FORE WARD

This Agro met Bulletin is prepared and disseminated by the National Meteorological Agency (NMA). The aim is to provide those sectors of the community involved in Agriculture and related disciplines with the current weather situation in relation to known agricultural practices.

The information contained in the bulletin, if judiciously utilized, are believed to assist planners, decision makers and the farmers at large, through an appropriate media, in minimizing risks, increase efficiency, maximize yield. On the other hand, it is vital tool in monitoring crop/ weather conditions during the growing seasons, to be able to make more realistic assessment of the annual crop production before harvest.

The Agency disseminates ten daily, monthly and seasonal weather reports in which all the necessary current information's relevant to agriculture are compiled.

We are of the opinion that careful and continuous use of this bulletin can benefit to raise ones agro climate consciousness for improving agriculture-oriented practices. Meanwhile, your comments and constructive suggestions are highly appreciated to make the objective of this bulletin a success.

Director General

NMA
P.O.Box 1090
Tel: 011661-57-79
FAX 00251-11-6625292
E-mail nmsa@ethionet.et
Addis Ababa

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እ.ኤ.አ አፕሪል 2014

የአፕሪል የመጀመሪያ አሥር ቀናት የበልግ ዝናብ ሰጭ የአየር ሁኔታ ክስተቶች ከሞላ ጎደል ከመጠናከራቸው ጋር ተያይዞ በአብዛኛው የበልግ ዝናብ ተጠቃሚ አካባቢዎች በሆኑት በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፣ በአብዛኛው ኦሮሚያ፣ በጋምቤላ፣ በቤንሻንጉል-ጉሙዝ፣በአማራ፣ በምስራቅ ትግራይ፣ በአፋር፣ በሱማሌ፣ በድሬደዋ እና በሐራሪ ከከባድ እስከ ቀላል መጠን ያለው ዝናብ አግኝተዋል። በአንዳንድ ቦታዎቻቸውም ላይ 34.0-75.3 ሚሜ መጠን ያለው ዝናብ በአንድ ቀን ውስጥ አግኝተዋል። ይህም ሁኔታ ለበልግ እርሻ የስራ እንቅስቃሴ፣ ለረዝም ጊዜ ሰብሎች እንደ ማሽላና በቆሎ ለመሳሰሉት የማሳ ዝግጅትና ለዘር የስራ ፣ ለቋሚ ስብሎች የውሃ ፍላጐት መሞላት እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለመጠጥ ውሀና ለግጦሽ ሳር አቅርቦት የጎላ ጠቀሜታ ነበረው።

የአፕሪል ሁለተኛው አሥር ቀናት በከባቢው አየር ውስጥ የነበረው እርጥበታማ የአየር ሁኔታ ከሰሜን ምስራቅ የቀነሰ ሲሆን በተቀሩት የበልግ ዝናብ ተጠቃሚ አካባቢዎች የተሻለ ዝናብ ነበራቸው። በዚህም ምክንያት በትግራይ፣ በአማራ፣ በአፋር፣ በቤንሻንጉል-ጉሙዝ፣ በመካከለኛውና ምስራቅ ኦሮሚያ፣ በጋምቤላኛ በምእራብ የደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፣ ከ5-8 ቀናት ከ 50.0-138.0 ሚ.ሜ ከባድ ዝናብ የተገኘ ሲሆን በአንዳንድ ቦታዎቻቸው ላይም በአንድ ቀን ውስጥ ከ30.0 ሚሜ በላይ ዝናብ ነበራቸው። ይህም ሁኔታ ለበልግ እርሻ የስራ እንቅስቃሴ፣ ለረዝም ጊዜ ሰብሎች እንደ ማሽላና በቆሎ ለመሳሰሉት የማሳ ዝግጅትና ለዘር የስራ ፣ ለቋሚ ስብሎች የውሃ ፍላጐት መሞላት እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮችለመጠጥ ውሀና ለግጦሽ ሳር አቅርቦት የጎላ ጠቀሜታ ነበረው።

የአፕሪል ሶስተኛው አሥር ቀናት ለዝናብ መኖር አመቺ የሆኑ የአየር ሁኔታ ክስተቶች በአብዛኛው የበልግ ዝናብ ተጠቃሚ የሀገሪቱ አካባቢዎች ከመጠናከራቸው ጋር ተያይዘው በአብዛኛው ኦሮሚያ፣ ትግራይ፣ አማራ፣ በቤንሻንጉል-ጉሙዝ፣ በጋምቤ፣ በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፡ በአፋር፣ ድሬደዋ፣ ሀራሬ እና በሰሜን ሶማሌ አካባቢዎች ከቀላል እሰከ ከባድ መጠን ያለው ዝናብ አግኝተዋል። በአሥሩ ቀናት ውስጥ 25-253ሚ.ሜ. የሚደርስ ከባድ ዝናብ ነበራቸው። በአንዳንድ ቦታዎቻቸውም ላይ በአንድ ቀን 34.5- 97.5 ሚ.ሜ ዝናብ ነበራቸው። ይህም ሁኔታ ለበልግ እርሻ የስራ እንቅስቃሴ፣ ለረዝም ጊዜ ሰብሎች እንደ ማሽላና በቆሎ ለመሳሰሉት የማሳ ዝግጅትና ለዘር የስራ ፣ ለቋሚ ስብሎች የውሃ ፍላጐት መሞላት እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮችለመጠጥ ውሀና ለግመሽ ሳር አቅርቦት የጎላ ጠቀሜታ ነበረው።

በአጠቃላይ ባላፈው የአፕሪል ወር 2014 የበልግ ዝናቡ ተጠቃሚ በሆኑት የአገሪቱ አካባቢዎች ላይ በስርጭትም ሆነ በመጠን ረገድ በአብዛኛው የበልግ ዝናብ ተጠቃሚ አካባቢዎችን ያዳረሰ ከመሆኑ ጋር ተየይዞ በትግራይ፣ በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፡ በአፋር፣ በድሬደዋ፣ በሀራሬ እና በሰሜን ሶማሌ አካባቢዎች ከ 50-498 ሚ.ሜ መጠን ያለው ዝናብ ለ6-26 ተከታታይ ቀናት አግኝተዋል። ከዚህም ጋር ተያይዞ በሻውራ፣ በጉንዶ መስቀል፣ በካችሴ፣ በዶሎመ፣ በማጀቴ፣ በበደሌ፣ በሊሙ ገነትና አርጆ 52.4-97.5 በሚ.ሜ. የሚደርስ ከባድ ዝናብ በአንድ ቀን ውስጥ አስመዝግበዋል። ይህም ሁኔታ ለበልግ የእርሻን ስራ እንቅስቃሴ፣ ለረዝም ጊዜ ሰብሎች የማሳ ዝግጅት፣ ለቋሚ ስብሎች የው፣ሃ ፍላጐት መሞላት እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮችለመጠጥ ውሀና ለግመሽ ሳር አቅርቦት የጎላ ጠቀሜታ ነበረው።

SUMMARY

April **2014**

During the first decade of April 2014, Belg rainfall bearing meteorological weather phenomena was strengthen over most of Belg rainfall benefiting areas of the country. In line to this Southern, southwestern, central, eastern and northeastern part of the country experienced Belg rainfall. More over SNNPR, much of Oromia, Gambela, Benishangul- Gumuz, central and eastern Amhara, eastern Tigray, Afar, Somali, Dire Dawa and Harari experienced light to heavy rainfall. Some station reported heavy rainfall ranging from 30.5-83.0 mm of rainfall in one rainy day. This situation might have a positive impact for ongoing Belg agricultural activities, land preparation and sowing of long crops like Maize and Sorghum, water requirement for perennial plants and availability of drinking water and pasture for pastoral and agro-pastoral areas of the country.

During the 2nd decade of April, rain bearing meteorological phenomena was weakened and retreated from northeastern parts and decrease in amount in all Belg rain benefiting areas of the country. In relation to amount and distribution Tigray, Amhara, Afar, Benshangul- Gumuz, eastern and central Oromia, western portion of SNNPR, was receive 5 to 50 mm of rainfall within 1 to 5 days while the rest parts of the country was experienced 50-138 mm of rainfall for 5-8 days respectively. Masha and Gudo- ayana reported heavy rainfall with magnitude of 43.5 and 44.5 mm within one rainy respectively. The situation might have favored the ongoing Belg agricultural activities, water requirement for perennial plants, abaliblity of pasture and drinking water for pastoral and agro pastoral areas of the country.

During the third decade of April 2014 Belg rain bearing meteorological phenomena strengthened over much of Belg rain benefiting areas of the country. In line to this much of Oromia, Tigray, Amhara, Benshangul-Gumuz, Gambela, SNNPR, Afar, Dire Dawa, Harari, northern Somali, received light to heavy rainfall ranging from 34.3-97.5mm. This situation has a positive impact for ongoing Belg agricultural activities, land preparation and sowing of long cycle crops such as Maize and Sorghum, water requirement for perennial plants and availability of drinking water and pastor over pastoral and agro-pastoral areas of the country.

In general during the month under review of April, 2014, Belg rain bearing meteorological phenomena was strengthened in amount and distribution over all Belg rain benefitting areas of the country. In line to this the first and the third decade of April 2014 all Belg growing areas of the country will gain better rainfall in amount and distribution. Tigray, Amhara, much of Oromia, Beshangul-Gumuz, Gambela, SNNPR, Afar, Dire Dawa, Harari and northern Somali received light to heavy rainfall ranging from 30.0 – 376.0 mm of rainfall for 6-25 consecutive days. While Shaura, Gudo Meskal, Kachise, Dolo Mena, Majeti, Bedele, Limu Genet and Arjo experienced 52.4-97.5 mm in one rainy day. This might have favored ongoing Belg agricultural activities, land preparation and sowing of long cycle crops such as sorghum and maize, water requirement for perennial plants and availability of drinking water and pastor for pastoral and agro-pastoral areas.

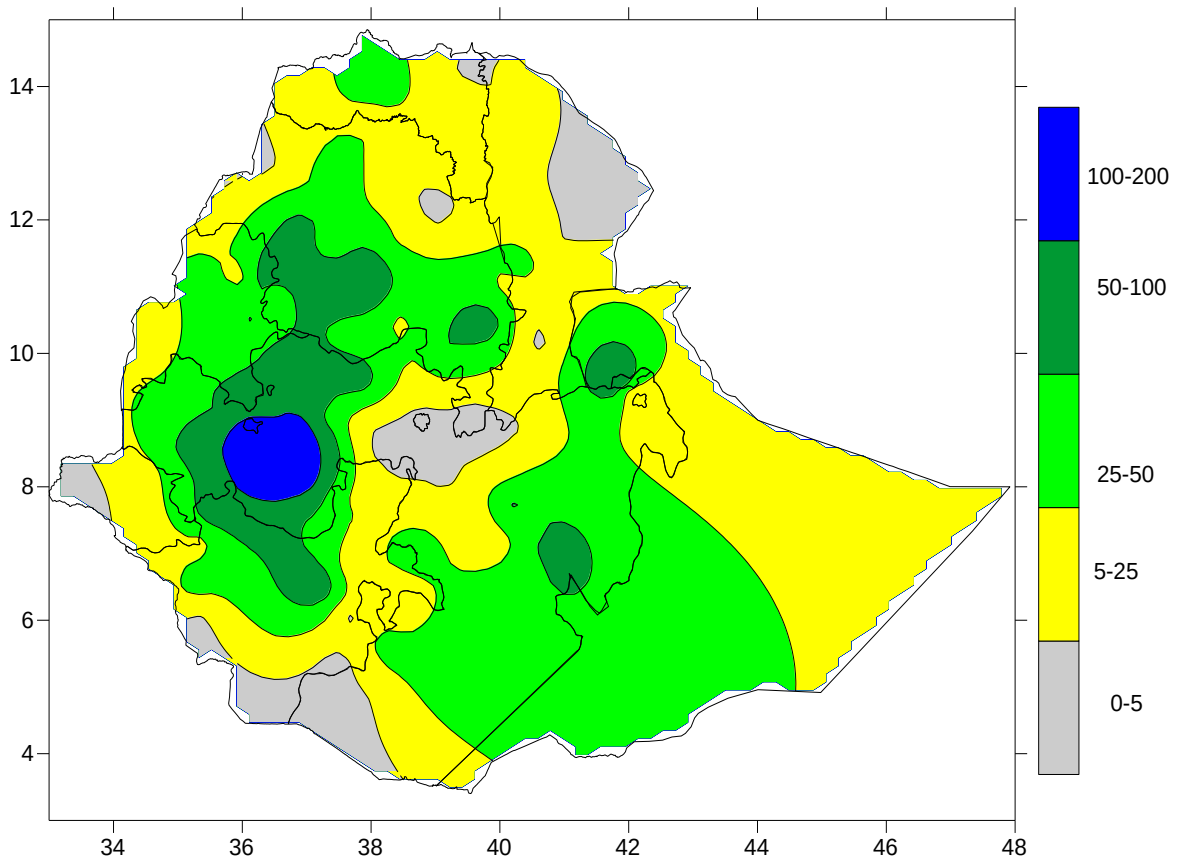


Fig 1. Rainfall distribution in mm (21 – 31 April, 2014)

1. WEATHER ASSESSMENT

1.1 (21- 31April, 2014)

1.1.1 Rainfall amount (Fig.1)

Pocket area of western Oromia received 200-300 mm of rainfall. Some parts of western and southern Oromia, southern and southwestern Amhara, pocket areas of northern Somali and western parts of SNNPR received 50-100 mm of rainfall. Southern Somali, southern eastern and parts of western Oromia, Benshangul-Gumuze, southern and western Amhara, parts of western SNNPR, northern Somali and parts of northwestern Tigray received 25-50 mm of rainfall. Most parts of Tigray, Amhara, and central Oromia, western and southern margin of SNNPR, Gambela and eastern part of Somali received 5-25 mm of rainfall. The rest parts of the country exhibited little or no rainfall.

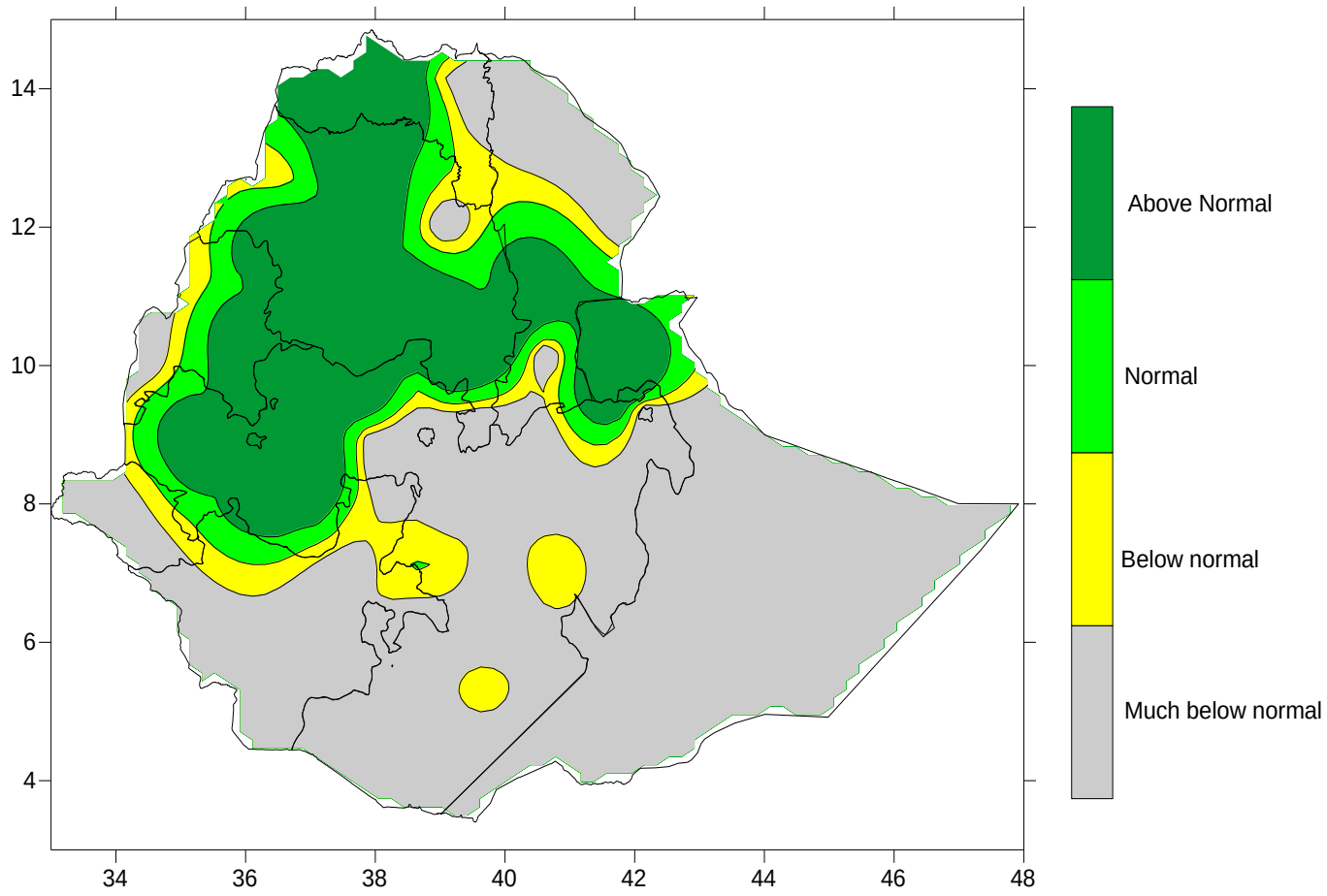


Fig. 2 Percent of normal rainfall distribution (21 – 31 April, 2014)

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)

Most of Amhara, Tigray, western Oromia, eastern half of Benshangul Gumuze, northwestern SNNPR, southern Afar and northern Somali exhibited normal to above normal rainfall. The rest parts of the country received below to much below normal rainfall.

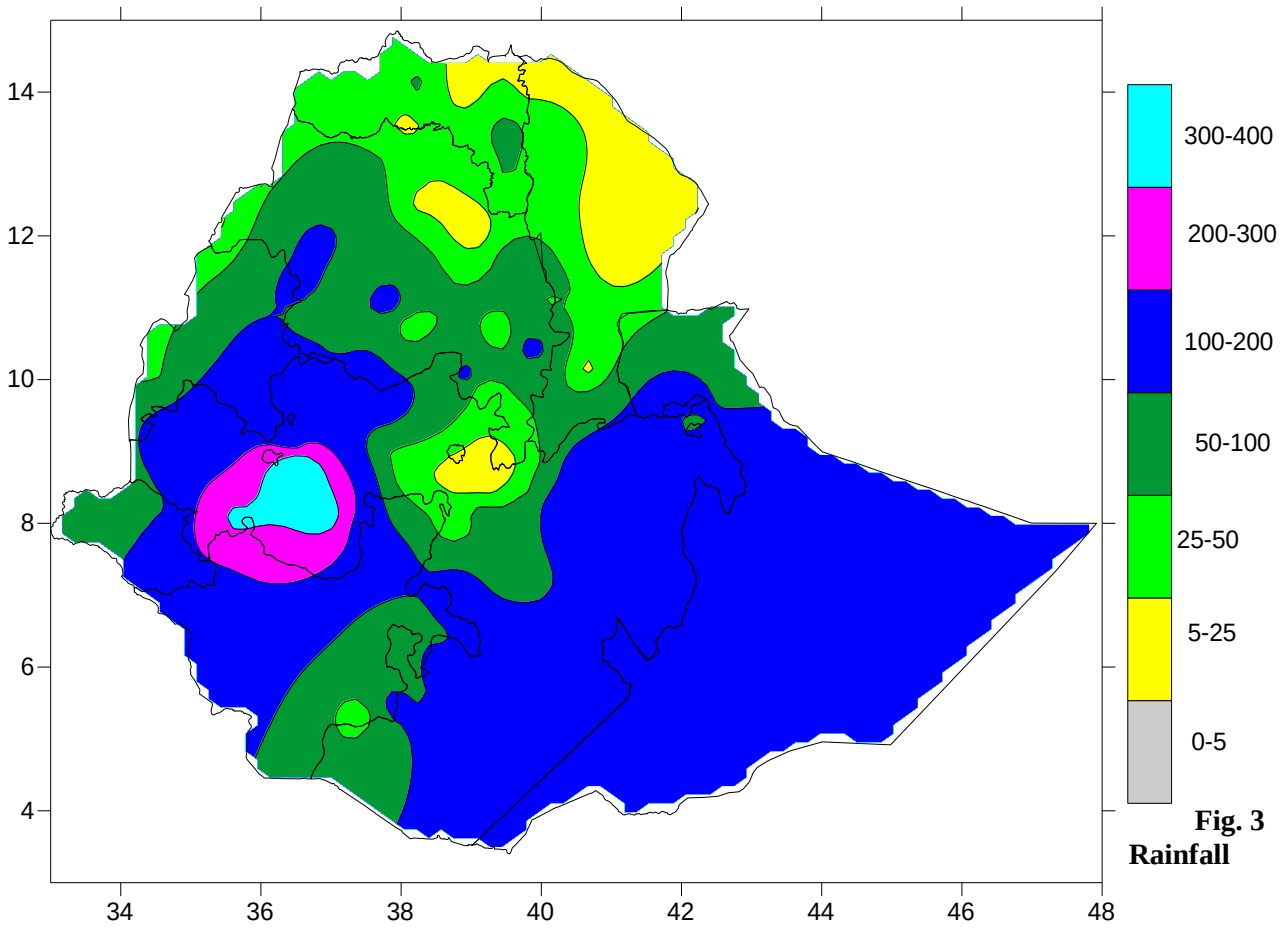


Fig. 3 Rainfall distribution in mm for the month of April, 2014

1.2 April 2014

1.2.1 Rainfall distribution (Fig.3)

Few places of western Oromia received 300-400 mm of rainfall. Parts of western Oromia and northwester tip of SNNPR received 200-300 mm of rainfall. Most parts of Somali, Oromia, western half of SNNPR, pocket areas of Amhara, eastern half of Gambela and western Benshangul-Gumuze received 100-200 mm of rainfall. Western half of Gambela and Benshangul-Gumuze, most parts of Amhara, northern Somali and southern Afar, pocket area of south Tigray and some areas of southeastern SNNPR received 50-100 mm of rainfall. Central Oromia, northern Amhara, most parts of Tigray and western and southern margin of Afar received 25-50 mm of rainfall. Central Oromia, Amhara and so, Afar received 5-25 mm of rainfall.

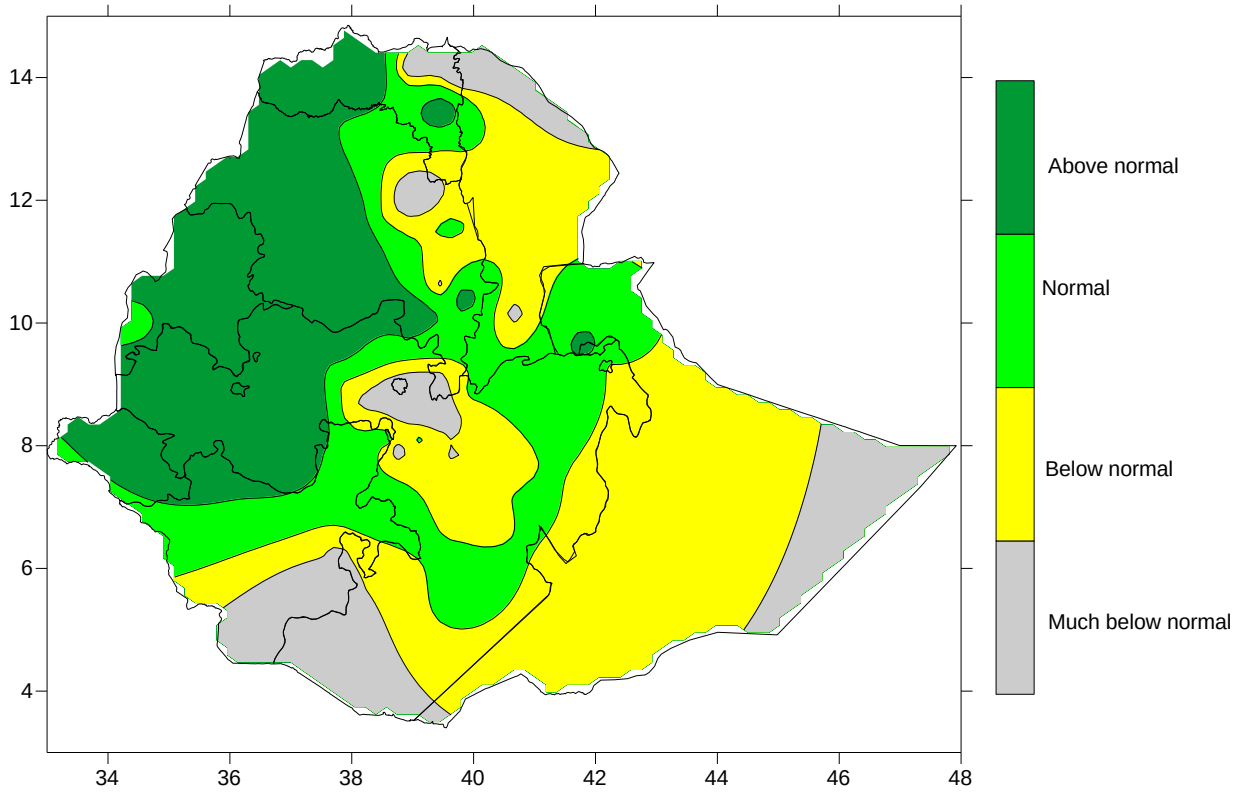


Fig. 4 Percent of Normal Rainfall n for the month of April, 2014

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)

Much of Tigray, Amhara, Oromia, Benshangul- Gumuz, Gambela, SNNPR northern Somali and southern Afar exhibited normal to above normal rainfall. The rest parts of the country experienced below normal and much below normal rainfall.

1.3 TEMPERATURE ANOMALY

During the month under review, some stations from the southern, eastern and western, lowland parts of the country exhibited extreme maximum air temperature over Arba Minch, Dire Dawa, Gode, Metehara, Awash Arba, Chewake, Dubti, Elidar, Gambela, Gewan, Mankush, Mile, Myssubri, Metema, Pawe, Quara, Semera, Sirba Abaya and Aysha with magnitude of 35.3, 36.8, 39.5, 40.0, 40.0, 35.5, 41.8, 42.2, 40.0, 41.4, 40.5, 41.5, 39.2, 42.5, 36.5, 43.5, 43.0, 38.4, 38.8 respectively. While Mehal Meda reported extreme minimum temperature as low as 4.5^{o}C. These extreme temperature experienced over aforementioned areas might have a negative impact on the normal growth and development of perennial plants and physiological activities and products of livestock.

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

In general during the month under review of April, 2014, Belg rain bearing meteorological phenomena was strengthened in amount and distribution over all Belg rain benefitting areas of the country. In line to this the first and the third decade of April 2014 all Belg growing areas of the country will gain better rainfall in amount and distribution. Tigray, Amhara, much of Oromia, Beshangul-Gumuz, Gambela, SNNPR, Afar, Dire Dawa, Harari and northern Somali received light to heavy rainfall ranging from 30.0 – 376.0 mm of rainfall for 6-25 consecutive days. While Shaura, Gudo Meskal, Kachise, Dolo Mena, Majeti, Bedele, Limu Genet and Arjo experienced 52.4-97.5 mm in one rainy day. This might have favored ongoing Belg agricultural activities, land preparation and sowing of long cycle crops such as sorghum and maize, water requirement for perennial plants and availability of drinking water and pastor for pastoral and agro-pastoral areas.

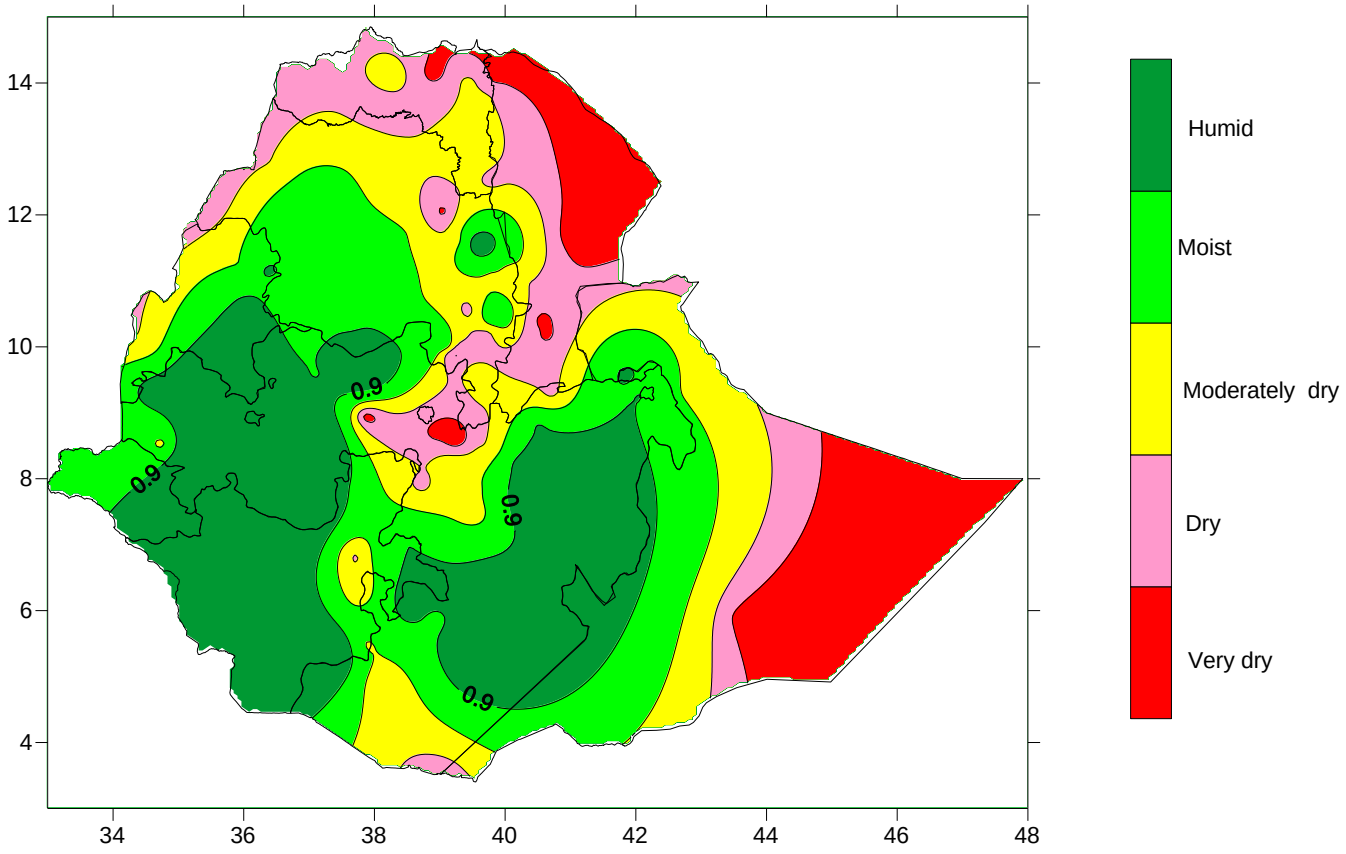


Fig. 5 moisture status for the month of April, 2014

Moisture status map shown above, indicate much of Gambela, SNNPR, Oromia, Amhara and western Somalia experienced moist to humid moisture condition. Some places of western, eastern and southern, Amhara, northern, eastern and central Somali, pocket areas of southern and central Tigray, western Benshangule Gumuz and Afar were prevailed under moderately dry moisture condition. Thus the situation might have favored ongoing Belg agricultural activities, land preparation and sowing of long cycle crops, water requirement for perennial plants and availability of drinking water and pastor for pastoral and agro-pastoral areas, while the rest parts of the country dominated by dry to very dry moisture condition.

2.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH

In the coming month May 2014 Belg rain will show a day to day reduction in amount and distribution from Belg rain receiving areas of the country. On the other hand Kerimt rain bearing meteorological phenomena will start to facilitate moist air to inter to southwestern and western parts of the country.

In line to this rain bearing meteorological condition mostly expected to strengthen over western Amhara and Tigray, Benshangul- Gumuz, Gmbela and SNNPR will expect normal to above normal rainfall while eastern Amhara, eastern Tigray and southeastern low lands of the country anticipated having near normal rainfall. This situation might have a positive impact for Belg crops that are found at different phonological phase and long cycle crops, land preparation for Kiremt agricultural activities, water requirement for perennial plants and availability of drinking water and pastor for pastoral and agro-pastoral areas.

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.

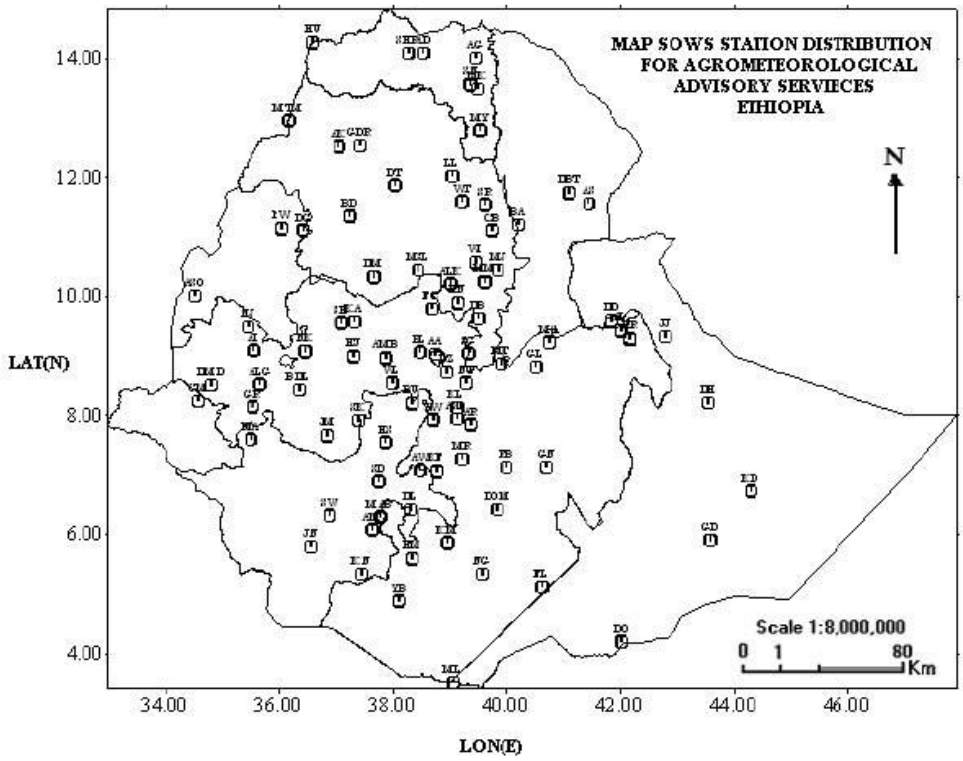
DEKAD: - First or second ten days or the remaining days of a month.

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