

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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በኖቬምበር የመጀመሪያዎቹ አሥር ቀናት በአብዛኛዎቹ የሀገሪቱ ክፍሎች ላይ የበጋው ደረቅ፣ ፀሐያማና ነፋሻማ የአየር ሁኔታ ተስተውሏል። ይህም በመሆኑ በዚህ ጊዜ የሰብል ስብሰባቸውን በሚያካሄዱ በአንዳንድ ሰብል በደረሰባቸው አካባቢዎች የነበረው ደረቅ የአየር ሁኔታ ለሰብል ስብሰባና ድህረ ሰብል ስብሰባው አመቺ ሁኔታን የፈጠረ ነበር። በሌላ በኩል በምዕራብ የነበረው እርጥበት ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት ምቹ ሁኔታ እንደሚፈጥር እሙን ቢሆንም ለሰብል ስብሰባ እና ድህረ ሰብል ስብሰባ ላይ አሉታዊ ተጽዕኖ ነበረው። በተጨማሪ በጋ ሁለተኛ የዝናብ ወቅታቸው በሆኑት የደቡብና የደቡብ ምስራቅ የሀገሪቱ ክፍሎች ላይ የተሻለ የእርጥበት ሁኔታ የተስተዋለባቸው በመሆኑ የተገኘው እርጥበት አርብቶ አደሮችና ከፊል አርብቶ አደሮች በአግባቡ በመጠቀም ዘግይተው ለተዘሩ ሰብሎች የውሃ ፍላጎት እንዲሁም በቆላማው አካባቢ ለሚኖሩት አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለግጦሽ ሣርና ለመጠጥ ውሀ አቅርቦት አዎንታዊ አስተዋጽኦ እንደነበረው ይታመናል።

በኖቬምበር ሁለተኛው አሥር ቀናት በአብዛኛዎቹ የሀገሪቱ ክፍሎች ላይ ደረቅ፣ ፀሐያማ፣ ነፋሻማና ቀዝቃዛ የአየር ሁኔታ አመዝናባቸው ተስተውሏል። በተጨማሪም ሁለተኛ የዝናብ ወቅታቸው በሆኑት በደቡባዊና በደቡባዊ ምሥራቅ የአገሪቱ ክፍሎች ላይ ዝናቡ በመጠንም ሆነ በሥርጭት ከዕለት ወደ ዕለት እየቀነሰ መምጣቱን መረጃዎች ያመለክታሉ። ይሁንና ግን ከነበራቸው የደመና ሽፋን አልፎ አልፎ ባሉት ቀናት በአንዳንድ በደቡብና በደቡብ ምሥራቅ አካባቢዎች እንዲሁም በደቡብ ምዕራብና በምዕራብ ኪስ ቦታዎች ላይ ዝናብ ነበር። በሌላ በኩል ከደመና ሽፋን መቀነስ ጋር ተያይዞ የማለዳውና የሌሊቱ ቅዝቃዜ ተጠናክሮ የነበረ በመሆኑ፣ በሀገሪቱ ደጋማ ሥፍራዎች ላይ የቅዝቃዜው መጠን ከ5 ዲግሪ ሴልሽየስ በታች ሆኖ ተመዝግቧል። ለመጥቀስ ያህል በዲግሪ ሴልሽየስ መመዝገቡ ከተሰበሰቡ መረጃዎች ለማውቅ ተችሏል።

በኖቬምበር ሰባተኛው አሥር ቀናት በጥቂት የጋምቤላ፣የቤንሻንጉል-ጉሙዝ፣የጅማ፣የምሥራቅና የምዕራብ ወለጋ፣ የአርሲና የባሌ ኪስ ቦታዎች ፣የደቡብ አሞ፣የሲዳማ፣የጌዲዮና ቤንች ማጂ እንዲሁም ኪስ የመካከለኛውና የደቡብ ትግራይ ዞኖች ለጥቂት ቀናት አነስተኛ ዝናብ ያገኙ ቢሆንም በአብዛኛው የሀገሪቱ ቦታዎች ላይ ብዙውን ጊዜ ደረቅ፣ ፀሐያማና ነፋሻማ የአየር ሁኔታ ተዘውትሮባቸዋል። ይህም በመሆኑ የክረምት ተጠቃሚ የሆኑት የሀገሪቱ ክፍል የበጋ ወቅታቸው ስለሆነና በዚህ ጊዜ የሰብል

ሱብሰባቸውን በሚያካሄዱ በአንዳንድ ሰብል በደረሰባቸው አካባቢዎች የነበረው ደረቅ የአየር ሁኔታ ለሰብል ስብሰባና ድህረ ሰብል ስብሰባው አመቺ ሁኔታን የሚፈጥር ነበር። በጥቂት ቦታዎቻቸው ላይ ለጥቂት ቀናት የተገኘው አነስተኛ እርጥበት ቀደም ብለው ለተዘሩ በመሰብሰብ ላይ ለሚገኙ ሰብሎች አሉታዊ ተጽዕኖ ሲኖረው፤ ዘግይተው ለተዘሩ በተለያዩ እድገት ደረጃ ላይ ለሚገኙና ተገልብጦው በድጋሚ ለተዘሩ የመኸር ሰብሎችም ሆነ ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት አወንታዊ ተፅዕኖ ነበረው። በተመሳሳይ ሁኔታም በደቡብ ምዕራብ የሚኖረው እርጥበት በተለያዩ እድገት ደረጃ ላይ ለሚገኙ ሰብሎችም ሆነ ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት ምቹ ሁኔታ እንደሚፈጥር እሙን ነው። በአንጻሩ ደግሞ የበጋ ሁለተኛ የዝናብ ወቅታቸው በሆኑት የደቡብ ምዕራቅ የሀገሪቱ ክፍሎች ላይ ዝቅተኛ የእርጥበት ሁኔታ የተስተዋለባቸው በመሆኑ የተገኘው እርጥበት በቆላማው አካባቢ ለሚኖሩት አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለግጦሽ ሣርና ለመጠጥ ውሀ አቅርቦት አሉታዊ አስተዋጽዖ እንደነበረው ይገመታል።

በአጠቃላይ ባለፈው የኖቨምበር ወር በአብዛኛው የሀገሪቱ ክፍሎች ላይ በአብዛኛው የበጋው ደረቅ፣ፀሐይማና ነፋሻማ የአየር ሁኔታ አመዝናባቸው የቆዩ ነበር፤ ይህም በመሆኑ የክረምት ተጠቃሚ የሆኑት የሀገሪቱ ክፍል የበጋ ወቅታቸው ስለሆነና በዚህ ጊዜ የሰብል ስብሰባቸውን በሚያካሄዱ በአንዳንድ ሰብል በደረሰባቸው አካባቢዎች የነበረው ደረቅ የአየር ሁኔታ ለሰብል ስብሰባና ድህረ ሰብል ስብሰባው አመቺ ሁኔታ የፈጠረ ቢሆንም በተለይም በአንዳንድ ለውርጭ ተጋላጭ በሆኑ ሥፍራዎች ላይ የሌሊቱና የማለዳው ቅዝቃዜ እየጨመረ በመምጣቱ እድገታቸውን ባልጨረሱ ሰብሎች ላይ አሉታዊ ጎን ሊያሳድር ይችላል። በሌላ በኩል በወሩ ውስጥ በአንዳንድ የሀገሪቱ አካባቢዎች ላይ ከቀላል እስከ መካከለኛ መጠን ያለው ዝናብ በመኖሩ ምክንያት የተገኘው እርጥበት ዘግይተው ለተዘሩና አልፎ አልፎ ፍሬ በመሙላት ላይ ለሚገኙ የመኸር ሰብሎች፣ ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት እንዲሁም የተገኘው እርጥበት በአካባቢው በዝናብ መቆራረጥ ምክንያት ተገልብጦ በድጋሚ ለተዘሩ ሰብሎች አወንታዊ ጎን ነበረው። በአንጻሩ ደግሞ በጋ ሁለተኛ የዝናብ ወቅታቸው በሆኑት የደቡብ ምዕራብ የሀገሪቱ ክፍሎች ላይ የተሻለ የእርጥበት ሁኔታ የተስተዋለባቸው በመሆኑ የተገኘው እርጥበት በደቡብ ምዕራብ የሀገሪቱ ክፍሎች ላይ ለሚኖሩት አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለግጦሽ ሣርና ለመጠጥ ውሀ አቅርቦት ጥሩ አስተዋጽዖ እንደነበረው እሙን ነው።

SUMMARY

November 2017

During the first dekad of Nov 2017, it was observed that the Bega season dry and windy conditions have prevailed in most part of the country. Such a condition might be taken as positive for harvest and post harvest activities particularly for areas where crops were fully matured, while it could be negative for perennial plants and some crops which are found at developmental, vegetative and flowering stages due to scarcity of moisture for further crops development. Moreover the situation could have negative impact on the availability of pasture and drinking water for pastoral and agro pastoral areas. On the other hand, moderately dry to humid moisture condition was observed over some of the western part of the country. Though, this condition could cause some damage on matured crops and hinder harvest and post harvest processes, it might have positive for perennial plants and crops which were not fully matured and found in different developmental stages. Similarly, good moisture distribution was observed over most of Bega season rain benefiting areas of the south and southeast parts of the country and it was believed that the received rainfall could improve soil moisture and as a result it enhance healthy crop development. Furthermore, the received moisture might have great significance for the improvement of pasture and drinking water particularly for Bega season rain benefiting areas of pastoral and agro pastorals.

Similarly, during the second dekad of November 2017, the Bega dry moisture status, coupled with sunny and windy weather condition, was prevailed over most part of the country. In addition, night and morning time cool and chilly weather condition was also observed over some high land areas as one of significant weather phenomena during the dekad under review. Such weather condition could be taken as favorable to conduct harvest and post harvest activities of fully matured Meher crops, while it could be negative for perennial plants and crops not yet fully matured and currently found at different growing stage. Furthermore, the prevailing dry and windy weather condition might put some pressure on the provision of pasture and drinking water for pastoral and agro pastoral areas.

The third dekad of November 2017, it was observed that the dry, sunny and windy conditions have prevailed. This situation favored harvest and post-harvest agricultural activities for meher crops. In line with this, in some high land areas of the country cold temperature was observed. This effect of extreme low temperature more pronounced on small plants, plants at flowering stage and fruiting stage. Therefore, all the necessary measures should be taken in order to maintain the soil temperature. If the soil temperature kept warm, that could effectively reduce the harmful effect of very low temperature. In addition to this, it is recommended that crops which are matured and ready to harvest should be harvested soon.

On the other hand in the third decade of November little to medium rainfall are received in south and south western Oromia, this situation is a negative impact on harvest and post-harvest agricultural activities. But the rainfall distributions are a positive impact on pastoral and agro pastoral Agricultural activity. For instance, for plants at early stage, water requirement for perennial plants, development, matured stage and drinking water and pasture over pastoral and agro-pastoral areas.

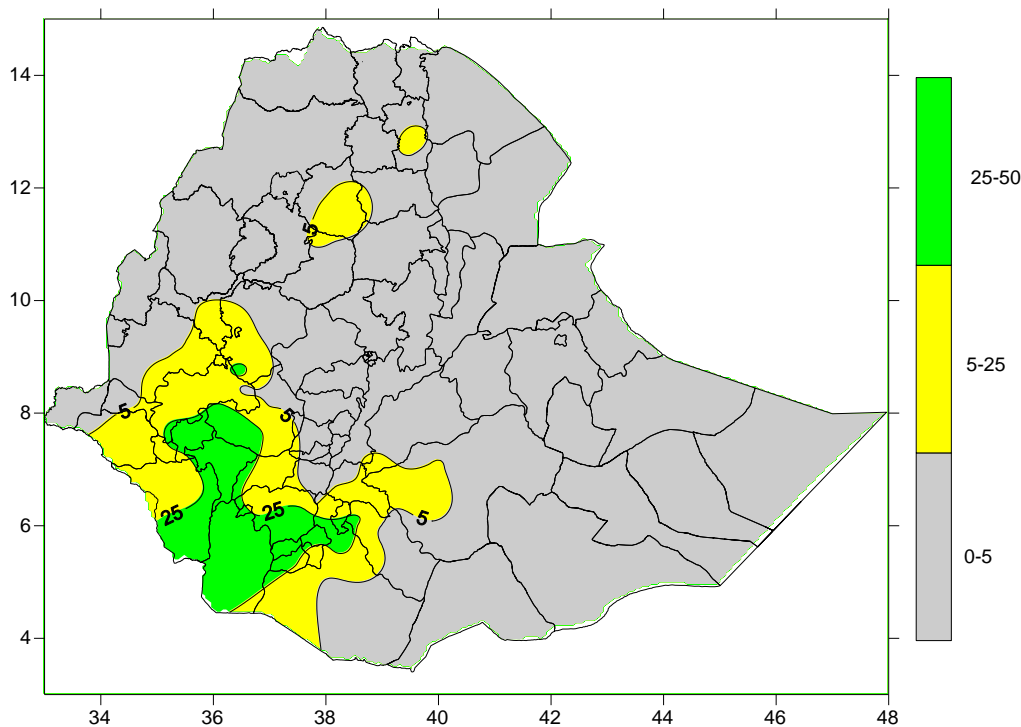


Fig 1. Rainfall distribution in mm (21 – 30) November 2017

1. WEATHER ASSESSMENT

1.1. Rainfall amount (Fig.1)

Pocket area of Sheka, Keffa, Basketo, south Omo, Konso, Derashe and Gamogofa have received 25 – 50 mm of rainfall. Pocket area of Kamashi, Illubabur, Jimma, and Gambela zone 2, Godere, Benchmaji, Dawuro, Amaro, Bale, Geddeo, south Tigray, south Gonder and Guji exhibited 5-25 mm of rainfall. The rest part of the country are nor rainfall.

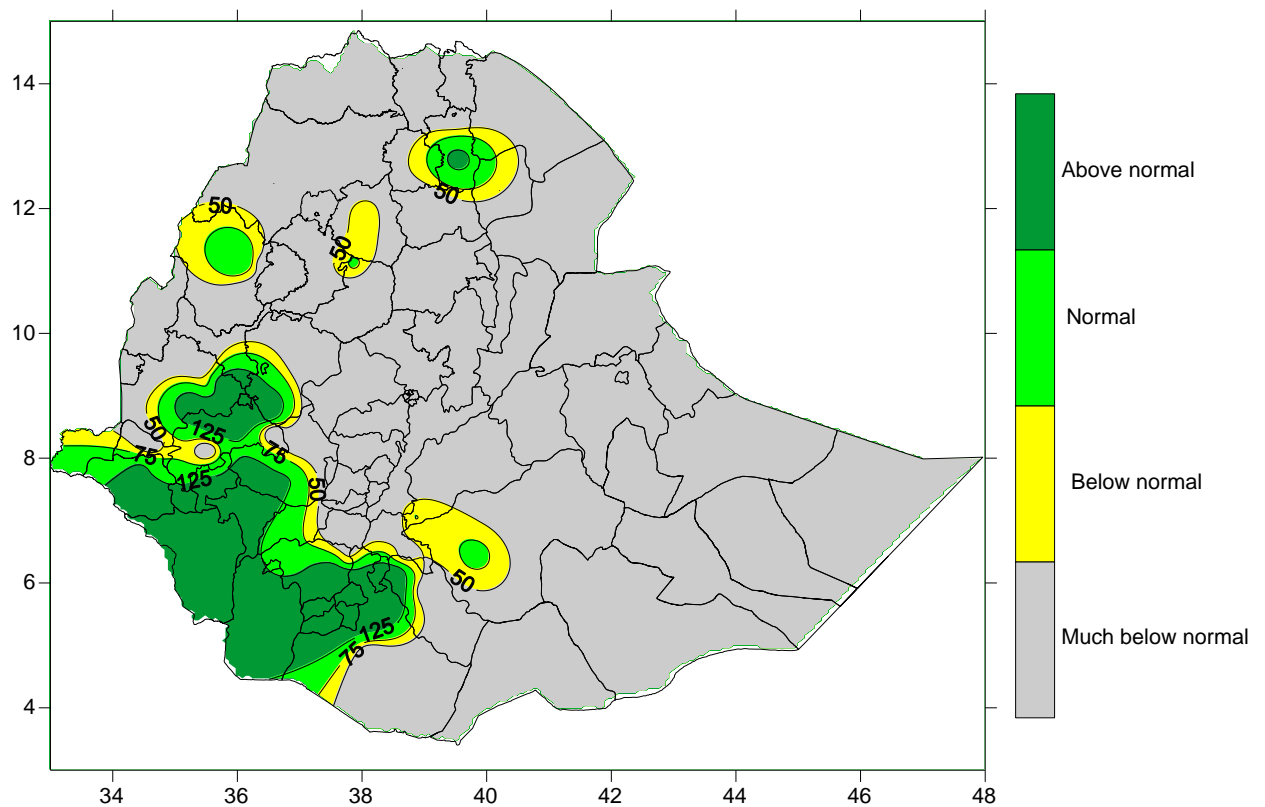


Fig. 2 Percent of normal rainfall distribution (21 – 30 November 2017)

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)

Pocket area of the country exhibited normal to above normal rainfall over Sheka, Keffa, Basketo, south Omo, Konso, south Tigray, Derashe and Gamogofa. The rest part of the country has received from much below normal to below normal rainfall.

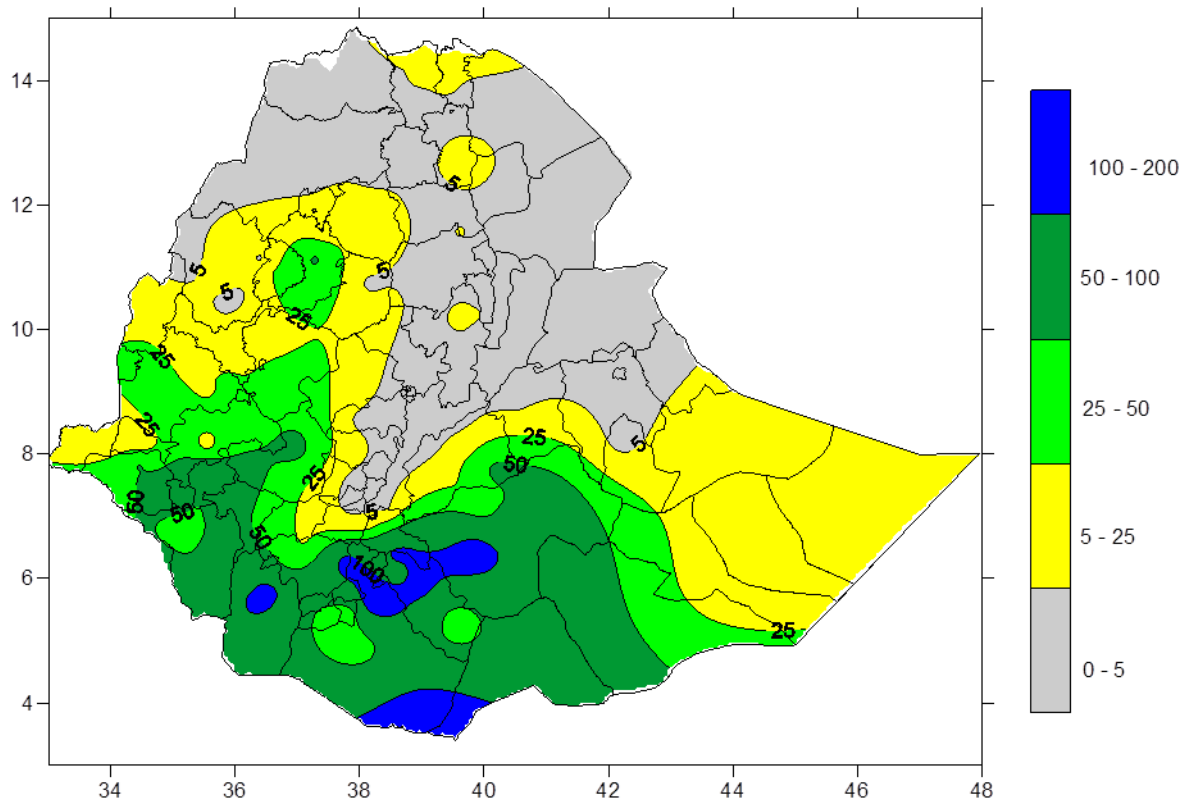


Fig. 3 Rainfall amount in mm for the month of November 2017

1.2.1 Rainfall amount (Fig.3)

During November 2017 some areas of Borena, Guji and Bale zones of Oromia and pocket area of Gedeo, south Omo and Liben zones experienced 100 -200mm total monthly rainfall. Where as much SNNP, southwestern Somali (Liben and Afder zones), Southern Gambela (zone 2) adopted 50 -100mm monthly rainfall. Much of western Oromia, east and west Wollega, Ilubabor, some parts of west Shewa, Arsi, Bale, central Somali, central Amhara (Bahir Dar, west Gojam and Awi), pocket areas of Guji, Borena, Amaro, Konso, Burji, Bench Maji and Zone2 of Gambela got 25 - 50mm monthly rainfall. Much of eastern Somali, Benshangul Gumuz, south Gonder east Gojam, north and west Shewa, some areas of Gurage, Welayta, Arsi, west Harerge, Gambela zone 1 and zone3 and northeast of wellega received 5-25mm total monthly rainfall. The rest parts of the country received less than 5mm total rainfall in the month.

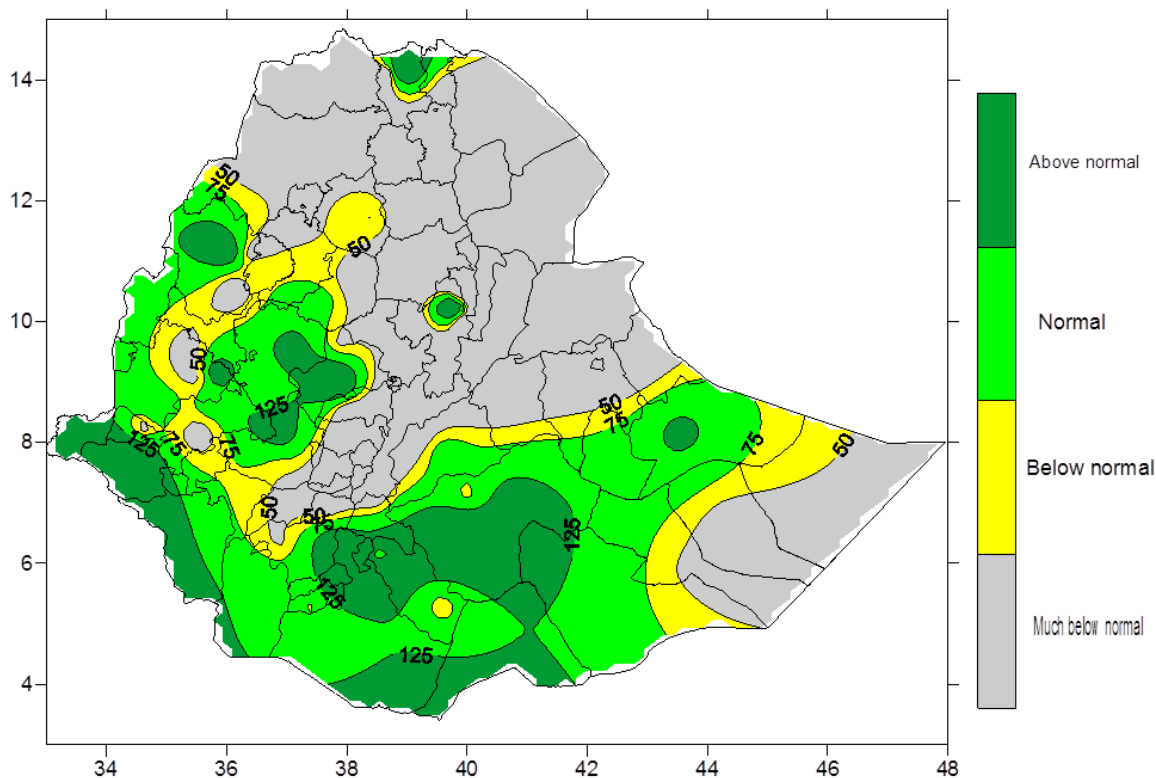


Fig. 4 Percent of Normal Rainfall for the month of November 2017

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)

During last November month much parts of southern, southwestern of the country, western and north western Somali, western Oromia and pocket area of central Ethiopia adopted normal to above normal rainfall condition. Whereas the rest part of the country experienced below normal too much below normal rainfall condition.

1.3 TEMPERATURE ANOMALY

During the month under review, some stations found in the highland of the country exhibited extreme minimum temperature below 5°C. Among reporting stations: : Mehal meda, Debrebirhan, Wegel tena, Debireziet, Alemaya, Ambemariyam, Arsi robe and Bui recorded .The situation might have caused a negative impact on the normal growth and development of plants and livestock.

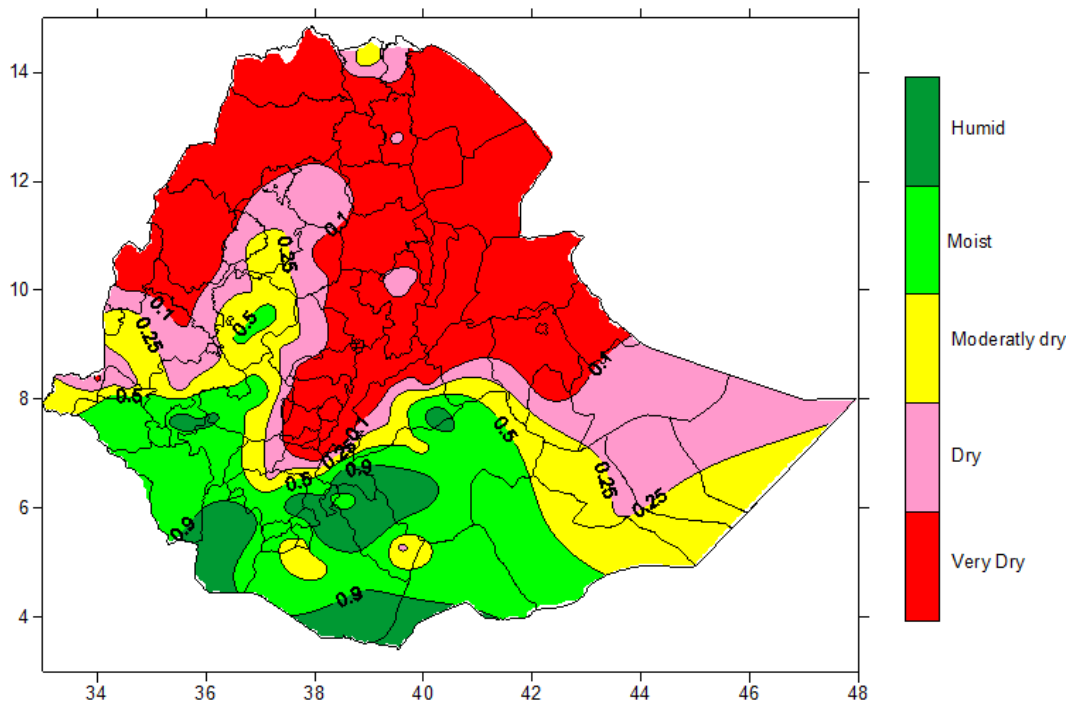


Fig. 5 moisture status for the month of November 2017

As moisture status map above during November 2017 indicated that (see Fig.5). For the past November 2017 month all most all parts of bega season areas dry, sunny and windy weather condition dominated. This weather condition over bega season due to this condition positive impact for harvesting and post harvesting activities especially over northern and north eastern parts of the country. In addition to this especially over frost area at night and morning time temperature was decreased time to time so it was negative impact over now found at different growing stages.

On the other hands some parts of the country from Little to medium amount of rain fall gained. By this cause a good opportunity for soil moisture over long cycle crops which were planted at earlier time and short cycle meher crops or re planted lately and now found at different growing stages.

On the other side's bega season second rain benefiting areas like south, south western and south eastern parts of the country was a good moisture status (semi dry to humid). So this good moisture status was positive impact for southern and south western multi agricultural activities and southern and south eastern pastoral and agro pastoral areas gained good pasture and availability of water.

2.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH

In normal condition in December 2017 month dry, sunny and windy Bega weather is experienced and the time of harvest and post harvest over kiremt benefiting areas in most part of the country. The meteorological forecast data shows that during coming December 2017 month dry, sunny and windy Bega weather expected on most part of the country and cold weather during night and early morning and frost is expected on high land areas of the country. This dry situation will have positive impact for harvest and post harvest over agricultural activities. In frost prone area the frost is negative impact on early stage, water requirement for perennial plants, development, and matured stage crops.

On the other hands, sometimes strong cloud amount over south Oromia will expect little amount of rain fall. This condition will expect positive impact for planted at early time and now found at different growing stages and perennial plants availability of water. Also available of water and pasture will expect for pastoral and agro pastoral areas of southern and south eastern parts of the country.

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 covers 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.

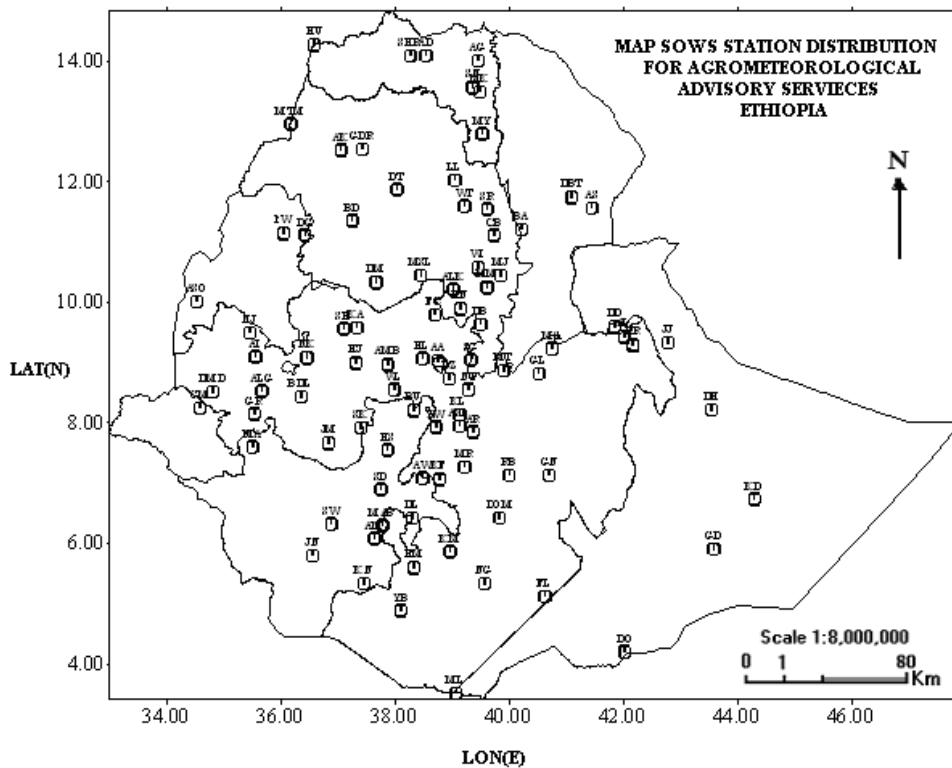
DEKAD: - First or second ten days or the remaining days of a month.

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