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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 በጋ 2006/2007

በመደበኛ ሁኔታ የበጋ ወቅት ፀሐያማና ደረቅ ሲሆን አልፎ አልፎ ያልተጠበቀ ዝናብ የሚታይበት ነዉ። ወቅቱ እ.ኤ.አ ከኦክቶበር እሰከ ጃንዋሪ ያለዉን ጊዜ ሲያጠቃልል የሀገሪቱ ደቡብና ደቡብ ምስራቅ ዝቅተኛ ቦታዎች በመደበኛ ሁኔታ ዝናብ የሚገኝበት ነዉ። በሀገሪቱ መኸር አብቃይ አካባቢዎች የሰብል ስብሰባና ድህረ ሰብል ስብሰባ የሚካሄድበት ሲሆን በደቡብና ደቡብ ምስራቅ የአርብቶ አደሩና ከፊል አርብቶ አደሩ አካባቢ ማለትም እነደ ሞያሌ ነገሌና ያቤሎ ባሉት አካባቢዎች መጠነኛ የሰብል ልማት እንቅስቃሴና ለከብቶች የግጦሽ ሣርና ዉኃ የሚሆን ዝናብ የሚያገኙበትና ዉኃን በተለያየ ዘዴ የሚያከማቹበት ወቅት ነዉ። የበጋዉ የአየር ጠባይ ለበሽታ መከሰት አመቺ የሆኑት እንደ ለካፊ ተዋስያን (Pest) በበሽታ በቀላሉ ለመለከፍ የተመቻቸ አዝዕርት (Host) ካገኘ አመቺ የአካባቢ ክስተቶች (Environment) ጊዜን (Time) ባገናዘበ ሁኔታ ከተመቻቸ አመቺ የሆነ የአየር ሁኔታ ሲሆን ደረቅና አመቺ የሆነ የበጋ አየር ለሰደድ እሳት መከሰትና መስፋፋት አመቺ ሁኔታን የሚፈጥር ነዉ። ወቅቱ ዝቅተኛዉ የሙቀት መጠን በተለይ በሰሜን ምስራቅ በመካከለኛዉ በምሥራቅና ደቡብ ከፍተኛ ቦታዎች የመዉረድ ዕድሉ የሚስፋበት ነዉ።

እ.ኤ.አ ኦክቶበር 2006 ከጥቂት የመካከለኛዉና ምዕራብ ኦሮሚያ፣ የደቡብ ብሔር ብረሰቦችና ህዝቦች ክልል ሰሜን ምሥራቃዊ ክፍል፣ ከፊል የአፋር ክልልን ጨምሮ ከነበረዉ ከመደበኛዉ በታች የሆነ ዝናብ በስተቀር በአብዛኛዉ የሀገሪቱ ክፍል መደበኛና ከመደበኛ በላይ የሆነ ዝናብ መታየቱ በማደግ ላይ ላሉና በቅርቡ ለተዘሩ ሰብሎች በጎ ጎን ቢኖረዉም፤ በተለይ በወሩ የመጨረሻ አሥር ቀናት በብዙ አካባቢዎች ላይ ከባድ ዝናብ ተመዝግቦ ነበር። ለምሳሌ ከዘጋቢ ጣቢያዎቻችን ወደ 28 የሚደርሱ ጣቢያዎች ከ30 -74.4 ሚ.ሜ ዝናብ በአንድ የዝናብ ቀን ብቻ ተመዝግቦ ነበር። ይህም ሁኔታ በተለይ ሰብል በተዳረሰባቸዉ አካባቢዎች ፍሬዉን በማርገፍ እንዲሁም የሰብል ስብሰባ ሂደቱን በማደናቀፍ የማይናቅ አስተዋፅኦ እንደሚኖረዉ ይታመናል። በወሩ ዉስጥ አንዳንድ አካባቢዎች የደረሰ ጉዳት ዘግበዉ ነበር። ለምሳሌ በብላቴ የነበረዉ ከባድ ዝናብ ዛፎችን በመነቃቀል፣ በባህርዳር በረዶ ቀላቅሎ የጣለዉ ዝናብ በበቆሎ ሰብልና በሌሎች ዕፅዋት ላይ ጉዳት አድርሷል። በአልጌ በረዶ ቀላቅሎ የጣለዉ ዝናብ በበቆሎ፣ በባቄላና በአተር ላይ ጉዳት አስከትሏል። በበደሌ በደረሰ ሰብልና በበቆሎ አዝመራ ላይ ጉዳት አስከትሎ ነበር። በጅንካ በጤፍ ማሳ ላይ ከፍተኛ ጉዳት አስከትሏል። በአቦምሳ በደረሱ ሰብሎችና በእህል ክምር ላይ ጉዳት አድርሷል። እንዲሁም በጊናገር በባቄላ፣ ምስርና ጤፍ እዝመራ ላይ ጉዳት አስከትሎ ነበር። የአርብቶ አደሩንና ከፊል የአርብቶ አደሩን አካባቢ በተመለከተ በወሩ መጨረሻ ላይ በደጋማ አካባቢዎች ላይ የጣለዉ ዝናብ ለዋቢ ሸበሌ ወንዝ ሙላት ምክንያት በመሆን በሰብልና እንስሳት ላይ ጉዳት አስከትሎ ነበር። የእርጥበት ሁኔታን ስንመለከት በዚህ በኦክቶበር ወር ከጥቂት የመካከለኛዉ፣ የምስራቅ ትግራይ እና አማራ እንዲሁም የአፋርን ሰሜናዊ አጋማሽ የሀገሪቱ ክፍሎች በስተቀር በአብዛኛዉ የሀገሪቱ ክፍሎች ከመካከለኛ እስከ ከፍተኛ የእርጥበት ሁኔታ (moist to humid) የታየበት ወር ነዉ(Fig 1 ይመልከቱ) ። በመሆኑም በአርብቶ አደሩና ከፊል አርብቶ አደሩ አካባቢ ማለትም እንደ ያቤሎ፣ ሞያሌ፣ ሚጋና ነገሌ ባሉት (የመዝሪያ ጊዜያቸዉ ከመስከረም መጨረሻ እስከ

ጥቅምት) የሚዘልቅባቸዉ አካባቢዎቸ አመቺ ሁኔታን ሊፈጥር ይችላል። ዝቅተኛ የአየር ሙቀትን በተመለከተ መረጃቸዉ ከሚደርሰን ጣቢያዎች ከመካከለኛዉ እንደ ደብረብርሃን፣ ፍቼ፣ ከሰሜን ምስራቅ እንደ ወገልጤናና አምባ ማርያም ባሉት ደጋማ ቦታዎች ከ 5 ዲ. ሴ. በታች የሆነ ዝቅተኛ የሙቀት መጠን መዝግበዉ ነበር። ይህም ሁኔታ በማሳ ላይ ባሉ አዝርዕት ጤናማ ዕድገት ላይ አሉታዊ ተፅዕኖ እንደሚኖረዉ ይታመናል።

እ.ኤ.አ በኖቨምበር 2006 በአብዛኛዉ የደቡብ ብሄር ብሄረሰቦች ህዝቦች ክልል፣ በሶማሌ፣ በጥቂት የምዕራብ ኦሮሚያ አካባቢዎች፣ በአንዳንድ የአማራ ኪስ ቦታዎች እንዲሁም ጥቂት የምዕራብ ቤንሻንጉል ጉሙዝ አካባቢዎችን ጨምሮ የታየዉ መደበኛና ከመደበኛ በላይ የሆነ ዝናብ ባሁኑ ወቅት የዝናብ ጊዜአያቸዉ ለሆነዉ ለደቡብ ብሄር ብሄረሰቦች ሕዝቦች ክልል እና ደቡብ ኦሮሚያ አካባቢዎች በተለያየ የእድገት ደረጃ ላይ ላሉ ሰብሎች በጎ ጎን የነበረዉ ሲሆን በደቡብና ደቡብ ምስራቅ የአገሪቱ ክፍሎች ለግጦሽ ሣርና ለመጠጥ ዉኃ አቅርቦት አወንታዊ ጎን ነበረዉ። ሆኖም በወሩ ዉስጥ በአንዳንድ የምዕራብ፣ የደቡብ ምዕራብ እና ደቡብ ኦሮሚያ አካባቢዎች 30-46 ሚ.ሜ ዝናብ በአንድ የዝናብ ቀን ብቻ ተመዝግቦባቸዉ ነበር። ይህም ከበድ ያለ ዝናብ ከምዕራብ (በደሌ፣ ሰኮሩ) እንዲሁም በሞጣ በአንዳንድ አካባቢዎች የጤፍ ሰብሎች ላይ ጉዳት ማድረሱ ከስፍራዉ በደረሰን መረጃ ማወቅ ተችሏል። የእርጥበት ሁኔታን ስንመለከት በኖቨምበር ወር በአብዛኛዉ የሀገሪቱ ሰሜናዊ አጋማሽ የታየዉ ደረቅ የእርጥበት ሁኔታ (Dry to very dry moistere status)(Fig 2 ይመልከቱ) በተጠቀሱት አካባቢዎች በመካሄድ ላይ ላለዉ የሰብል ስብሰባና ድህረ ሰብል ስብሰባ ላይ በጎ ጎን ነበረዉ። በሌላ በኩል በሀገሪቱ በአብዛኛዉ የደቡብ ብሄር ብሄረሰቦችና ህዝቦች ክልል በደቡብ ኦሮሚያ እንዲሁም በሶማሌ አካባቢ ጥሩ የእርጥበት ሁኔታ (moist to humid) ታይቶ ነበር (Fig 2 ይመልከቱ)። ይህም ሁኔታ በደቡብና በደቡብ ምስራቅ ቆላማ ሥፍራዎች ለግጦሽ ሣርና ለመጠጥ ዉኃ አቅርቦት ጠቃሚታ ነበረዉ። የአየር ሙቀትን በተመለከተ በዚህ ወር በአንዳንድ የመካከለኛዉ እና የሰሜን ምስራቅ ከፍተኛ ቦታዎች ከ 5 ዲ.ሴ. በታች የሆነ በጣም ዝቅተኛ ሙቀት የተመዘገበ ሲሆን ይኸዉም ከ 2-7 ተከታታይ ቀናት ነበር። በተጨማሪም እንደ ደብረ ብርሃን እና አለማያ ባሉት ደጋማ ሥፍራዎች ዝቅተኛ የሙቀት መጠን ከ0 ዲ.ሴ. በታች እስከ -2.5 ዲ.ሴ. ከ1-2 ተከታታይ ቀናት የወረደበት ሁኔታ ነበር። ይህም ሁኔታ በአዝርዕት ላይ አሉታዊ ጎን እንደሚኖረዉ እሙን ነዉ።

እ.ኤ.አ በዲሴምበር 2006 በአብዛኛዉ የአገሪቱ ክፍል መደበኛና ከመደበኛ በላይ የሆነ የዝናብ መጠን ነበር የታየዉ። ይህም ሁኔታ በአንዳንድ አካባቢዎች እድገታቸዉን ላልጨረሱ አመታዊ ሰብሎች እና ለቋሚ ተክሎች በጎ ጎን ሊኖረዉ የሚችል ሲሆን፣ በአንፃሩ በሰብል ስብሰባዉና ድህረ ሰብል ስብሰባዉ ላይ አልፎ አልፎ አሉታዊ ተፅዕኖ እንደሚኖረዉ እሙን ነዉ። በተጨማሪም በአንዳንድ ኪስ ቦታዎች የነበረዉ ንፋስ የተቀላቀለ ከባድ ዝናብ በተለይ በሁለተኛዉ አስር ቀናት መግቢያ ላይ በበደሌ በቡናና ጤፍ ሰብል ላይ፣ በጊናገር በአጠቃላይ በሰብል ላይ በብላቴ በረዶና ንፋስ ቀላቅሎ የጣለዉ ኃይለኛ ዝናብ ዛፎችን ነቃቅሎ ከመጣሉም ባሻገር በመስኖ የትንባሆ ሰብል ላይ ከፍተኛ ጉዳት ማድረሱን ከደረሰዉ ሪፖርት መረዳት ተችሏል። የእርጥበት ሁኔታን ስንመለከት በዲሴምበር ወር በአብዛኛዉ የደቡብ ብሄር ብሄረሰቦች ህዝቦች ክልል፣ ደቡብ ጋምቤላ፣ በመካከለኛዉ እንዲሁም በአንዳንድ የምዕራብ ኦሮምያ የተከሰተዉ ጥሩ የእርጥበት ሁኔታ (Humid to moist status)(Fig 3 ይመልከቱ) በተጠቀሱት አካባቢዎች በቋሚ ሰብሎችና እንዲሁም

በተለያዩ የዕድገት ደረጃ ላሉ ሰብሎች በጎ ጎን ነበረዉ። ቢሆንም በአንዳንድ ሰብል ስብሰባና ድህረ ሰብል ስብሰባ ባልተካሄደባቸዉ አካባቢዎች ላይ አሉታዊ ተፅዕኖ አሳድሯል። የአየር ሙቀትን በተመለከተ በአንዳንድ ከሰሜን እንደ መቀሌ፣ ከምስራቅ ከፍተኛ ቦታዎች እንደ አለማያ፣ ከመካከለኛዉ እንደ ደብረዘይት፣ ፍቼ፣ መሀልሜዳ፣ ደብረ ብርሀን፣ ኮፊሌ ከሰሜን ምስራቅ እንደ ወገል ጤና ባሉት አካባቢዎች ዝቅተኛ የሙቀት መጠን ከ5 ዲ.ሴ. በታች የተመዘገበ ሲሆን በመሀልሜዳ ከ0 ዲ.ሴ. በታች እስከ -0.8 ዲ.ሴ. ድረስ የወረደበትም ሁኔታ ነበር።

እ.ኤ.አ በጃንዋሪ 2007 በተለይ የበልግ የእርሻ እንቅሥቃሴያቸዉን ቀደም ብለዉ ለሚጀምሩት እንደ ደቡብ ትግራይ፣ ሰሜን ምሥራቅ አማራና የደቡብ ብሄር ብሄረሰቦችና ሕዝቦች ክልል በወሩ ዉስጥ ከ 5-12 በሆነ የዝናብ ቀናት ዝናብ ማግኘታቸዉና በአንዳንድ አካባቢዎች የሥርጭቱ ደህና መሆንና መጠኑም ከ40-121 ሚ.ሜ. በደረሰባቸዉ አካባቢዎች ለዘር አመቺ ሁኔታን እንዲሚፈጥርላቸዉ እሙን ነዉ። እንደሚታወቀዉ ከላይ በተጠቀሰዉ ወር በደቡብ ትግራይ፣ በደቡብ ብሄር ብሄረሰቦችና ሕዝቦች ክልል አንዳንድ ሥፍራዎች እንዲሁም በሰሜን ምሥራቅ ኢትዮጵያ እንደ መሐል ሜዳ፣ ወገል ጤና ሲሪንቃና ባቲ በመደበኛ ሁኔታ የዘር ጊዜያቸዉ ነዉ። እንዲሁም በቆላማዉ የአርብቶ አደሩና ከፊል አርብቶ አደሩ አካባቢዎች እንደ ነገሌ፣ ሚጋና ሞያሌ ባሉት አካባቢዎች የእርጥበቱ መኖር ለማሣ ዝግጅት አመቺ ሁኔታን ይፈጥርላቸዋል። የሙቀት መጠንን በተመለከተ አንዳንድ የመካከለኛዉ፣ የምስራቅና የሰሜን ምሥራቅ ከፍተኛ ቦታዎች በወሩ ዉስጥ ከ5-16 ያህል ጊዜ ከ 5 ዲ.ሴ በታች ዝቅተኛ ሙቀት የመዘገቡ ሲሆን፣ ደብረ ብርሃን ከዜሮ በታች እስከ -3.0 ዲ. ሴ ወርዶ ነበር። ይህም በአጠቃለሰይ በበጋ ወቅት ከታየዉ ዝቅተኛ የሙቀት መጠን በጠም ዝቅተኛዉ ነዉ።

በአጠቃላይ በወቅቱ አልፎ አልፎ በታዩት አንዳንድ ጎጂ ክስተቶች ማለትም እንደ ወቅቱን ያልተጠበቀ ዝናብ፣ በረዶ፣ እና ጎርፍ እንዲሁም በማሳ ላይ የዉኃ መተኛት ሣቢያ ከደረሱት የአዝርእት ጉዳቶች በስተቀር አጠቃላይ ሁኔታዉ ለወቅቱ የግብርና እንቅስቃሴ ምቹ ነበር። እ.ኤ.አ በኦክቶበርና በኖቬምበር 2006 ተራዝሞ የነበረዉ የእርጥበት ሁኔታ ለቋሚ ሰብሎችና በተለያየ የእድገት ደረጃ ላይ ላሉ ሰብሎች ጠቀሜታ ነበረዉ። በተጨማሪ ዘግይተዉ ለተዘሩትና በጎርፍ ክሥተት ሣቢያ እንደገና ለተዘሩት አዝርእት እድገታቸዉን እንዲጨርሱ እገዛ ነበረዉ።

ይሁንና ከ30 - 120 ሚሊ ሜትር የሚደርስ ከባድ ዝናብ በኦክቶበርና በኖቬምበር ወር በአንድ የዝናብ ቀን ተመዝግቧል። ይህም ሁኔታ በሰብሎችና በከብቶች ላይ ጉዳት አድረሷል። ለምሳሌ በኦክቶበር ወር በብላቴ፣ በባህርዳር፣ አልጌ፣ በደሌ፣ ጂንካ፣ አቦምሳና ጊናጋር የጣለዉ ከባድ ዝናብ በበቆሎ፣ በባቄላ፣ አተር፣ በጤፍና በምስር እንዲሁም በቋሚ ሰብሎችና በዛፎች ላይ ጉዳት መድረሱን ከደረሰን የአዝዕርት መረጃ ለማወቅ ተችሏል። በተጨማሪም አ.ኤ.አ በኖቬምበር 2006 የተመዘገበዉ ከባድ ዝናብ በበደሌ በሰኮሩና በሞጣ በጤፍ ላይ ጉዳት ማድረሱን ከሥፍራዉ በደረሰን መረጃ ማወቅ ተችሏል። የሰፋ ቦታን ባያካትትም እ.ኤ.አ በዲሴምበር 2006 በአንዳንድ ኪስ ቦታዎች ንፋስ ቀላቅሎ የጣለዉ ዝናብ በበደሌ በቡናና በጤፍ ላይ በጊናአገርና በብላቴ በቋሚ ሰብሎችና በመስኖ በሚለማ የትምባሆ እርሻ ላይ ጉዳት መድረሱን ከሥፍራዉ በደረሰን መረጃ ማወቅ ተችሏል። በአርብቶ አደሩና በከፊል አርብቶ አደር በሆኑት የደቡብና ደቡብ ምስራቅ ቆላማ ሥፍራዎችን በተመለከተ በአካባቢዉ አጠራር በ"ዴየር" የዝናብ ወቅት የታየዉ እርጥበት ጥሩ ነበር። አጠቃላይ የእርጥበቱ ሁኔታ ከላይ በተጠቀሱት ቦታዎች ለግጦሽ ሣርና

ለመጠጥ ዉኃ አቅርቦት በጎ ጎን ነበረዉ። ይሁንና እ.ኤ.አ በኦክቶበር 2006 መጨረሻ በከፍተኛ ቦታዎች ላይ የነበረዉ ከባድ ዝናብ ለዋቢ ሸበሌ ወንዝ መሙላት ምክንያት ሆኖ ነበር። በመሆኑም የወንዙ ሙላት በወንዙ ዳርቻ አካባቢዎች ባሉ ሰብሎች ላይና ከብቶች ላይ ጉዳት አስከትሎ ነበር።

ዝቅተኛ የአየር ሙቀትን በተመለከተ ቀደም ካሉ አስር አመታት ዝቅተኛ የአየር ሙቀት ጋር ሲነፃፀር በዚህ ዓመት ማለትም በ 2006 ዝቅተኛ የአየር ሙቀት ጎልቶ የወረደበት ሁኔታ አልነበረም ለምሳሌ በ2001 ዓ.ም በደብረ ብርሃን ጣቢያ ዝቅተኛ የአየር ሙቀት ከ0 ዲ.ሴ. በታች እስከ -7.6 ዲ.ሴ. ወርዶ ነበር። በዚህ አመት ግን በአጠቃላይ በወቅቱ የታየዉ በጣም ዝቅተኛ የሙቀት መጠን ከዜሮ በታች -3.0 ዲ.ሴ. ሲሆን ይኸዉም በደብረ ብርሃን የተመዘገበዉ ነበር።

በአጠቃላይ ከላይ ከተጠቀሰዉ አግሮ ክላይማቲክ ትንተና በመነሳት በአአብዛኛዉ መኸር አብቃይ በሆኑት የሀገሪቱ ክፍሎች ላይ አዝመራዉ በመልካም ሁኔታ ላይ ነበር። በመሆኑም የዘንድሮዉን ምርት ከአለፈዉ አመት ምርት ጋር ሲነፃፀር በያዝነዉ አመት የተሻለ ምርት ተሰብስቦ ወደ ጉተራ እንደሚገባ ይጠበቃል። እንዲሁም የአርብቶ አደሩና ከፊል አርብቶ አደር በሆኑት የደቡብና የደቡብ ምስራቅ የሀገሪቱ ክፍሎችን በተመለከተ ከደረሱን መረጃዎችና የዕፅዋትን ሽፋን አመልካች ከሆነዉ የNDVI ስዕል (ምንጭ United States Geological Survey) በመነሳት በያዝነዉ አመት የበጋ ወር የግጦሽ ሣርና የመጠጥ ዉኃ አቅርቦት ከላይ በተጠቀሱት ቦታዎች በመልካም ሁኔታ ላይ እንደነበር ለመረዳት ተችሏል።

BEGA 2006/07
SUMMARY

Under normal circumstances the season Bega 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 southern and south-eastern lowlands. Harvest and post harvest activities are the major practises over most parts of Meher growing areas. It is a cropping time for southern and south eastern lowlands of agro pastoral areas like Yabello, Negelle, and Moyale. Besides, it is time to perform water-harvesting activities for pastoral and agro pastoral areas of southern and south-eastern lowlands. The weather situation could favour the out break of pests if the conditions are conducive like untimely rain, erratic rainfall distribution, favourable environment and the pest itself. The dry and windy Beg's weather situation is favourable for the occurrence and spread of fire. There is a possibility of frost hazard during the season, mainly over north-eastern, central, eastern and southern highlands.

During the month of October 2006, with the exception of some areas of central and western Oromia, north-eastern parts of SNNPR, including parts of Afar the observed normal to above normal rainfall over most parts of the country could favour crops which are found at different pehonological stages and recently sown crops in some areas. Nevertheless the observed heavy falls in most parts of the country particularly during the third dekad of October resulted in crop damage and live stock losses. For instance, about 28 stations from the reporting station recorded heavy falls ranging from (30-74mm in one rainy days. Therefore, this condition could have a negative impact on crop which is ready to harvest by shatteing the seed and hindering the harvest and post harvest activities. Some areas recorded crop damage during the month under review. For instance Bilate, Bahirdar, Alge, Bedele, Jinka, Abomsa and Gina Ager reported annual (Maize, Bean, Pea, Teff and Lentil) and Perennial crops (Trees) damge. Regarding pastoral and agro pastoral areas the observed heavy fall over highlands especially towards the end of the month caused overflow of Wabishebele River, therby resulting crop damge and livestock losses in areas around the river bank .Regarding moisture status, moist to humid moisture status has been observed over most parts of the country except few areas of central, eastern Tigray and Amhara and northern half of Afar (Fig1). Thus the aforementioned wet condition could favour the ongoing agricultural activities over pastoral and agro pastoral areas like Yabello, Moyalle, Mega and Negelle (Their sowing time extends from end of September to end of October). With regard to air temperature, among the reporting stations, central like DebreBrhan, Fitche, northeastern like Wegeltena, AmbaMariam recorded extreme minimum temperature below 5^0C . This situation could have negative effect for form normal growth and development of the existing crops.

During the month of November 2006, Generally, the observed normal to above normal rainfall over the areas of SNNPR, Somali, some areas of western Oromia, pocket areas of Amhara, as well as some areas of western Bensahngul-Gumuz, would have significant contribution for crops which are attaining at different phenological stages, more over, it also favored for the availability of pasture and drinking water over south and southeastern parts of the country. Besides, the observed heavy fall ranging from (30-46) mm in one rainy over the areas of western, southwestern, and southern Oromia. Bedelle. Sekoru and Mota reported crop (teff) damage due to the above mentioned heavy fall. Regarding moisture status, the observed dry to very dry moisture over most parts of northern half of the country (Fig2), would have a positive contribution for the ongoing harvest and post harvest actiivities on the aforementioned areas. Besides, the observed moist to

humid moisture status over most parts of SNNPR, southern Oromia, and Somali would have significant contribution for the availability of pasture and drinking water for south and south eastern lowlands of the country. With regard to air temperature, central and northeastern highlands of the country experienced extreme minimum temperature below 5^0C for 2-7 consecutive days. Moreover, Debre Brhan and Alemya exhibited extreme minimum temperature below 0^0C lowering up to -2.5^0C for 1-2 consecutive days. Thus this condition could have a negative impact form normal growth and development of plants.

During the month of December, 2006, normal to above normal rainfall has been observed over most parts of the country. This situation would have a positive contribution on annual crops and perennial plants which are not attaining their maturity at some pocket areas and for perennial plants as well. On the other hand, it could have a negative impact on harvest and post harvest activities in some pocket areas. Pursuant to phenological report, the observed heavy falls accompanied with strong wind particularly during the first half of the second dekad of the month resulted in crop damage in some pocket areas. Fore instance, Bedelle reported coffee and teff crop damage due to heavy fall with strong wind; Gin Ager reported crop damage and Blate reported perennial crop damage including irrigated tobacco damage due to hailstorm accompanied with strong wind. Regarding to moisture status condition the observed (Humid to moist moisture status) over most parts of SNNPR, southern Gambella, central and some areas of western Oromia (Fig3)could have a positive contribution for perennial crops and crops which are attaining at diffent penological stages over the aforementioned areas. However, it would have a negative impact on harvest and post harvest activities were not active. With regard to air temperature, some areas of northern like Mekelle, eastern highlands like Almaya central like DebreZeit, Fitche, Mehal Meda DebreBrhan, Kofelle, northeastern like Wegel Tena, recorded extreme minimum temperature below0 ^{0}C . Moreover MehalMeda experienced extreme minimum temperature below 0^0C lowering up to -0.8^0C.

During the month of January 2007 the observed wet condition (in 5-12 rainy days during the month) and better rainfall amount (40 – 121 mm of monthly cumulative) could favor early Belg season's activities like land preparation and sowing activities particularly over South Tigray, northeastern Ethiopia like Mehal Meda, Wegel Tena, Sirinka and Bati including SNNPR in areas where the activities start earlier under normal circumstance. Besides, the observed wet condition could favor land preparation in some areas of pastoral and agro pastoral areas like Neghele, Mega and Moyale. Regarding extreme minimum temperature most parts of central highlands, eastern and northeastern highlands experienced extreme minimum temperature less than 5°C for 5-14 days during the month. Moreover Debre Brhan exhibited extreme minimum temperature below 0°C lowering up to –3°C which is the lowest value during the season as a whole.

Generally with the exception of the observed adverse condition like untimely rainfall, hail damage, water logging, flooding as well as excess moisture on some areas of crop fields, the over all situation was favorable for season's agricultural activities. The extended wet condition observed during the month of October and November favored annual crops, which were at different phenological stages. Besides it had significant contribution for the late sown and replanted cereal and pulses in some flood prone areas. Nevertheless, the observed heavy falls (30-120 mm in one rainy day) particularly during the months of October and November resulted in crop damage and livestock losses. Fore instance pursuant to the crop phenological report made by NMA, some areas reported crop damage (Maize, Beans peas, teff and lentil including perennial crops and trees) due to heavy fall like Bilate, Bahirdar, Alge, Bedelle, Jinka, Abomsa, and Ginager during the month of October 2006. Besides heavy falls resulted in crop damage (Teff) in some areas like Bedelle, Sekoru and Mota during the month of November 2006. Moreover the observed heavy falls accompanied with strong wind in some pocket areas during the month of December 2006 resulted in crop damage in some areas like Bedelle (on Coffee and Teff), Ginager and Bilate (on perennial crops including irrigated Tobacco plant damage due to hailstorm accompanied with strong wind).

Regarding the situation of pastoral and agro pastoral areas of southern and southeastern lowlands the Deyr rain was in a good shape in most parts. As a result the cumulative moisture condition was sufficient in the aforementioned areas in terms of the availability of pasture and drinking water. Nevertheless, observed heavy fall over the highlands especially towards the end of the month of October caused overflow of Wabi Shebele river thereby, resulting in crop damage and livestock losses in areas around riverbanks.

With regard to the extreme minimum temperature, there was no significant drop of extreme minimum temperature as compared to that of the pervious six years (1998, 1999, 2001, 2003, 2005 and 2006) of the past ten-years air temperature data, which was lowering up to –7.6 in case of 2001. This year Debre Brhan exhibited extreme minimum temperature below 0°C lowering up to –3°C which is the lowest value during the season as a whole.

In general from the above agro climatic analysis we can confirm that the overall crop condition over most parts of Meher growing areas was in a good shape thereby the expected performance of yield would be better as compared to that of the previous year. In case of pastoral and agro pastoral areas of southern and southeastern Ethiopia the agro climatic analysis together with the observed NDVI picture (Source: United States Geological Survey) confirmed that the over all condition of pasture and drinking water was in a good performance in most parts of the aforementioned areas.

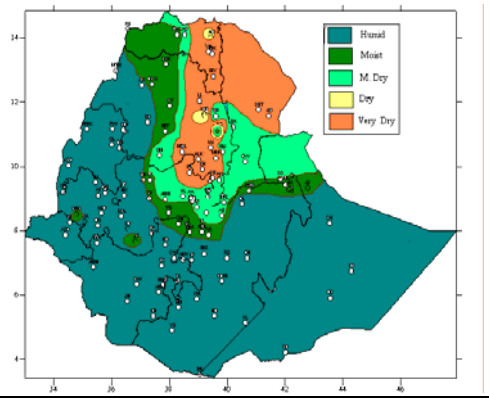


Figure 1 Moisture status for theth of Oc 2006

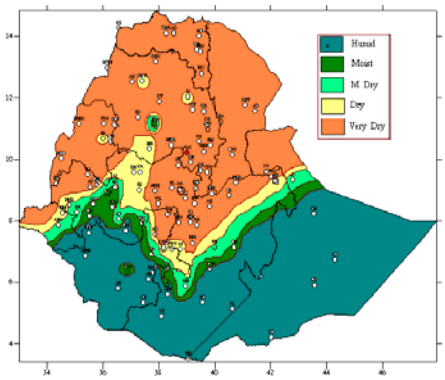


Figure 2 Moisture status for the th of Nove 2006

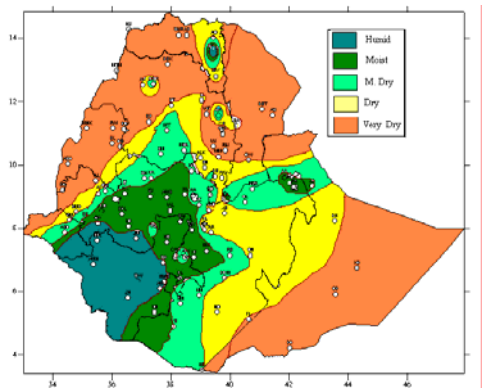


Figure 3 Moisture status for the month of December 2006

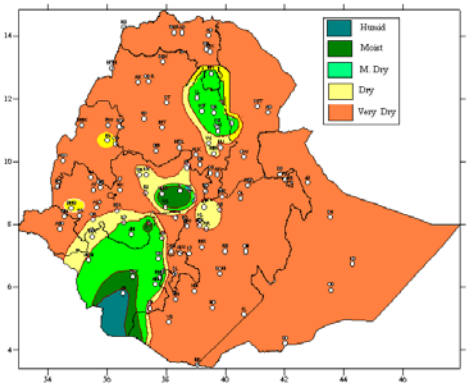


Figure 4 Moisture status fort the month of January 2007

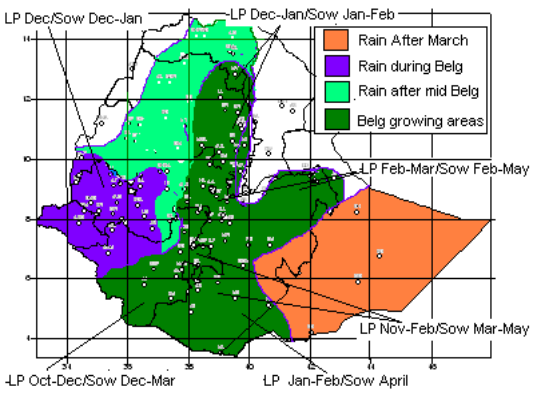


Figure 5 Belg growing areas of the country (the dark green shaded area)

The expected normal onset of Belg 2007 would have positive impact on the early season's agricultural activities in areas where Belg activities start earlier. The expected better performance of rain particularly during the month April would favor long cycle crops like maize and sorghum over central and western Oromia, most parts of northern half of SNNPR, Southern Benishangul - Gumuz and Gambela. Besides, it would have positive impact on the availability of pasture and drinking water on pastoral and agro pastoral areas of southern and southeastern lowlands. Therefore appropriate measures should be taken ahead of time in order to exploit the expected good moisture condition.

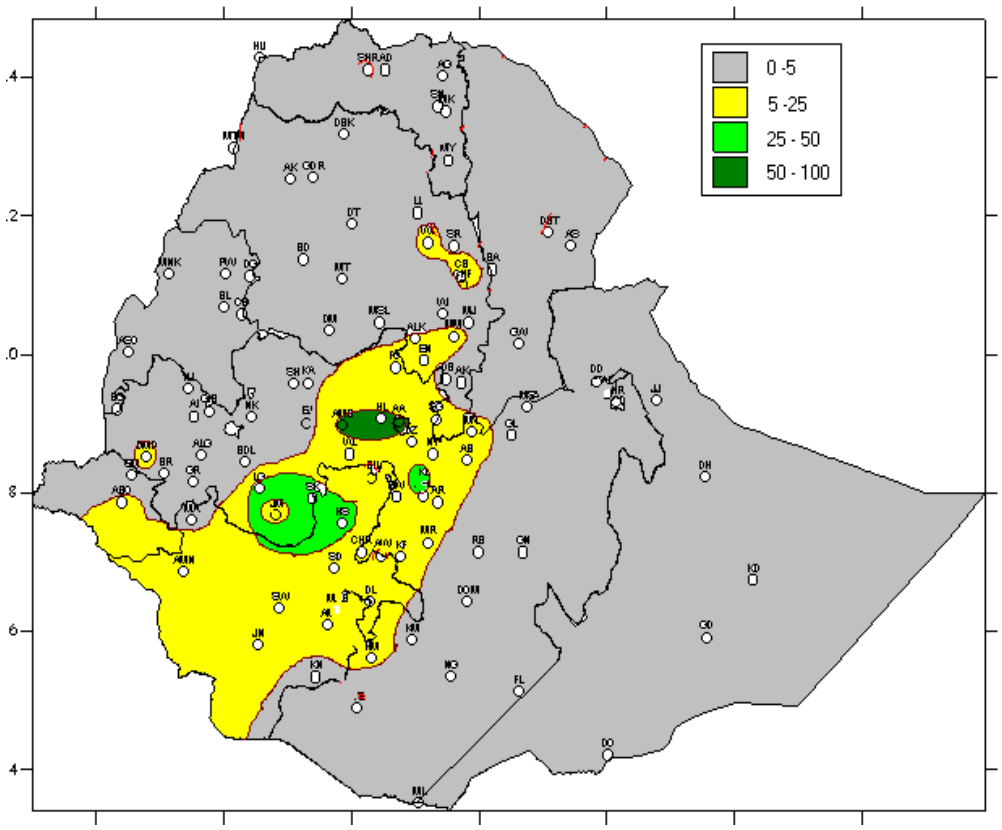


Fig 6 Rainfall distribution in mm (21-31 January 2007)

1. WEATHER ASSESSMENT

1.1 January 21-31, 2007

1.1.1 Rainfall Amount (Fig 6)

Only pocket area of central Oromia received 50-100mm rainfall. Pockets areas of central and western Oromia and northern SNNPR experienced 25-50mm rainfall. Most parts of SNNPR, northern, eastern and southwestern Oromia and southern and pocket area of eastern Amahra exhibited 5-25mm rainfall. The rest parts of the country received little or no rainfall.

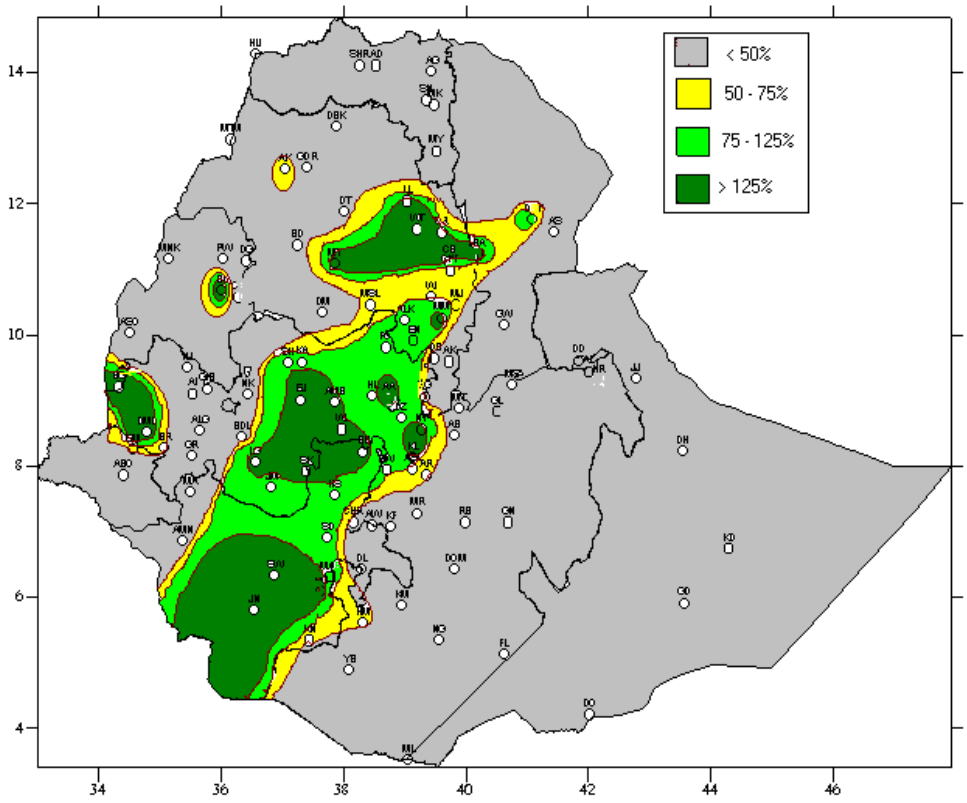


Fig 7 Percent of normal rainfall (21-31 January 2007)

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

1.1.1 Rainfall Anomaly (Fig7)

Most parts of northern, eastern, western and southwestern SNNPR, central and western Oromia, pocket area of southeastern Amahra, pocket areas of eastern Bensangul- Gumuz and pocket areas of western Afar received normal to above normal rainfall. The rest parts of the county experienced below normal to much below normal rainfall.

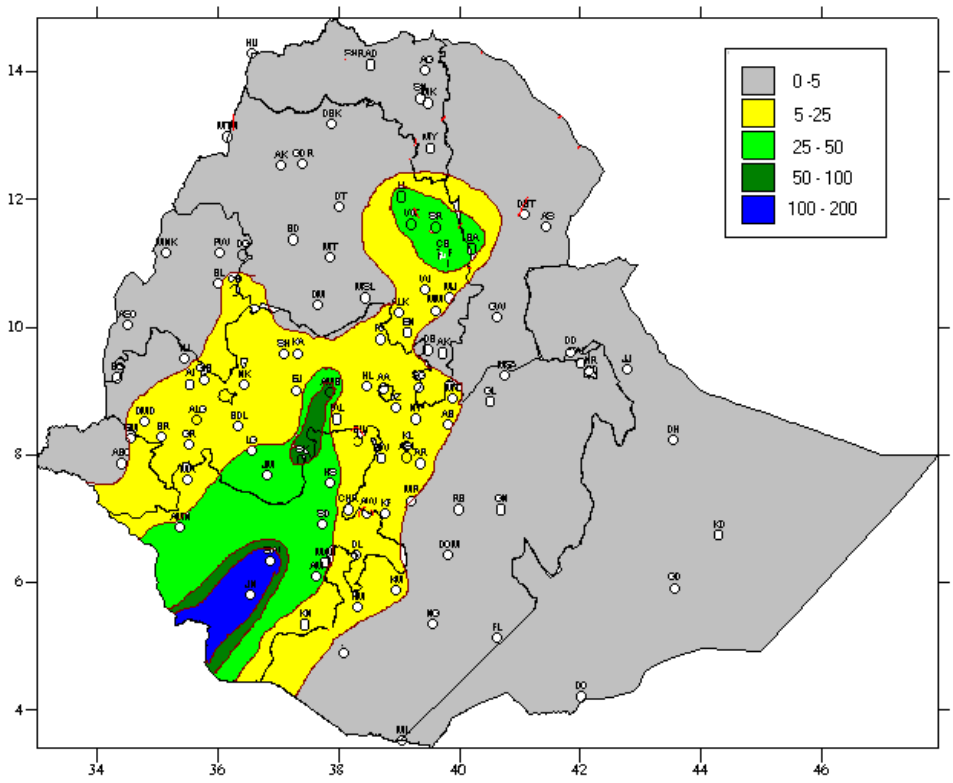


Fig 8 Rainfall Distribution in mm for the month of January 2007

1.2 January 2007

1.2.1 Rainfall Amount (Fig. 8)

Only some parts of southwestern SNNPR received 100-200mm of rainfall. Some parts of southwestern SNNPR and pocket area of western Oromia experienced 50-100mm of rainfall. Northern, western and southeastern SNNPR, western Oromia and pocket areas of eastern Amahra exhibited 25-50mm of rainfall. Southeastern SNNPR, southern, central and western Oromia, eastern Gambela, eastern Benshangul-Gumuz southeastern Amhara and western Afar received 5-25mm rainfall. The rest parts of the country exhibited little or no rainfall.

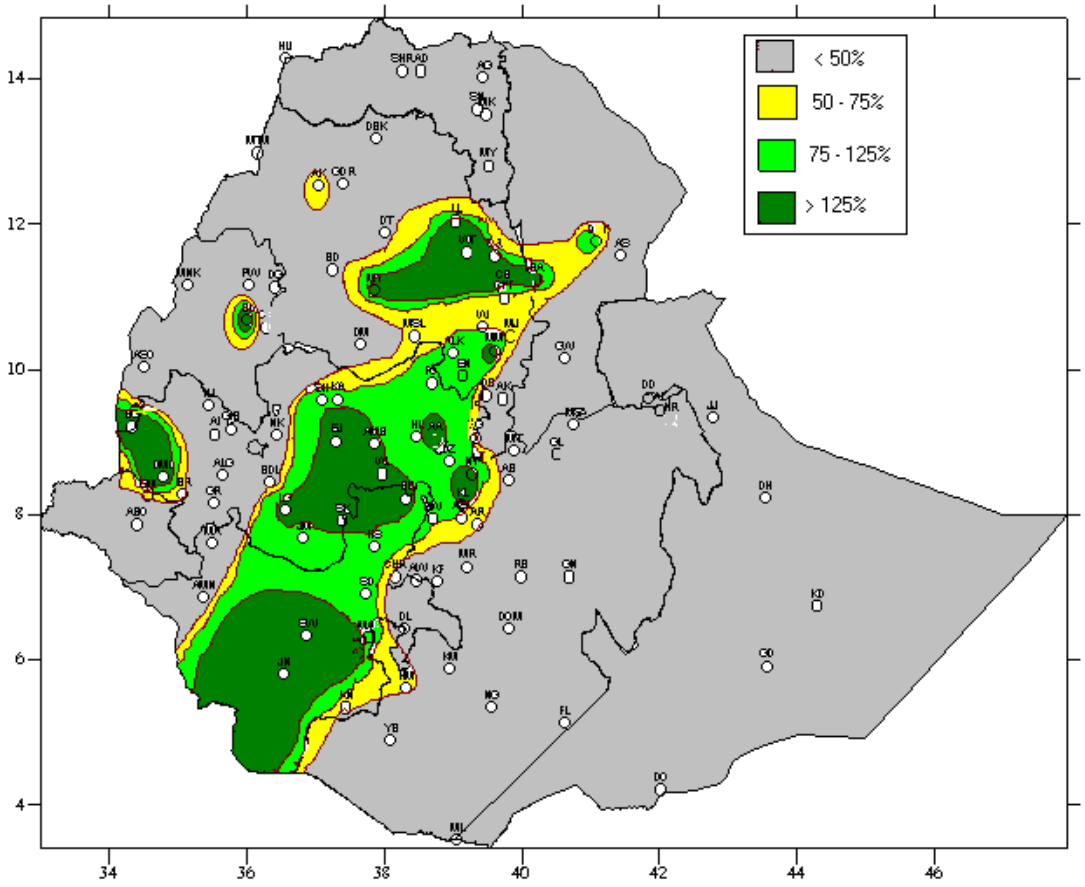


Fig. 9 Percent of Normal Rainfall for the month of January 2007

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)

Most parts of northern, eastern, western and southwestern SNNPR, central and western Oromia, pocket areas of southeastern Amhara, eastern Benshangul-Gumuz and western Afar received normal to above normal rainfall. The rest parts of the county exhibited below normal to much below normal rainfall.

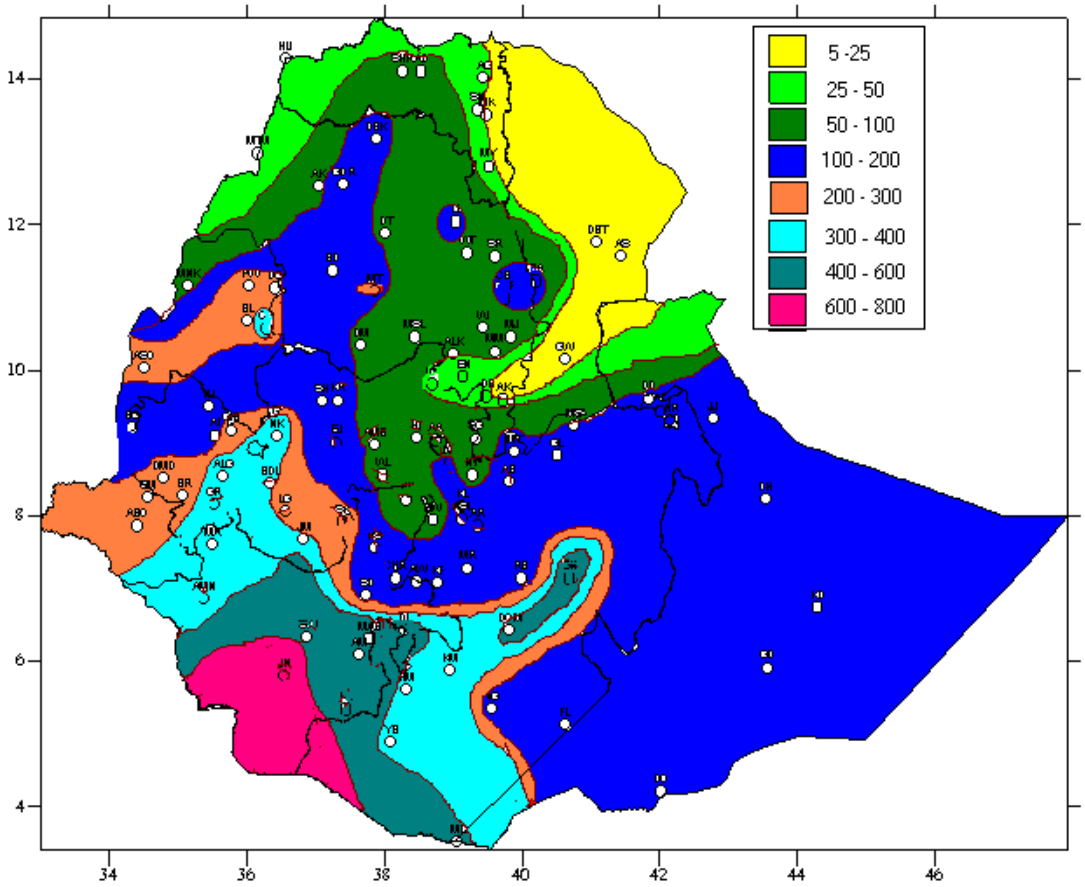


Fig 10 Rainfall Distribution in mm for Bega season 2006/07

1.3 Bega 2006/07

1.2.1 Rainfall Amount (Fig. 10)

Some parts of southwestern SNNPR and tip of southern Oromia received 600-800mm rainfall. Some parts of northern, western and northeastern SNNPR and southern and pocket area of southeastern Oromia exhibited 400-600mm rainfall. Western and eastern SNNPR, southeastern Gambela and western southern and southeastern Oromia experienced 300-400mm rainfall. Southern Gambela, western and eastern Benshangul-Gumuz, western and merge of southern and southeastern Oromia received 200-300mm rainfall. Southern and northeastern Benshnagul-Gumuz, western, southern, eastern and southeastern Oromia, southern and eastern Somali and northern, southwestern and pocket areas of eastern Amhara exhibited 100-200mm

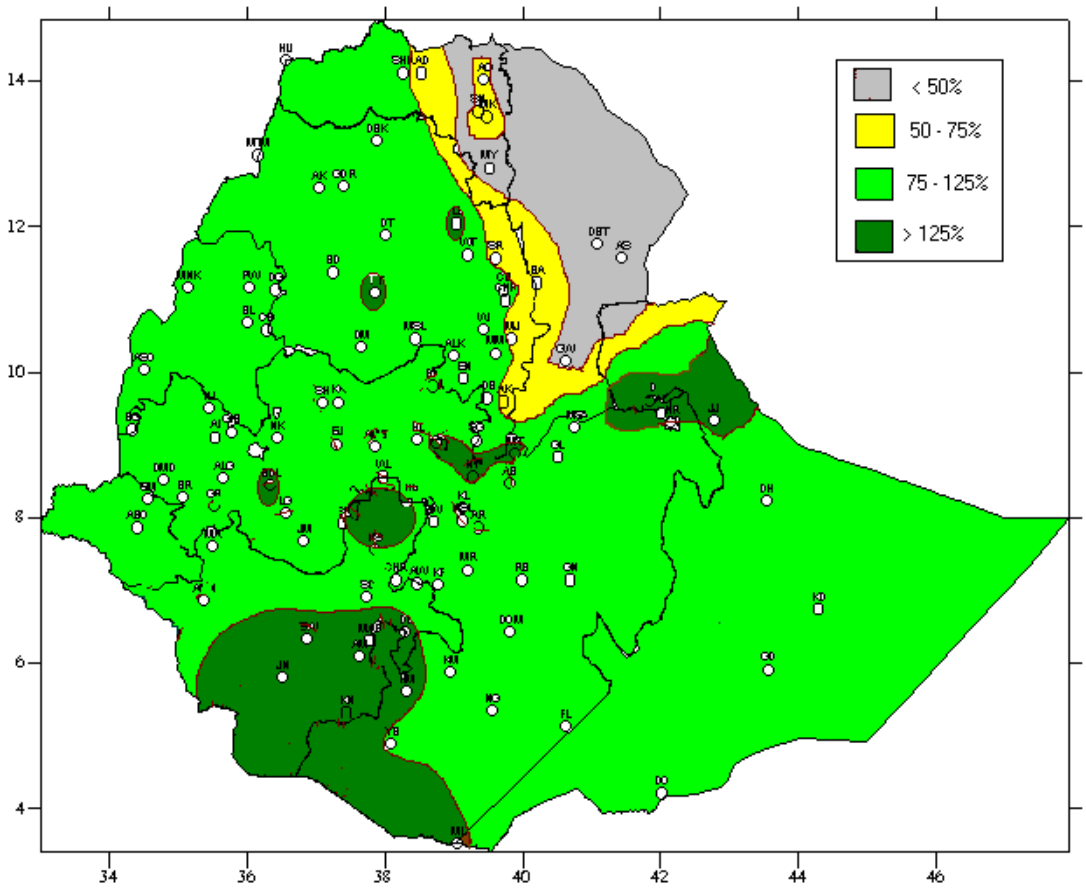


Fig. 11 Percent of Normal Rainfall for Bega 2006/07

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. 11)

With the exception of Afar, parts of northeast and southern parts of Tigray, parts of eastern and southeastern Amhara and parts of northern Somali received below to much below normal rainfall while the rest parts of the country experienced normal to above normal rainfall.

1.4 TEMPERATURE ANOMALY

With regard to the extreme minimum temperature, there was no significant drop of extreme minimum temperature as compared to that of the pervious six years (1998, 1999, 2001, 2003, 2005 and 2006) of the past ten-years air temperature data.

2. WEATHER OUTLOOK

2.1 For the month of February 2007

In February, with the exception of southeastern Ethiopia. Belg growing areas will receive rain showers. Southern highlands and eastern Amhara will have average rainfall of 50 -100 mm while Rift valley and the adjoining places will get 25-50 mm. However, northwestern northern western and south eastern Ethiopia will be under the governance of dry weather situation. In association with wet weather increment and the rain-bearing systems attain their strength various portions of the country are expected to acquire rainfall. In contrast, western, northwestern and southeastern parts of the country will be dominated by dry condition. Generally, Rift valley and neighboring areas will have normal to above normal rainfall. Hence, SNNPR, western and central Oromia, eastern Amhara and Tigray including the adjoining areas of Afar as well as Gambella will have average rainfall with above normal rainfall at few places. Moreover, western, Amhara, Tigray, Bensahgul-Gumuz, southern and eastern Oromia and northern Somali, are anticipated to have below normal rainfall though some areas have a possibility of getting near normal rainfall. On the other hand, southern Somali is expected to be below normal rainfall.

2.2 For Belg season 2007

Belg is a season from maid February to May, it is a main rainy season for south and south eastern portion of the country. During the Belg season northeastern and eastern parts of Ethiopia enjoy their seasonal rainy season. Belg is highly variable interms of onset cessation as well as spatial and temporal distribution.

For the upcoming Belg season different meteorological prediction centers predicted base on the latest observation and forecasts, the probability of maintaining El-Nino condition through Belg 2007 seasons is approximately 85 %. Therefore, Belg 2007 is likely under the influence of El-Nino condition.

Based the ENSO forecast and other potential predictors we try to select 8 analogue years which had similar trends to the current year 2006/2007. Out of 8 analogue years 1987, 1992, and 1985 are selected as best analogue years respectively. During those best analogue years, the overall rainfall performance over much of the country was normal to above normal rainfall. In general, the coming Belg season, much of the Belg rain-Benefiting areas and southern half of the country will have normal to above normal rainfall. Besides, western and northwestern portion of the country will get close to normal rainfall. However, due to the Belg high variable nature there will be dry spell in between.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Generally with the exception of the observed adverse condition like untimely rainfall, hail damage, water logging, flooding as well as excess moisture on some areas of crop fields, the over all situation was favorable for season's agricultural activities. The extended wet condition observed during the month of October and November favored annual crops, which were at different phenological stages. Besides it had significant contribution for the late sown and replanted cereal and pulses in some flood prone areas. Nevertheless, the observed heavy falls (30-120 mm in one rainy day) particularly during the months of October and November resulted in crop damage and livestock losses. Fore instance pursuant to the crop phenological report made by NMA, some areas reported crop damage (Maize, Beans peas, tiff and lentil including perennial crops and trees) due to heavy fall like Bilate, Bahir Dar, Alge, Bedelle, Jinka, Abomsa, and Ginager during the month of October 2006. Besides, heavy falls resulted in crop damage (Teff) in some areas like Bedelle, Sekoru and Mota during the month of November 2006. Moreover the observed heavy falls accompanied with strong wind in some pocket areas during the month of December 2006 resulted in crop damage in some areas like Bedelle (On Coffee and Teff), Ginager and Bilate (on perennial crops including irrigated Tobacco plantation damage due to hailstorm accompanied with strong wind).

Regarding the situation of pastoral and agro pastoral areas of southern and southeastern lowlands the "Deyr" rain was in a good shape in most parts. As a result the cumulative moisture condition was sufficient in the aforementioned areas in terms of the availability of pasture and drinking water. Nevertheless, observed heavy fall over the highlands especially towards the end of the month of October caused overflow of Wabi Shebele River thereby, resulting crop damage and livestock losses in areas around riverbanks.

In general from the above agro climatic analysis we can confirm that the overall crop condition over most parts of Meher growing areas was in a good shape thereby the expected performance of yield would be better as compared to that of the previous year. In case of pastoral and agro pastoral areas of southern and southeastern Ethiopia the agro climatic analysis together with the observed NDVI picture (Source: United States Geological Survey) confirmed that The over all condition of pasture and drinking water was in a good performance in most parts of the aforementioned areas.

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING BELG SEASON

Under normal circumstances, central, parts of northern highlands, eastern highlands, parts of central, southwestern and southern Ethiopia are known as Belg growing areas (Fig 5). Normally north Shewa, East and west Harargie, Arsi Bale, north and south Wello, Borena and SNNPR (Kembata, Hadiya, Wolayta, Gurage, Keffa and Bench) start their land preparation and sowing activities during December to February.

The anticipated normal onset of Belg 2007 would have positive impact on the early season's agricultural activities in areas where Belg activities start earlier. Therefore appropriate measures should be taken ahead of time in order to exploit the expected good moisture condition.

The expected moist condition and 67 - 80% probability of Belg rainfall over most parts of the country would favor the upcoming season's agricultural activities. The expected better performance of rain particularly during the month April would favor long cycle crops like maize and sorghum over central and western Oromia, most parts of northern half of SNNPR, Southern Benishangul - Gumuz and Gambela.

The expected normal cessation of Belg rain from most parts of Belg growing areas would favor early Meher season's agricultural activities like land preparation and sowing activities where the activities are under question. The anticipated 20 - 33% probability of below normal Belg rainfall and erratic nature of Belg rainfall distribution particularly over the lowlands would have negative impact on crop water requirements and favor the outbreak of pest and diseases as well. Therefore, the concerned personnel should design appropriate alternate measure ahead of time to minimize risks of water stress expected over the lowlands. Besides, appropriate preparedness measures and precaution should be undertaken to take judicious pest control measures ahead of time to minimize risks due to adverse weather condition. The anticipated normal conditions of mean maximum temperature would have positive contribution for the normal growth and development of plants in terms of thermal requirements of the plants.

Last but not least, judiciously use and interpretation of seasonal weather forecast according to the specific conditions of Belg growing areas has paramount importance in order to take appropriate measures in space and time. Thus, the concerned personal should give appropriate attention to use the forecast efficiently. Besides, considering other conditions like the on set of the season, the distribution of rainfall throughout the season and cessation of rainfall in terms of crop type, phenological phase of the crop, soil types of the area, etc. is very important in order to get sound output.

	Table 1. Climatic and Agro-Climatic elements of different stations for the month of January 2007							
	Stations	**Region**	**A/ rainfall**	**Normal**	**%of Normal**	**Eto mm/day**	**Monthly Eto**	**Moisture status**
1	**Adigrat**	**TIGRAI**	2.0	10.0	20.0	2.51	77.81	VD
2	**Mekele**		1	4	30.6	4.29	132.99	VD
3	**Senkata**		0	10	0.0	NA	NA	NA
4	**Shire**		0	3	0.0	1.57	48.67	VD
1	**Assayta**	**AFAR**	0.0	14.0	0.0	NA	NA	NA
2	**Dubti**		4.0	4.0	100.0	5.34	165.54	VD
1	**A. Ketema**	**AMHARA**	5	7	71.4	3.89	120.59	VD
2	**Bati**		48.0	33.0	145.5	3.36	104.16	MD
3	**Bullen**		1.0	2.0	50.0	3.44	106.64	D
4	**Combolcha**		41.0	28	146.4	2.86	88.66	MD
5	**Chefa**		27.0	42.0	64.3	3.43	106.33	MD
6	**D.Birhan**		2.0	11	18.2	3.96	122.76	VD
7	**D.Markos**		1.0	16	6.3	3.87	119.97	VD
8	**D.Tabor**		2.0	8.0	25.0	NA	NA	NA
9	**Enwary**		11	11	94.7	4.6	142.6	VD
10	**M.Meda**		26	19	136.3	3.46	107.26	D
11	**Majete**		8	31	27.5	3.14	97.34	VD
12	**Metema**		0	1	0.0	4.2	130.2	VD
13	**Lalibela**		40	7	556.3	3.66	113.46	MD
14	**S. Gebeya**		6	23	25.0	3.14	97.34	VD
15	**Sirinka**		31	47	66.1	2.53	78.43	MD
16	**Wegeltena**		35	16	227.1	NA	NA	NA
17	**Wereilu**		12	21	59.9	3.06	94.86	D
		OROMIYA						
1	**Ambo Agri.**							
2	**Abomsa**		17.0	34	50.0	3.67	113.77	D
3	**Aira**		2.0	3	66.7	NA	NA	NA
4	**Alemaya**		0.0	8	0.0	3.61	111.91	VD
5	**Alge**		7.0	18	38.9	NA	NA	NA
6	**Ambo**		59.0	22	268.2	3.36	104.16	M
7	**Arjo**		8.0	15	53.3	NA	NA	NA
8	**Bedelle**		1.0	12.0	8.3	NA	NA	NA
9	**Begi**		1.0	1.0	100.0	NA	NA	NA
10	**Bui**		18.0	9.0	200.0	NA	NA	NA
11	**Chira**		121.0	48	252.1	NA	NA	NA
12	**D.Dollo**		21.0	9	233.3	3.29	101.99	D
13	**D.Mena**		2.0	24.0	8.3	3.87	119.97	VD
14	**D.Zeit**		12.0	10	120.0	4.17	129.27	VD
15	**Ejaji**		11	8	137.3	NA	NA	NA
16	**Fitche**		21	21	100.0	3.22	99.82	D
17	**Gelemso**		0	18	1.1	4.65	144.15	VD
18	**Gimbi**		0	4	0.0	NA	NA	NA
19	**Ginir**		0	23	0.0	NA	NA	NA
20	**Gore**		12	41	29.8	3.34	103.54	D
21	**H. Mariam**		9	13	64.9	3.03	93.93	VD
22	**Jimma**		38	34	109.0	3.11	96.41	MD
23	**K.Mengist**		7	19	38.0	NA	NA	NA
24	**Koffele**		19	36	52.8	NA	NA	NA
25	**Kulumsa**		27	21	133.0	4.07	126.17	D
26	**LimuGenet**		47	25	188.1	NA	NA	NA

27	**Metadata**		10	8	115.5	4.52	140.12	VD
28	**Moyale**		3	17	20.4	NA	NA	NA
29	**Nazareth**		23	11	209.9	5.19	160.89	D
30	**Neghele**		0	9	0.0	5.7	176.7	VD
31	**Nedjo**		0	8	0.0	NA	NA	NA
32	**Nekemte**		5	10	47.0	3.46	107.26	VD
33	**Robe(Bale)**		0	21	0.0	2.59	80.29	VD
34	**Sekoru**		69	30	233.9	3.3	102.3	M
35	**Shambu**		15	21	70.6	3.3	102.3	D
36	**Woliso**		22	18	120.0	NA	NA	NA
37	**Yabello**		0	25	0.0	NA	NA	NA
38	**Ziway**		11	16	66.9	3.89	120.59	VD
1	**Jijiga**	**SOMALI**	0	11	0.0	3.1	96.1	VD
1	**A.Minch**	**SNNPR**	41.0	31	132.3	3.97	123.07	MD
2	**Awassa**		11	47	23.4	3.97	123.07	VD
3	**Dilla**		6.0	34	17.6	NA	NA	NA
4	**Hosaina**		32	29	110.8	3.43	106.33	MD
5	**Jinka**		105	52	202.9	3	93	H
6	**Konso**		2	29	7.0	4.74	146.94	VD
7	**M.Abay**		49	22	225.1	4.52	140.12	MD
8	**Sawla**		113	40	284.2	3.75	116.25	M
1	**Assosa**	**B/GUMUZ**	0.0	1	0.0	4.5	139.5	VD
2	**Chagni**		10.0	5	200.0	3.55	110.05	VD
1	**Gambela**	**Gambela**	0	2	0.0	3.88	120.28	VD
2	**Abobo**		16.0	5.0	320.0	NA	NA	NA
3	**A.A.Obs.**	**A.A**	51.0	17	300.0	3	93	M
4	**A.A. Bole**		34.0	16	212.5	4.5	139.5	D
1	**Diredawa**	**D.D**	0.0	22	0.0	3.33	103.23	VD
1	**Harar**	**Harai**	0	8	0.0	4.17	129.27	VD

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 evapotransipiration of a disease free crop, growing under non-restricting soil conditions including soil water and fertility.

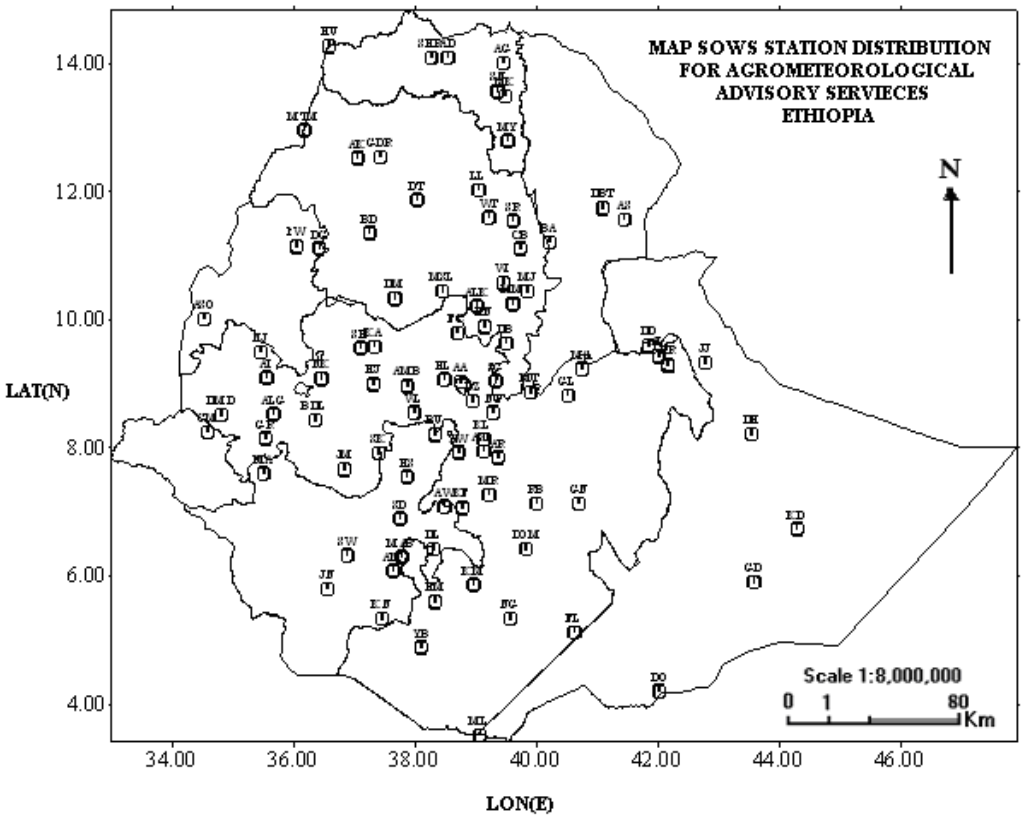
DEKAD: - First or second ten days or the remaining days of a month.

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