rest parts of the country.

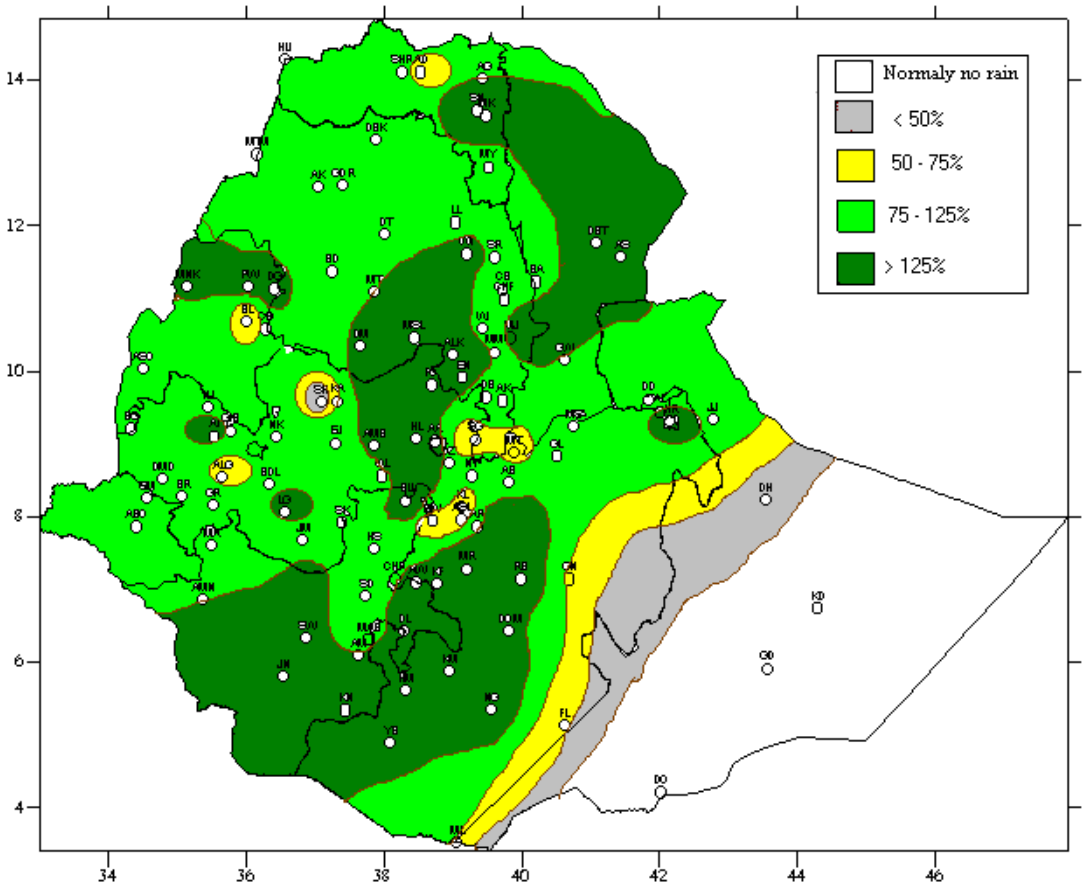


Fig. 4 Percent of Normal Rainfall distribution for the month of August 2006

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. 4)

With the exception of pocket areas of northern Tigray, eastern Benshngul-Gumuz, western and central Oromia, parts of northern Somali, the rest parts of the country received normal to above normal rainfall. Normally, Kiremt is not a rainy season for south and south eastern Somali.

1.3 TEMPERATURE ANOMALY

Only some station recorded extreme maximum temperature above 35^0C. To mention them Metehera, Debre Zeit, Dire Dawa, Assayta, Semera and Dubti recorded extreme Maximum temperature as high as 35.2, 35.5, 35.5, 41.5, 42.0 and 44.0 ^{0}C respectively.

2. WEATHER OUTLOOK

2.1 For the first dekad of September 2006

Under normal circumstances, the kiremt rainfall activity generally decreases from the northeastern lowlands starting from the first week of September.For the coming ten days, the rain producing systems will continue in an organized manner over most parts of the kiremt benefiting areas of the country. In line with this, the spatial distribution and amount of rainfall over some places will get strength as of the pervious days. Hence, heavy fall are expected to over various places.
In general, Tigray, Amhara, Benshangul-Gumz, western and central Oromia and Afar are highly likely to get above normal rainfall. In addition, Gambela, northern half of SNNPR, Dire Dawa, northern Somali, Harari, and eastern Oromia mostly have near normal rains. On the other hand, the rain-bearing system will continue having its strengthens. So southern half of SNNPR and southern Oromia are more or loess expected to get normal rainfall.

2.1 For the month of September 2006

As the prognostic charts have already indicated, in September, the current rain-getting region will continue to get rain-showers in normal condition. However, the rain-bearing systems are likely to weaken gradually from northeastern, eastern, central and northern portions of Ethiopia even if this is so, the rainfall amount as well as the spatial coverage will be above normal circumstances. As a result, the total rainfall amount will become normal and above normal at the end of this month. In association with this, in the coming September, much of Afar, Tigry, Amhara, central and western Oromia as well as Benshangul-Gumuz regions are expected to have regular or above regular rainfall activity at many places. Also, there will be heavy rains accompanied thunder and hail at some places of the aforementioned regions. On the other hand, northern Somali, DireDawa, Harari, eastern Oromia and much of SNNPR will receive near normal rainfall. After mid of September, southern Oromia and the adjoining Somali regions will commence to get rain-showers and the rainfall amount will also be near standard.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the month under review particularly the observed widespread rainfall during the first and third dekads of the month covers most parts of the country even areas which are not supposed to get rainfall during the season like southern Oromia. Besides some areas (about 30 stations from the reporting stations) received heavy fall greater than 30 mm in one rainy day and resulted in crop damage in some areas. Fore instance, Chira, Shire, Limu Genet, Majete, Wegel Tena exhibited heavy falls for 5-6 days repeatedly during the month. As a result flood damage has been observed over flood prone areas like Dire Dawa and Bahir Dar, thereby some areas experiencing crop damage and livestock losses. Moreover, heavy falls over the highlands also resulted in overflow of rivers and caused flood in low-lying areas in most places. Among the reporting stations Nedjo, Majete, Gore, Senkata, Mezezo, Mota, Chira, Awassa and Bale Robe reported cereal crops, pulse crops and perennial crops damage due to heavy falls during the month under review. In addition to these, pest outbreak has been observed in some areas and some areas like Chefa reported severe crop damage due to disease. In general, with the exception of the aforementioned problems which was observed over some sensitive areas due to heavy fall, the crop phenological data confirmed that the performance of the crops were in good shape in most parts of the country. Moreover, although the observed overflow of rivers and flash floods over pastoral areas resulted in the death of the

people and property loss, it would have positive contribution for pasture and drinking water for pastoral areas for the coming few month by uplifting the ground water and enable the pastoralists get water easily with little effort.

In accordance with the crop phenological report sowing of teff and pulses was underway in some areas of western Oromia like Limu Genet and Shambu. On the other hand, harvest of maize was going on in some areas of western Oromiya like Chira. Maize was at ninth leaf and tasseling stage in some areas of northwestern Amhara (Dangla) and eastern Amhara (Bati, Majete and Combolcha) while at flowering stage in some areas of western Oromia (Alge) and some areas of western Amhara (Chagni). Moreover it was at ripeness stage in some areas of western Amhara (Mankush), southern Oromia (Kibre Mengist) and some areas of western Oromia (Aira, Gimbi, Sekoru and Nedjo). Wheat was at early vegetative stage in some areas of central and western Oromia (Kulumsa, Ziway, Bui, Fitche and Gimbi) including southeastern Amhara (Enewary and Shola Gebeya) while at flowering stage in some areas like Algie. Tef was at emergence and third leaf stage in some area of central and western Oromia like Bui, Arsi Robe, Fitche, Shanbu, Gimbi and Sekoru, eastern Amhara like Bati, Majete, Kombolcha and Enewari, western Amhara like Dangla and Mota including western Benishangul – Gumuz. It was at shooting stage in some areas of central and western Oromia (Ziway and Chira) and eastern Amhara (Sirinka and Alem Ketema). Beans were at budding stage in some areas of central Oromia (Kulumsa) and eastern Amhara (Wegel Tena, Enewary and Shola Gebeya) while at flowering stage in some areas of central Oromia (Fitche) and southeastern Amhara (Mehal Meda). Millet is at shooting stage in some areas of western Oromia and northwestern Benishangul Gumuz. Sorghum is at third leaf, tillering and shooting stage in some areas of eastern Amhara (Alem Ketema, Bati and Kombolcha) and some areas of western Oromia (Nedjo), southwestern Benishangul- Gumuz (Assossa) while at flowering stage in some areas of northwestern Benishangul Gumuz.

3.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH

The anticipated high probability of normal to above normal rainfall over most parts of the country would have a positive contribution for the water requirement of most crops, which are at different phenological stage at this time of the year. Moreover the expected good moisture condition would favor sowing activities of pulses in most parts of the country and would also favor sowing activities of cereals like tef, sorghum and maize over the midlands of southern Ethiopia. In addition to these the anticipated normal to above normal September rainfall would favor the availability of pasture and drinking water over the lowlands of southern and southeastern Ethiopia which are supposed to get rainfall as of the second dekad of September under normal circumstance. During the coming month the expected normal to above normal rainfall over most parts of Afar, Tigray, Amhara, central and western Oromia, would have a positive contribution for season's agricultural activities, but the expected heavy fall together with hailstorm would have negative impact on crops as well as livestock production. Therefore, close monitoring and appropriate attention should be given over low-lying areas and near riverbanks in order to mitigate the effect of adverse condition due to heavy falls ahead of time. Even though, the expected near normal rainfall over northern Somali, Harari, Dire Dawa and eastern Oromia as well as much of SNNPR would have a positive contribution for the on going season's agricultural activities, the expected little moisture with the sunny interval would favor the outbreak of pest and disease in some areas. Thus close monitoring about the situation and attention should be given over sensitive areas ahead of time to minimize the effect of adverse weather situation. On the other hand, the expected sunny outbreak would create conducive atmosphere for harvest and post harvest activities in some areas like Sidama Gidole, north and south Omo, Dawro, Kembata, Alaba & Tembaro in areas where the harvest activity start during the month under review under normal condition.

Table 1. Climatic and Agro-Climatic elements of different stations for the month of August 2006

Stations	Region	A/ rainfall	Normal	%of Normal	Eto mm/day	Monthly Eto	Moisture status
Adigrat	**TIGRAI**	160	151.0	106.1	2.9	89.9	H
Adwa		148	251.7	58.8	NA	NA	NA
Mekele		307	201.6	152.1	3.09	95.79	H
Michew		221	198.9	111.3	3.7	114.7	H
Senkata		264	198.2	133.1	2.65	82.15	H
Shire		355	286.3	124.1	3.01	93.31	H
Assayta	**AFAR**	130	36.3	358.7	4.31	133.61	M
Dubti		83	48	172.1	6.51	201.81	M
Semera							
A. Ketema	**AMHARA**	355	347.5	102.2	2.87	88.97	H
Bahirdar		365	381.8	95.5	3.28	101.68	H
Bati		211	193.6	109.1	3.94	122.14	H
Bullen		241.8	366.5	66.0	2.8	86.8	H
Combolcha		277	256.3	108.2	3.74	115.94	H
Chefa		271	263.4	102.8	4.25	131.75	H
D.Birhan		229	261.6	87.6	2.81	87.11	H
D.Markos		282	205.4	137.2	2.76	85.56	H
D.Tabor		428	435.1	98.3	NA	NA	NA
Dangla		393	262.9	149.4	2.62	81.22	H
Enwary		288	171.4	168.1	2.79	86.49	H
Gonder		297	299.3	99.1	NA	NA	NA
M.Meda		39	259.6	15.0	NA	NA	NA
Majete		498	301.3	165.4	4	124	H
Metema		263.1	234.4	112.2	3.69	114.39	H
Motta		356	285.1	124.9	3.18	98.58	H
Lalibela		180	231.9	77.5	NA	NA	NA
S. Gebeya		219	297.1	73.6	2.54	78.74	H
Sirinka		284	247.3	114.8	NA	NA	NA
Wegeltena		297	231.2	128.5	2.75	85.25	H
Wereilu		401	341.8	117.2	3.03	93.93	H
Arsi Robe	**OROMIYA**	239	214.9	111.2	NA	NA	NA
Ambo Agri.		278	203.2	136.6	2.54	78.74	H
Abomsa		169	161.5	104.5	NA	NA	NA
Aira		367	277.4	132.2	2.4	74.4	H
Alemaya		191	155.1	123.4	3.09	95.79	H
Alge		210	329.5	63.8	NA	NA	NA
Arjo		288	342.6	84.1	NA	NA	NA
Bedelle		321	316.9	101.3	2.68	83.08	H
Begi		192	218.4	87.9	NA	NA	NA
Bui		212	87.9	240.7	NA	NA	NA
Chira		350	224.5	155.9	NA	NA	NA
D.Dollo		108	167.1	64.9	2.88	89.28	H
D.Mena		70	27.2	256.3	3.62	112.22	M
D.Zeit		143	219	65.3	3.26	101.06	H
Ejaji		244	221	110.3	2.73	84.63	H
Fitche		365	337.5	108.1	2.77	85.87	H

Gelemso		196	172	113.8	3.65	113.15	H
Gimbi		297	332.1	89.5	2.76	85.56	H
Ginir		27	36.8	72.6	NA	NA	NA
Gore		265	330.7	80.2	2.54	78.74	H
H. Mariam		101	41	246.3	2.73	84.63	H
Jimma		240	212.8	112.6	2.63	81.53	H
K.Mengist		94	31	303.9	2.83	87.73	H
Kachise		NA	NA	NA	NA	NA	NA
Kulumsa		94	134.7	69.6	3.04	94.24	M
Lumugenet		349	277.6	125.8	3.6	111.6	H
Meisso					NA	NA	NA
Metehara		65	125	52.0	NA	NA	NA
Moyale		7	8.9	80.9	NA	NA	NA
Nazreth		217	214.2	101.1	4.08	126.48	H
Neghele		25	5.5	445.5	NA	NA	NA
Nedjo		264	312.2	84.5	NA	NA	NA
Nekemte		336	376.6	89.3	2.51	77.81	H
Robe(Bale)		183	119.4	153.2	3.43	106.33	H
Sekoru		230	223.1	103.2	NA	NA	NA
Shambu		178	376	47.3	2.59	80.29	H
Wolliso		NA	NA	NA	NA	NA	NA
Yabello		32	13.6	234.6	NA	NA	NA
Ziway		71	118.9	59.6	3.93	121.83	M
Jijiga	**SOMALI**	150	120.5	124.5	4.86	150.66	H
Gode		NA	NA	NA	NA	NA	NA
A.Minch	**SNNPR**	75	44.1	168.9	3.56	110.36	M
Awassa		170	125.7	135.4	3.36	104.16	H
Hosaina		223	184.4	120.9	2.65	82.15	H
Jinka		181	78.9	229.0	3.22	99.82	H
Konso		101	25.1	403.2	4.06	125.86	M
M.Abay		63	53.5	118.5	4.08	126.48	M
Mankush							
Sawla							
Sodo		235	201.5	116.7	NA	NA	NA
Assosa	**B/GUMUZ**	247	236.7	104.3	3.4	105.4	H
Pawe		640	388.3	164.9	3.06	94.86	H
Chagni		305.2	354.2	86.2	2.8	86.8	H
A.A.Obs.	**A.A**	243.6	278	87.6	2.74	84.94	H
A.A. Bole		332	236.2	140.5	3.03	93.93	H
Diredawa	**D.D**	151	126.6	119.2	2.98	92.38	H
Harar	**Harai**	178	118.3	150.3	NA	NA	NA

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.

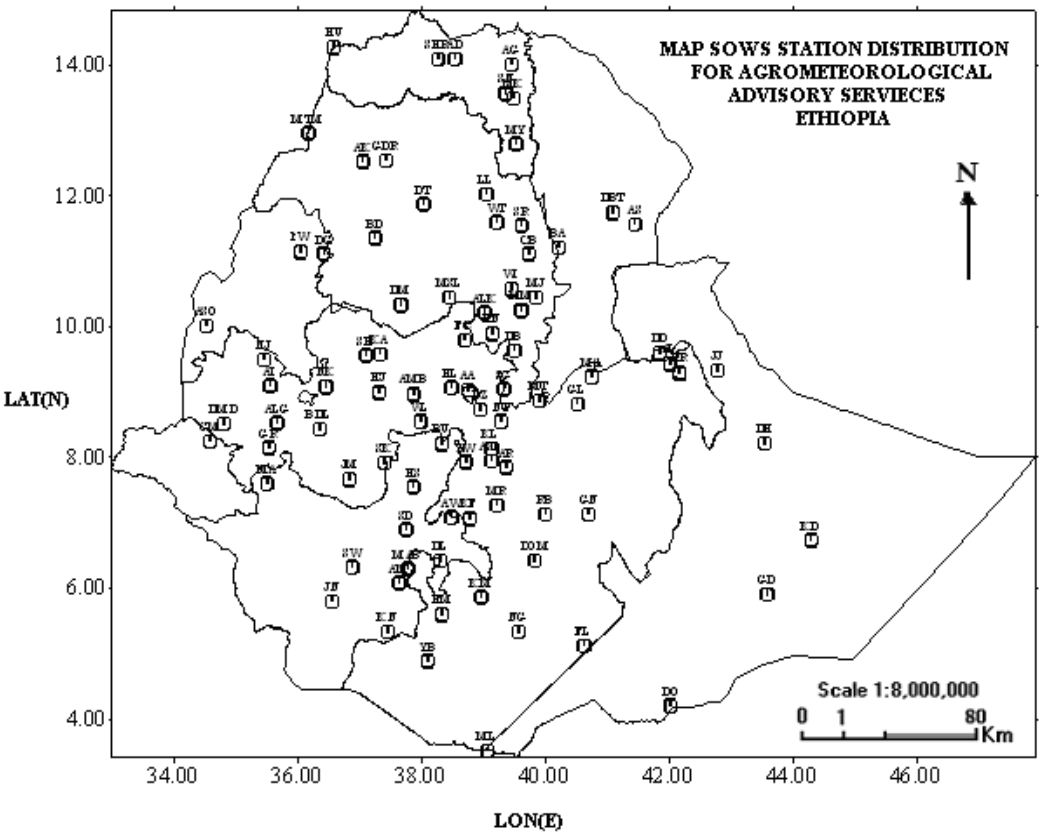
DEKAD: - First or second ten days or the remaining days of a month.

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

1