

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 አፕሪል 2018

በመደበኛ ሁኔታ በኤፕሪል ወር ከእርሻ እንቅስቃሴ አኳያ የበልግ አብቃይ አካባቢዎች በስርጭትም ሆነ በመጠን ረገድ ጥሩ ዝናብ የሚያገኙበትና እንዲሁም የመኸር ወቅት የረጅም ጊዜ ሰብል አብቃዮች የማሳ ዝግጅትና የዘር እርሻ እንቅስቃሴ የሚጀምሩበትና ዋነኛ የዝናብ ወቅታቸው የሆነው የደቡብና የደቡብ ምስራቅ አርብቶ አደሮች እና ከፊል አርብቶ አደሮች ከፍተኛ ዝናብ የሚገኙበት ጊዜ ነው።

ባለፉት የአፕሪል 2018 የመጀመሪያ አሥር ቀናት ወደ ሀገራችን እየገባ የነበረው ዕርጥበት አዘል አየር በአብዛኛዎቹ የበልግ አብቃይ እና ተጠቃሚ አካባቢዎች ላይ የተሻለ ገጽታ ነበረው። ከዚህ ጋር በተያያዘም ባለፉት አስር ቀናት አብዛኛዎቹ የሀገሪቱ ክፍሎች ላይ የተገኘው እርጥበት የተሻለ ከመሆኑ ጋር ተያይዞ የበልግ እርሻ ስራ እንቅስቃሴ እያካሄዱ ላሉ አካባቢዎች ለሰብሉ የውሃ ፍላጎት መሟላት፣ ለረጅም ጊዜ ሰብሎች የማሳ ዝግጅትና የዘር ጊዜ እርሻ እንቅስቃሴ፣ ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለመጠጥ ውሀና ለግጦሽ ሳር አቅርቦት የጎላ ጠቀሜታ ነበረው። ሆኖም ግን በአንዳንድ አካባቢዎች የነበረው ከፍተኛ መጠን ያለው ዝናብ በተለይም በምስራቅ የሀገሪቱ ክፍሎች (በቡርቃ እና በጅግጅጋ ጣቢያዎች) ላይ ከባድ እና ጎርፍ የማስከትል አቅም የነበረው ዝናብ ተመዝግቧል። ይህም ሁኔታ በአርብቶ አደሩ አካባቢ የሚኖረውን የውሃ አቅርቦት ያሻሽላል ።

በአፕሪል 2018 ሁለተኛው አስር ቀናት ለወቅቱ ዝናብ መኖር አመቺ የሆኑት የሚቲዎሮሎጂ ክስተቶች ከመጠናከራቸው ጋር ተያይዞ የበልግ ዝናብ ተጠቃሚ የሆኑት የሀገሪቱ አካባቢዎች ከቀላል እስከ ከባድ መጠን ያለው ዝናብ ነበራቸው። ይህም ሁኔታ በተለያዩ እድገት ደረጃ ላይ ለሚገኙት ለበልግ ሰብሎች የውሃ ፍላጎት መሟላት አዎንታዊ ተፅዕኖ ነበረው። በተጨማሪም አንዳንድ የደቡብና የደቡብ ምስራቅ የሀገሪቱ አካባቢዎች በ24 ሰዓት የተመዘገበው ከባድ ዝናብ በእንሰሳት ጤና፣ በአፈር ጥበቃ ሥራ እንዲሁም ቀደም ብለው በተዘሩትና በተለያዩ የእድገት ደረጃ ላይ ለሚገኙት ስብይ አሉታዊ ተፅዕኖ ነበረው። በሌላ በኩል ባለፉት አስር ቀናት ያገኘው ዝናብ በቆላማ አካባቢዎች ለሚኖሩት አርብቶ አደርና ከፊል አርብቶ አደሩ አካባቢዎች ለግጦሽ ሳርና ለመጠጥ ውሃ አቅርቦት መሟላት በጎ ጎን የነበረው ሲሆን፣ በተጨማሪም መኸር አብቃይ ለሆኑት የሀገሪቱ አካባቢዎች ለማሳ ዝግጅት ሥራ እንቅስቃሴ አዎንታዊ ጠቀሜታ ነበረው ።

በኢፕሪል 2018 የመጨረሻዎቹ አስር ቀናት በልግ አብቃይ በሆኑ የሀገሪቱ አካባቢዎች ላይ ጥሩ እርጥበት ሁኔታ ነበራቸው። ይህም ሁኔታ ለበልግ የግብርና ሥራ እንቅስቃሴ በተለይም በተለያዩ የእድገት ደረጃ ላይ ለሚገኙ ሰብሎች የውሃ ፍላጎት መሟላት ጥሩ አስተዋጽኦ ነበረው። በተጨማሪም ለጓሮ አትክልት፣ ለዕቃዎች ልምላሜ፣ ለአርብቶ አደሩና ከፊል አርብቶ አደሩ አካባቢዎች ለመጠጥ ውሃና ለግጦሽ ሳር አቅርቦት መሟላት፣ ለረዥም ጊዜ የመኸር ሰብሎች ለማሳ ዝግጅት ከፍተኛ ጠቀሜታ ነበረው። በሌላ በኩል በአንዳንድ ስፍራዎች ላይ ከባድ ዝናብ የነበረ ሲሆን፣ ቅጽበታዊ ኅርፍ በተወሰኑ ቦታዎች በመከሰቱ በተለያዩ የእድገት ደረጃዎች ላይ ባሉ ሰብሎች እንዲሁም በሰው እና በንብረት ላይ አሉታዊ ተፅዕኖ ነበረው ።

ባለፈው የኢፕሪል ወር ለወቅቱ ዝናብ መኖር አመቺ ሁኔታን የሚፈጥሩ የአየር ሁኔታ ክስተቶች በበልግ አብቃይ እና ተጠቃሚ በሆኑ የሀገሪቱ አካባቢዎች ላይ ተጠናክሮ ነበር። ይህም በአብዛኛው የበልግ አብቃይ እና ተጠቃሚ የሀገሪቱን ክፍሎች ያዳረሰ ዝናብ ቀደም ብለው ተዘርተው በተለያዩ የእድገት ደረጃ ላይ ለሚገኙ የበልግ ሰብሎች ቀጣይ እድገታቸው ላይ የጎላ ጠቀሜታ የነበረው ሲሆን እንዲሁም ለረጅም ጊዜ ሰብሎች የማሳ ዝግጅትና ለዘር እርሻ እንቅስቃሴ፣ ለቋሚ ሰብሎች የውሀ ፍላጎት መሟላት በተጨማሪም ለደቡብ፣ ደቡብ ምስራቅና ሰሜን ምስራቅ፣ ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮች አመቺ ሁኔታን የፈጠረ ነበር። በተለይም በደቡባዊ ኢጋማሽ እና በጥቂት የምስራቅ የሀገሪቱ አካባቢዎች ላይ በአንዳንድ ስፍራዎች የነበረው ከባድ መጠን ያለው ዝናብ ለአዝዕርቱ የውሃ ፍላጎት መሟላት፣ ለግጦሽ ሳርና ለመጠጥ ውሀ አቅርቦት አመቺ ሁኔታን ቢፈጥርም በአንዳንድ ከላይ በተጠቀሱ አካባቢዎች የነበረው ከባድ ዝናብና ቅጽበታዊ ኅርፍ በተለያዩ የእድገት ደረጃዎች ላይ ባሉ ሰብሎች እንዲሁም በሰው እና በንብረት ላይ አሉታዊ ተፅዕኖ ነበረው።

SUMMARY

April, 2018

During the first dekad of April 2018, rain bearing meteorological phenomena was strengthening in amount and distribution over most Belg rain benefiting areas of the country. In line with this eastern and southern Tigray, north and south Wello, most of Shewa zones, Afar region of zone 3, 4 and 5, Somali region of Sity, Fafen, degehabur, Leben, Afder, and Korahe zone, Elubabor, Jimma, eastern Wellega, Horugudru, eastern and weastern Harerge, Arsi and Bale, Guji and Borena, Gurage Silti, Hadya, sidama, Wollita, Gamogofa, Segen people, South omo, Gedeo, Bench maji, and Keffa zone of SNNPR experienced slight to heavy rainfall. This situation might have positive impact on moisture requirement of different Belg and long cycle Meher crops found at various phases of growth, perennial plants, general agricultural activities, improve pasture and drinking water availability particularly south and southeastern pastoral and agro pastoral parts of the country. On the other hand, extreme heavy fall (50.0 – 102.9) mm in one rainy day recorded over north eastern, eastern and southern parts of the country. Due to the pronounced widespread and intensified rainfall over some places of the aforementioned areas might result in crop damage, which were attaining at different phenological stages. Besides, it improved the supply of drinking water and pasture over pastoral and agro pastoral areas.

During the second deked of April 2018 Belg season rain bearing meteorological condition were strengthen over most of Belg rain benefiting areas. In relation to this, all zones of SNNPR, Arsi and Bale, Guji and Borena, East and West Hararge, almost all zones of Somali region, all shewa zones, some place of north and south Welo zones, zone one, three, four and five of Afar region, some areas of south and eastern Tigray, Gambela, west Welega and Jimma zones obtained from small to heavy rainfall. The situation has positive impact for ongoing Belg agricultural activities in fulfilling water satisfaction and also helps land preparation activities for Maher agriculture, availabilities of drinking water and pasture in pastoral and agro-pastoral areas. On other hand over southern and southeastern parts of the country the Belg rain bearing situation is more enhanced and in relation with this some areas experienced heavy fall within 24hrs and at some station like Delo Mena, Bati, Degehabur, Aman, Konso, Burji, Merab Abaya, Jinka, Negele Borena, Jijiga, Welayta Sodo, Dire Dawa, Bale Robe, Jimma, kebrider heavy fall were observed with 24hrs. This situation might cause water logging, flash flood and hence has negative effect on early sowed Belg agriculture, health condition of livestock's and soil protection activities.

During the third dekad of April 2018 most of Belg benefiting areas of the country experienced good rainfall condition. This situation favorable to satisfy the water need of Belg season crops and has positive effects for Belg agricultural activities, perennial plants, and various horticulture crops. In addition, the condition can be suitable to plant long cycle crops, such as maize and Sorghum over long cycle crop growing areas. This also has benefit for availability of pasture and drinking water and re-charging of natural and artificial holes and ponds over the pastoral and agro pastoral community. On the other hand the experienced heavy fall in some place of the country had negative effects on agricultural activities in causing the occurrence of flooding, land slide and water logging.

In general, during the month of April 2018 rain bearing meteorological phenomena was strengthening in amount and distribution over much of Belg rain benefiting and Belg producing area of the country. This situation might have positive impact on moisture requirement of different Belg and long cycle Meher crops found at various phases of growth, perennial plants, general agricultural activities, improve pasture and drinking water availability in pastoral and agro pastoral low land areas. Besides, the observed heavy rainfall particularly southern half and some parts of eastern half of the country might have positive impact on the ongoing Belg agricultural activities normally moisture deficit areas and water harvesting where that can be used in time of deficit. Moreover the observed widespread rainfall distribution could also have indispensable contribution on the availability of pasture and drinking water for pastoral areas. On the other hand, extreme heavy fall (50.0 – 102.9) mm in one rainy day observed over south, south west, east and northeast parts of the country may cause flood and water logging on crops field in low lying areas and soil erosion on sloppy areas as well as it could affect the sowing activities by washing away the newly sown seeds in areas where sowing activities are the main practices at this time of the year.

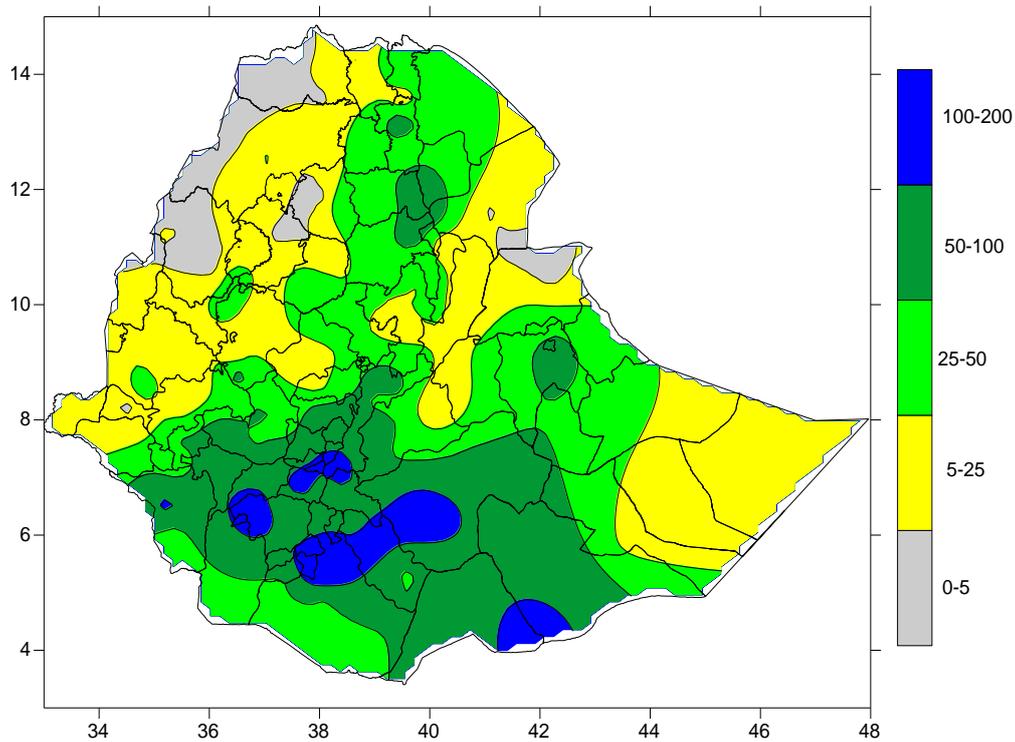


Fig 1. Rainfall distribution in mm (21 – 30 April 2018)

1. WEATHER ASSESSMENT

1.1. Rainfall amount (Fig.1)

Some part of Hadiya, Wolayita, Basketo, Bale, Guji and pocket area of Liben have received 100 – 200 mm of rainfall. Some areas of south Tigray, Oromia special zone, Harer, east Shewa, Gurage, Selti, Alaba, Sheka, KT, Kefa, Dawuro, south Omo, Bench Maji, Gedeo, Sidama, Amaro, Liben, Afder, have received 50 – 100 mm of rainfall. east Tigray, Waghmra, Afar zone 2 ,5 & 4, north & south Wollo, north & east Shewa, Godere, Arsi, Jijiga, Deghabur, Fik, Gode and Borena exhibited 25-50 mm of rainfall. Central Tigray, north Gonder, east Gojam, Assosa, Kamashi, east and west Wellega, Illubabora, Gambela zone 1 , 2 & 3, Shinle, west Shewa, Warder and Korahé exhibited 5-25 mm of rainfall. The rest parts of the country are little or no rainfall.

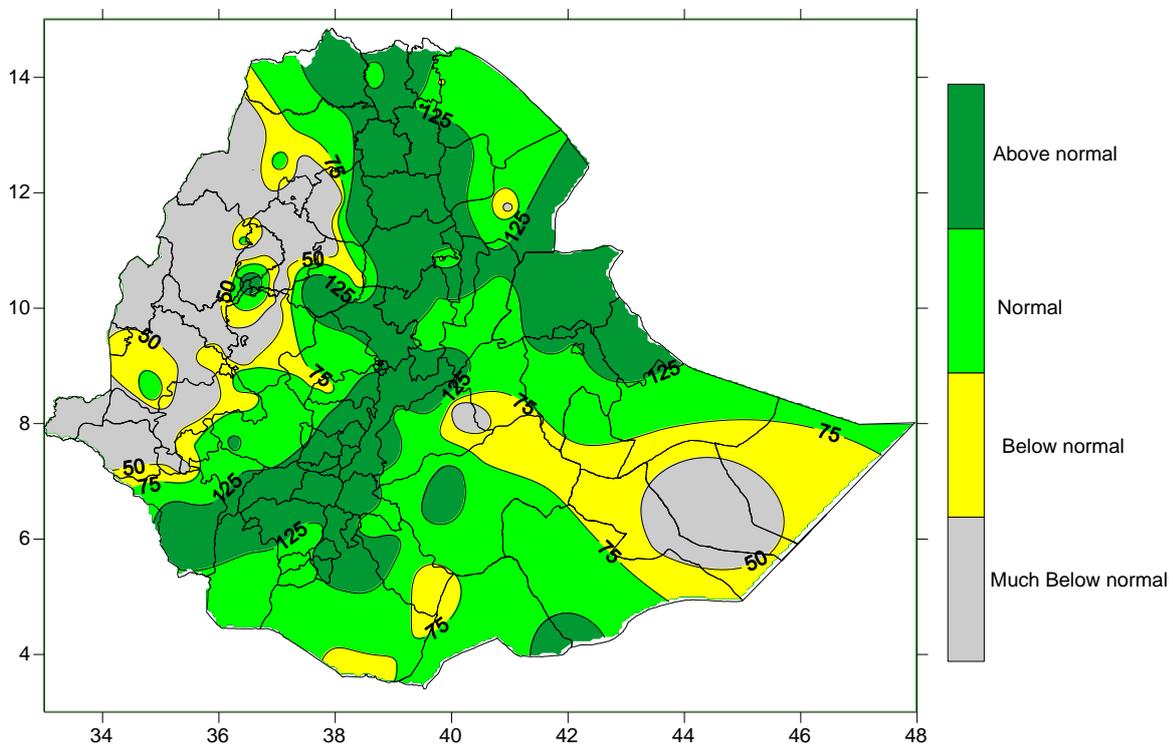


Fig. 2 Percent of normal rainfall distribution (21-30 April 2018)

Explanatory notes for the Legend

- < 50-Much below normal**
- 50-75%-Below normal**
- 75-125%- Normal**
- > 125% - Above normal**

1.2 Rainfall Anomaly (Fig. 2)

The area of the country exhibited normal to above normal rainfall over north and south Wollo, Oromia special, Afar zone 2, 4 & 5, Shinle, Jijiga, Harare, east and west Harergie, Degahabour, Fik, east and west Shewa, Gurage, Jimma, Alaba, Hadiya, Keffa, Dawuro, Wolayita, Bench Maji, Basketo, Gode, south Omo, Konso, Amaro, Borena, Guji, Bale, Afder, and Liben. The rest part of the country has received from much below normal to below normal rainfall.

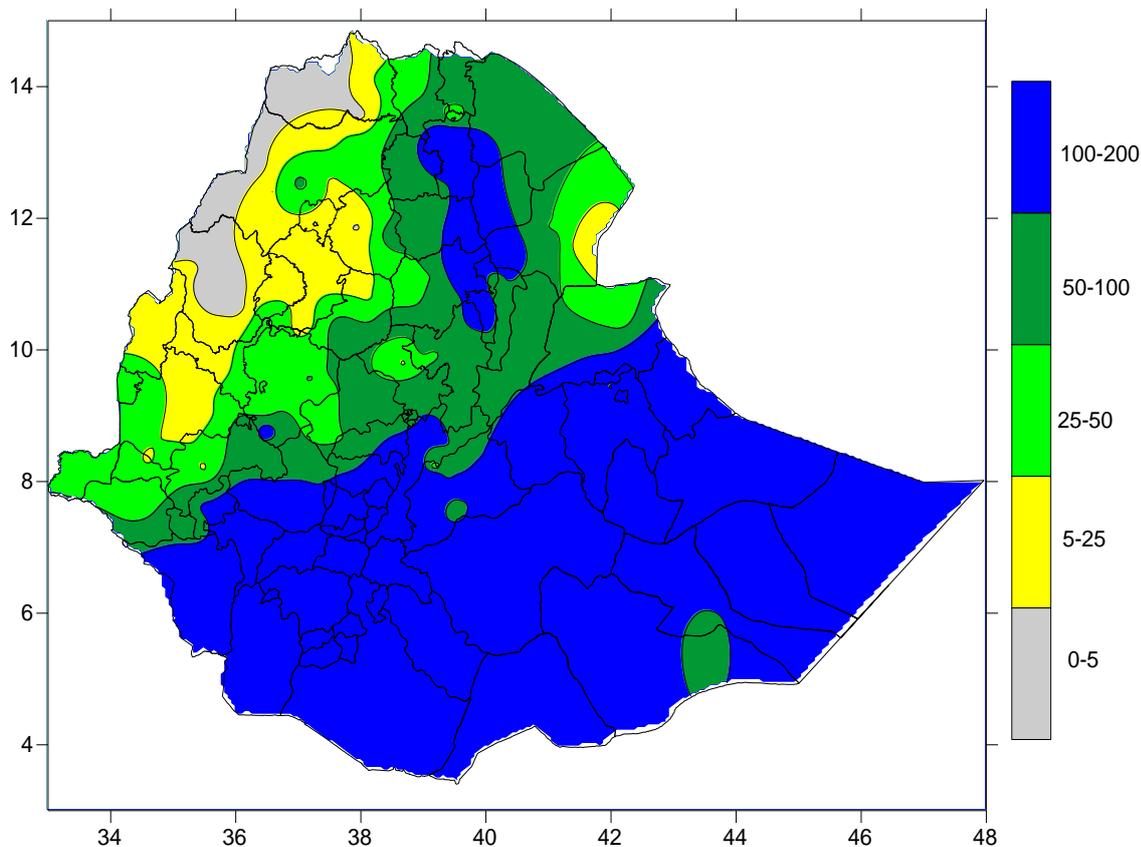


Fig. 3 Rainfall amount in mm for the month of April 2018

1.2.1 Rainfall amount (Fig.3)

Most Parts of South Tigray, Afar zone 4, Oromia special zone, Sheka, Jimma, Kefa, Bench Maji, Dawuro, Yem, Gurage, east Shewa, Selti, Alaba, Hadiya, KT, Wolayita, Sidama, Bale, east Shewa, Arsi, Bale, Basketo, Gamogofa, south Omo, Derashe, Amaro, Borena, Guji, Liben, Afder, Gode, Korahe, Warder, Fik, Deghabur, west Harergie, east Harergie, Harer and Jijiga received 100-200 mm of rainfall. Most parts of east Tigray, Waghmra, Afar zone 1,2,3& 5, north & south Wollo, north Shewa, west Shewa, Addis Ababa, Godere, Sheka and pocket area of Afder received 25-50 mm of rainfall. Most of central Tigray, north Gonder, east Gojam, east Wellega, Illubabur, Tongo, Gambela zone 1, 2, & 3 and east Shewa received 25-50mm of rainfall. pocket area of Afar zone 1 & Tigray, south Gonder, Bahirdar, west Gojam, Agew, Assosa, Kamashi and west Wellega received 5-25 mm of rainfall. The rest parts of the country experienced little or no rainfall

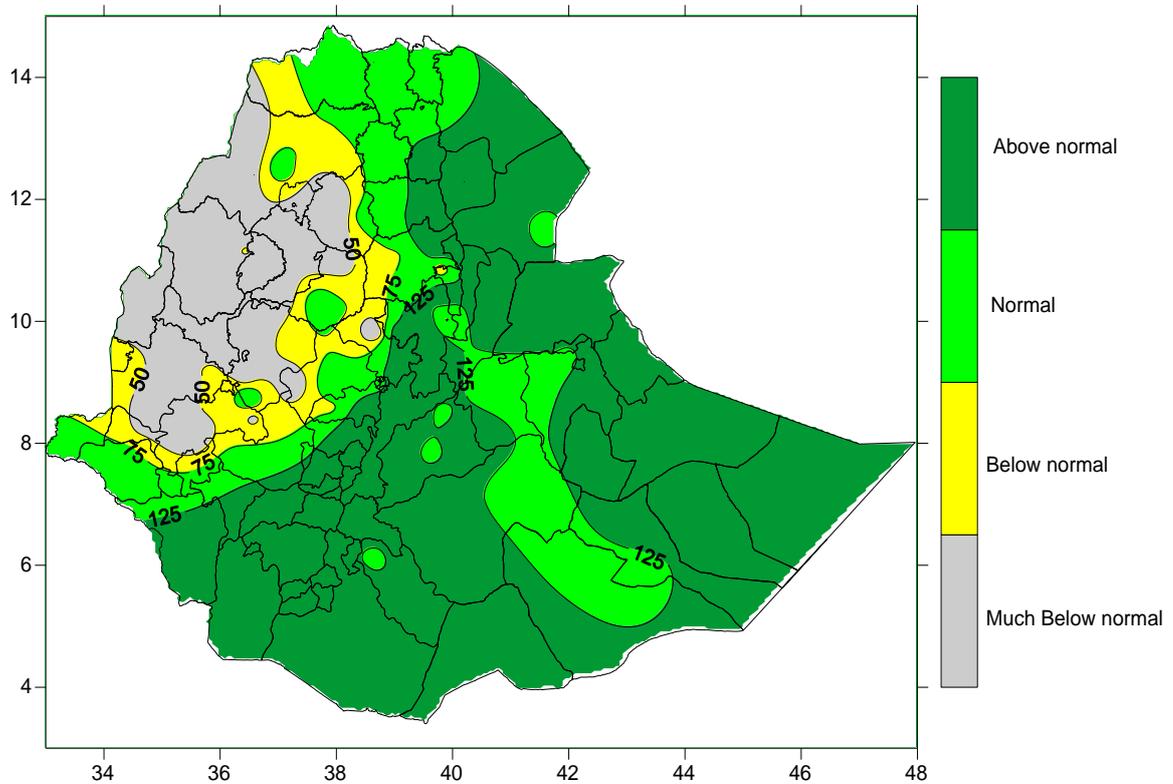


Fig. 4 Percent of Normal Rainfall for the month of April 2018

Explanatory notes for the Legend:

- < 50 -Much below normal**
- 50-75%- Below normal**
- 75-125%- Normal**
- > 125% - Above normal**

1.2. Rainfall Anomaly (Fig. 4)

Most of the area of the country exhibited normal to above normal rainfall except western part of the country. Western part of the country received from much below normal to below normal rainfall.

1.3. TEMPERATURE ANOMAL (21-30 April 2018)

Some meteorological stations recorded extreme maximum temperature greater than 35 °C 5 to 10 days. Among reporting stations: Gode, Methara, Assayta, Awash Arba, Aysha, Chifra, Dubti, Elidar, Gambela, Gewane, Kebridehar, Mankush, Metema, Mille, Mytsebri, Quara, Semera, Shiraro, Tistiska and Pawe recorded 35.4, 38.8, 38.2, 41.2, 38.0, 40.5, 37.5, 42.0, 40.5, 38.2, 40.0, 37.0, 40.0, 41.8, 40.2, 38.0, 42.6, 41.0, 40.0, 37.2 and 39.0 °C, respectively. The situation might have caused a negative impact on the normal growth and development of plants and livestock.

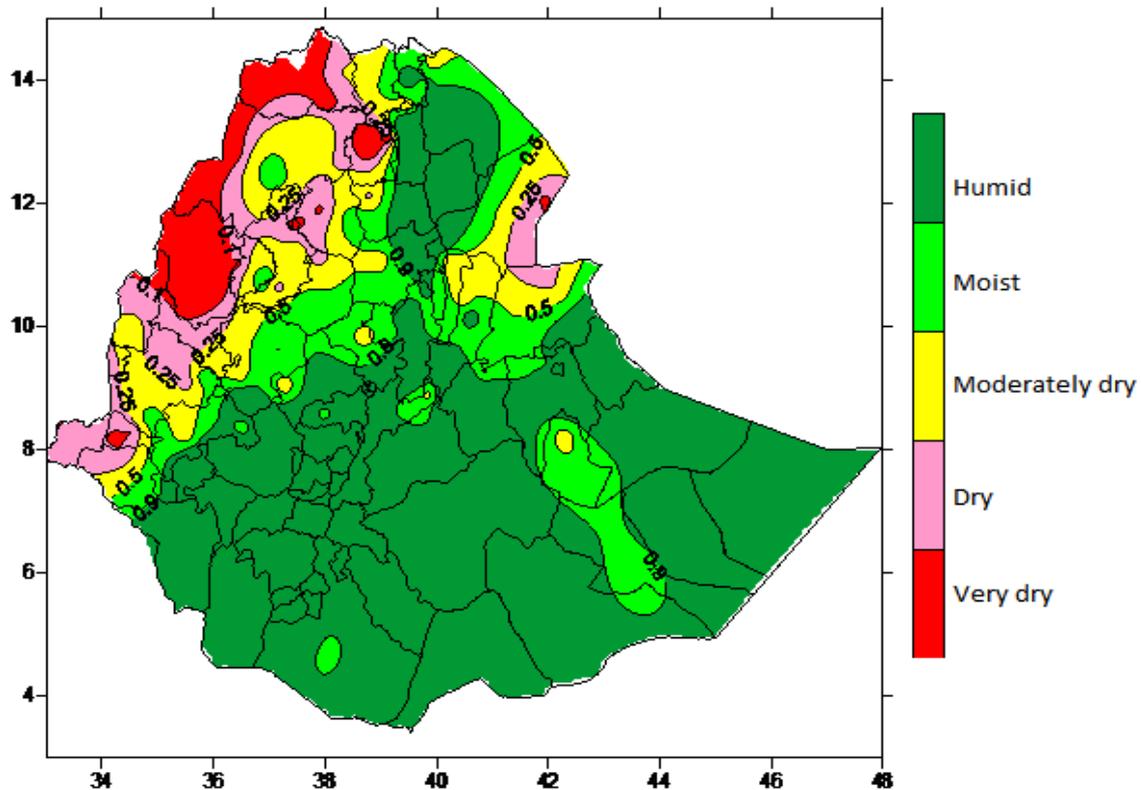


Fig. 5 moisture status for the month of April, 2018

As indicated on the moisture status map above, Except western half of Amhara, Tigray, Gambela and much of Benshangul-Gumuze, some parts of Southern Afar and northern Somali experienced moist to humid moisture condition which might have favored ongoing agricultural activities, water availability for Belg crops found at different stages of growth, perennial plants, drinking water and pasture availability over pastoral and agro pastoral areas.

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

In general, during the month of April 2018 rain bearing meteorological phenomena was strengthening in amount and distribution over much of Belg rain benefiting and Belg producing area of the country. This situation might have positive impact on moisture requirement of different Belg and long cycle Meher crops found at various phases of growth, perennial plants, general agricultural activities, improve pasture and drinking water availability in pastoral and agro pastoral low land areas. Besides, the observed heavy rainfall particularly southern half and some eastern parts of the country might have positive impact on the ongoing Belg agricultural activities normally water deficit areas and water harvesting where that can be used in time of deficit. Moreover the observed widespread rainfall distribution could also have indispensable contribution on the availability of pasture and drinking water for pastoral areas. On the other

hand, extreme heavy fall (50.0 – 102.9) mm in one rainy day observed over south, south west, east and northeast parts of the country may cause flood and water logging on crops field in low lying areas and soil erosion on sloppy areas as well as it could affect the sowing activities by washing away the newly sown seeds in areas where sowing activities are the main practices at this time of the year.

2.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH

During the month of May, under normal circumstances, the rain producing systems are expected to be weakening particularly after the mid of the month and gradually from the Belg-growing areas whereas strengthening across western half and southern parts of the country. Hence, the rainfall activities both in distribution and amount would be better over western, southern and southwestern Ethiopia. Therefore, it will be increased gradually over the above mentioned portions of the country.

In the coming month of May 2018, the meteorological forecast information indicates that the seasonal rainfall activity is expected to continue over much of Belg rainfall benefiting area of the country. In line with this, Most zones of SNNPR, Gambella, western, northern and eastern shewa, Oromia region of western and eastern Harerge, Arsi and Bale, Borena and Guji, Addis Ababa, Amhara region of south and north Wello, south and north Gonder, Bahir dar zuria, western and eastern Gojam, and Awi zone, Tigray region of all zones, Afar region of Zone 3, 4, and 5, Benshangu-Gumuze, Most of Somali zones, Harari and Dire dawa, expected to get slight to heavy rainfall. This situation expect to improve moisture requirement of Belg and long cycle Meher crops found at different phases of growth, perennial plants, pasture and drinking water availability in pastoral and agro pastoral areas. However, the expected heavy fall over some areas of the aforementioned areas would have a negative impact on crop fields' particularly over low-lying areas and anticipated to generate flash floods due to raise water levels across the river banks. Thus, proper attention should be undertaken to minimize the risk in areas where there is no proper drainage system and low-lying areas making furrow and channel in order to reduce the effect of excess rain. Moreover, the expected excess moisture on crop fields favors for the infestation of weeds and outbreak of pest and disease. Thus, the concerned personnel should take proper precaution and take day to day visit crop fields' to mitigate the effect.

DEFINITION 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.

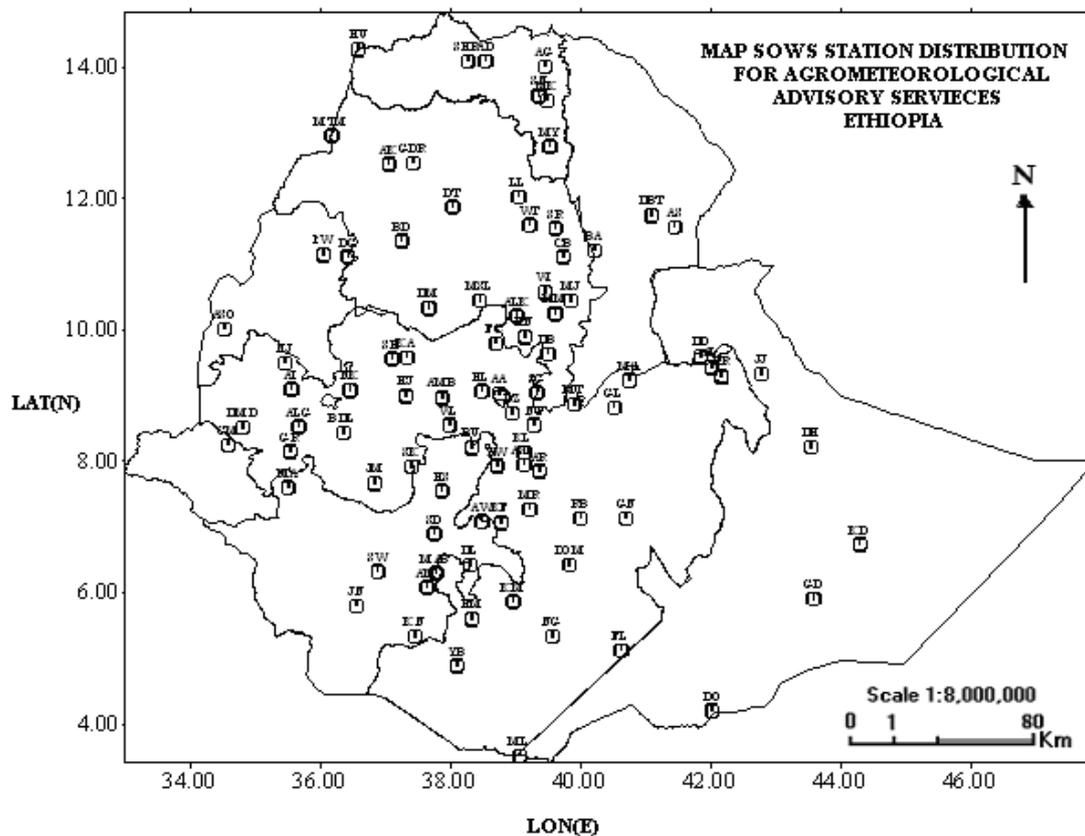
DEKAD: - First or second ten days or the remaining days of a month.

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	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		