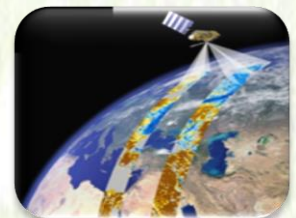


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FOREWARD

This Agro met Bulletin is prepared and disseminated by the Ethiopia Meteorology Institute (EMI). 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

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አህፅሮት

እ.ኤ.አ ፌብሩዋሪ 2023

ባሳለፍናቸው የፌብሩዋሪ የመጀመሪያዎቹ አስር ቀናት በአብዛኛው የሀገሪቱ ክፍሎች ላይ ደረቃማ የእርጥበት ሁኔታ አመዝኖ የሰነበተ ነበር። ከዚህ ጋር በተያያዘም የሌሊትና የማለዳው ቅዝቃዜ ከ5 ዲ.ሴ በአንዳንድ ደጋማ ስፍራዎች ከ0 ዲ.ሴ በታች የሆነ ዝቅተኛ የሙቀት መጠን እንደተመዘገበ መረጃዎች ያሳያሉ። በመሆኑም የነበረው ቅዝቃዜ በመስኖ በሚለሙ የደጋ ሰብሎች፣ በቋሚ ተክሎችም ሆነ በጓሮ አትክልቶች ላይ በመጠኑም ቢሆን አሉታዊ ተጽዕኖ እንደነበረው ነው። በሌላ በኩል ደግሞ በሰሜን ምሥራቅ፣ በደቡብ ምሥራቅ፣ በደቡብ ምዕራብና በምሥራቅ የሀገሪቱ ቆላማ አካባቢዎች ላይ የቀኑ ከፍተኛ የሙቀት መጠን አንፃራዊ መጨመር ያሳየ ሲሆን፣ ከ35 ዲ.ሴ በላይ የሆነ የሙቀት መጠን በአንዳንድ ስፍራዎች ላይ ተመዝግቧል። ይህም የነበረው ፀሐይማና ሞቃታማ የአየር ሁኔታ ከነበረው የእርጥበት እጥረት ጋር ተዳምሮ በወቅቱ አጠቃላይ የግብርና ሥራ እንቅስቃሴ እንዲሁም በአርብቶ አደሩ አካባቢ የእንሰሳት መኖር ውኃ አቅርቦት ላይ አሉታዊ ተፅዕኖ እንደአሳደረ ነው።

ባሳለፍነው የፌብሩዋሪ የሁለተኛ አስር ቀናት በአብዛኛው የሀገሪቱ ክፍሎች ደረቅ፣ የእርጥበት ሁኔታ አመዝኖ የሰነበተ ነበር። ከዚህም ጋር በተያያዘ የሌሊትና የማለዳው ቅዝቃዜ በአንዳንድ ደጋማ ስፍራዎች ከ5 ዲ.ሴ በታች የተስተዋለ ቢሆንም በአንጻሩ ግን በተለይም በሰሜን፣ በመካከለኛው፣ በደቡብና ምዕራቅ ደጋማ ስፍራዎች ላይ ተዳክሞ እንደነበር የተተነተኑ መረጃዎች ያሳያሉ። ይህም ሁኔታ በተወሰነ መልኩ በአንዳንድ ቦታዎች ላይ አሉታዊ ጎን ቢኖረውም በአብዛኛው ጎኑ ለውርጭ ተጋላጭ የሆኑ ተክሎችን በውርጭ የመጠቃት እድል ይቀንሳል። በሌላ በኩል ደግሞ በሰሜን ምሥራቅ፣ በደቡብ ምሥራቅ፣ በደቡብ ምዕራብና በምሥራቅ የሀገሪቱ ቆላማ አካባቢዎች ላይ የቀኑ ከፍተኛ የሙቀት መጠን አንፃራዊ መጨመር ያሳየ ሲሆን፣ ከ35 ዲ.ሴ በላይ የሆነ የሙቀት መጠን በአንዳንድ ስፍራዎች ላይ ተመዝግቧል። ይህም የነበረው ፀሐይማና ሞቃታማ የአየር ሁኔታ ከነበረው የእርጥበት እጥረት ጋር ተዳምሮ በወቅቱ አጠቃላይ የግብርና ሥራ እንቅስቃሴ እንዲሁም በአርብቶ አደሩ አካባቢ የእንሰሳት መኖር ውኃ አቅርቦት ላይ አሉታዊ ተፅዕኖ ነበረው።

ባሳለፍናቸው የፌብሪዋሪ የመጨረሻዎቹ ስምንት ቀናት በተለይም በምስራቅ፣ በሰሜን ምስራቅ፣ በደቡብ፣ በደቡብ ምዕራብና በመካከለኛው የሀገሪቱ ክፍሎች ላይ ከቀላል እስከ መካከለኛ መጠን ያለው ዝናብ ከመኖሩ ጋር ተያይዞ የእርጥበት ሁኔታው ከቀን ወደ ቀን መሻሻል እንደነበረው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡና የተተነተኑ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። ይህም የተገኘው እርጥበት የአፈር ውስጥ እርጥበትን ከማሻሻል አንጻር ለበልግ ወቅት እርሻ የማሳ ዝግጅት ለማከናወን ምቹ የነበረ ከመሆኑም ባሻገር ለቋሚ ተክሎች የውኃ ፍላጎት መሟላት፣ ለአርብቶ አደርና ለከፊል የአርብቶ አደር አካባቢዎች ለግጦሽ ሣርና ለመጠጥ ውኃ አቅርቦት አዎንታዊ ሚና ነበረው ።

በአጠቃላይ በፌብሪዋሪ ወር የነበረው የእርጥበት ሁኔታ ሲገመገም በመጀመሪያዎቹ እና በሁለተኛዎቹ አስር ቀናት ሞቃታማ እና ፀሃያማ የአየር ሁኔታ በአብዛኛዎቹ የሀገሪቱ አካባቢዎች ላይ አመዝኖ የቆየ ሲሆን ነገር ግን በሶስተኛው አስር ቀናት የተወሰነ እርጥበት ወደ ሀገራችን አንዲገባ ምቹ ሁኔታ በመፈጠሩ አንዳንድ የሀገሪቱ አካባቢዎች በተለይም በደቡብ ብሄር ብሄረሰቦችና ህዝቦች፣ በሲዳማ፣ በደቡብ ምዕራብ ኢትዮጵያ እና በምዕራብና መካከለኛው ኦሮሚያ ክፍሎች እንዲሁም በጥቂት የደቡብ ደጋማ ስፋራዎችና በምስራቅ ኢትዮጵያ አካባቢዎች ላይ ከቀላል እስከ ከፍተኛ መጠን ያለው እርጥበት እንደነበራቸው ከተለያዩ የሀገሪቱ ክፍሎች የተሰበሰቡና የተተነተኑ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። ከዚህም ጋር ተያይዞ በውሩ የተገኘው እርጥበት የበልግ ሰብል በስፋት አምራች ለሆኑት ለደቡብ ምእራብ አካባቢዎችም ሆነ ለሰሜን ምስራቅ እና ለመካከለኛው የሀገሪቱ አካባቢዎች ላይ የአፈር ውስጥ እርጥበትን ከማሻሻል አንጻር የማሳ ዝግጅት ለማድረግ አዎንታዊ ሚና ነበረው፡ ፡ በተጨማሪም ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት፣ ለመጠጥ ውሃ እና ለግጦሽ ሳር አቅርቦት የጎላ ሚና ነበረው።

SUMMARY

February 2023

During the first dekad of February 2023, according to the Agro-meteorology information collected from different part of the country dry, sunny and hot weather condition has observed across much parts of the country. This situation might favor areas where harvest and post-harvest agricultural activities are not fully completed. On the other hand, the extreme minimum temperature over the northern, central and eastern frost prone highland areas of the country recorded below 5⁰C and even some stations recorded below zero ⁰ C in some days. In line with this, Jimma 2.0, 3.0, and 4.0, Debre berhan -2.0, -0.8, 0.8, 4.8 and -1.0, Haromaia -2.2, 3.8, 4.0 and 1.0, Amba mariam 4.8, Bui 4.6, Emideber 4.6, Mehal meda 1.0, 2.2, and 4.8 Wegel tena 0.5, 1 .0, 1 .2, 2.0, 2.2 and 3.5 ⁰C. This situation could have slight negative impact on irrigated Bega season crops, perennial plants and vegetables. On the other hand the extreme maximum temperature above 35 ⁰C was recorded over north-eastern, south-eastern south western and eastern low land parts of the country. This condition might enhance evapotranspiration that in turn could deplete the soil moisture and that might affect pasture and water availability over pastoral and agro pastoral areas.

During the second dekad of February 2023, across most parts of the country dry moisture condition was observed. In relation to this, some highland areas experienced cold night and morning as a result of a record of extreme minimum temperature below 5°C, including, Jimma 2.0, 2.4 and 3.4, Debrebrehan 0.2, 0.8, 3.2 and 4.8, Haromaya 0.2, 2.4, 2.8, 3.2, 3.0, 3.8 and 4.0 Amba Mariyam 4.2, 4.4, 4.6 and 4.8, Bui 3.4 and 3.4, Emdiber 4.9, Mehalmeda 1.0, 2.2, and 4.8 more over Wegeltena 1.5, 2.2, 2.6, 3.0, 3.4 and 3.5, Arsi 2.5, 3.5 and 4.5. However, minimum air temperature weakened especially in the northern, central, southern and eastern highlands of the country. On the other hand, daily extreme maximum temperature has shown a relative increase in the arid and semi-arid areas of the country in the northeast, southeast, southwest and east. In line with this some places recorded Temperatures above 35°C. This, coupled with the lack of moisture in the sunny and hot weather, had a negative impact on the early preparation of Belg season agricultural activity as well as the provision of animal feed and drinking water for over most of the rang land.

During the third Dekade of February 2023, especially over eastern, northeastern, south, south-west, and central parts of the country received light to moderate rainfall and

some places recorded heavy fall >30 in one rainy day like Diredawa 33.0, Maji 35.0, Jinka 32.0, Limugenet 34.0 mm experienced rain fall. In relation to this the moisture condition was enhanced and have positive role for land preparation, sowing activity of Belg crops as well as satisfy the water need of perianal plants and for availability of pastors and drinking water and pastoral and agro-pastoral areas.

In general, during the month of February, particularly in the first and second dekad of the month, dry moisture condition prevailed across most parts of the country. However, during the last dekad, some places had received certain amount of moisture. According to agro-meteorological information collected from various parts of the country, light to moderate rainfall was recorded in the SNNPR, Sidama r, south-western region of the country, western and central Oromia, some areas of southern highlands and eastern Ethiopia. Moisture obtained during the month played certain positive role for conducting land preparation in the southwest, the nort-east and central parts of the country, where Belg season agricultures are practiced widely. In addition, it might also have positive contribute toward the supply of water for perennial plants and ensure the availability of drinking water and pasture for pastoral and agro pastoral communities.

1. WEATHER ASSESSMENT

1.1. Rainfall amount (21 – 28 February, 2023)

During Third Dekad of February 2023, Central, West and South Tigray, Waghimera, North Wello, Oromia Zone, pocket areas of Afar Zone 3&s, Shineli, pocket areas of East Hararghe, pocket areas of Illibabur Guragi, Siliti, Alaba and Hadiya, Sheka, Jimma, Godere, Kefa, Dawero, Sidama, pocket areas of Bale, South Omo, Amaro, Konso and pocket areas of Borena Zones are Exhibited 5-25 mm rain fall. Pocket areas of Jimma, South Omo and Konso Zones are 25-50 mm rain fall recived. The rest part of the country was exhibited 0-5mm rain fall.

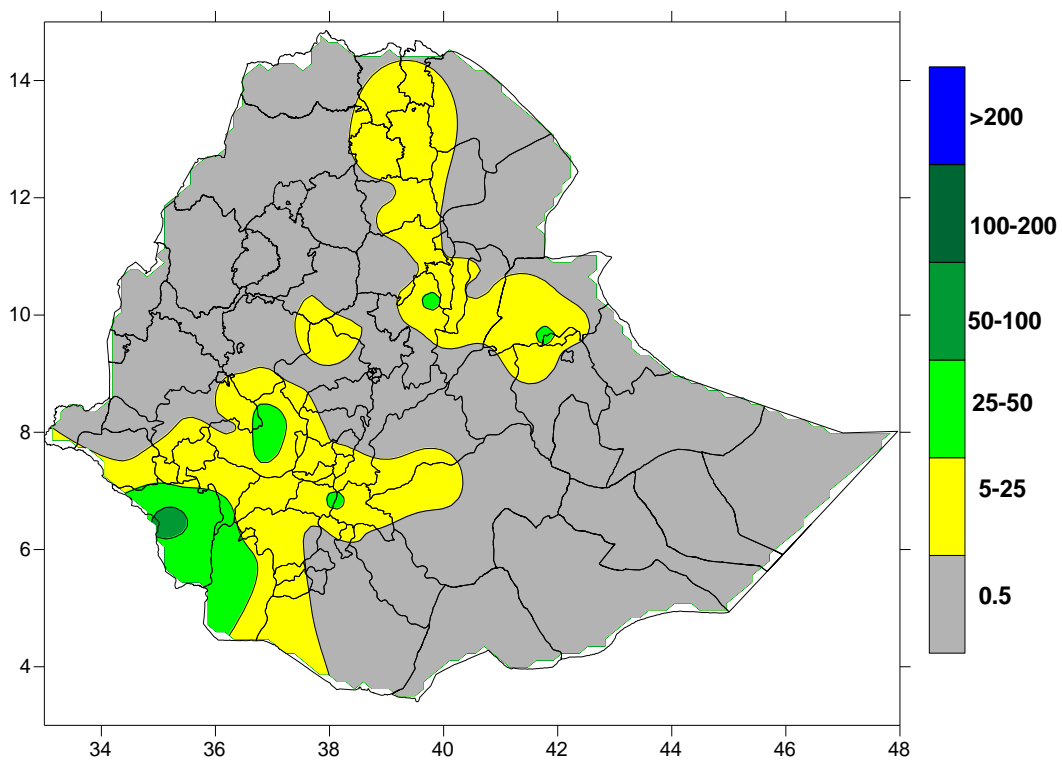


Figure 1. Rainfall distribution in mm (21– 28) February 2023

1.2. Rainfall Anomaly (21 – 28 February, 2023)

During the Third Dekad of February 2023, the rain fall anomaly Shineli, pocket areas of Afar Zone 3&5, South West Shewa, Jimma, Pocket areas of Illibabur, Alaba, Hadiya, Dawero, Sidama, Godere, Seka, Kefa, Bench maji, South Omo, Konso, pocket areas of Borena, Zones are Normal to Above Normal Rain fall was exhibited. on the other hand, much of the country was experienced Below Normal rainfall.

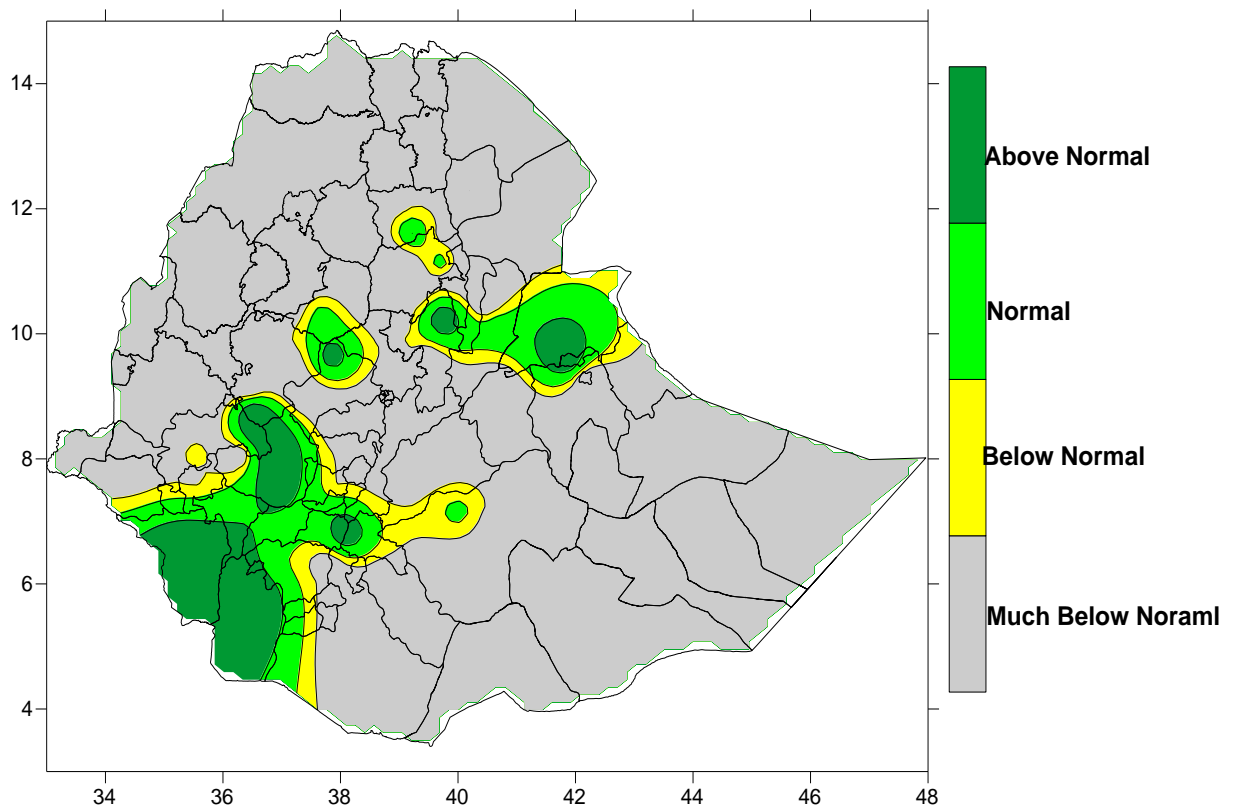


Figure 2: Percent of normal rainfall distribution (21– 28) February 2023

Explanatory notes for the Legend

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

1.3. Moisture Condition (21 – 28 February 2023)

During Third Dekad of February 2023, North Wello, Oromia Zone, pocket areas of Afar Zone 3&s, Shineli, pocket areas of East Hararghe, pocket areas of Illibabur Guragi, Siliti, Alaba and Hadiya, Sheka, Jimma, Godere, Kefa, Dawero, Sidama, pocket areas of Bale, South Omo, Amaro, Konso and pocket areas of Borena Zones are moist to Humid Moisture conditions. On the other hand, the rest part of the country was Dry to Very dry condition.

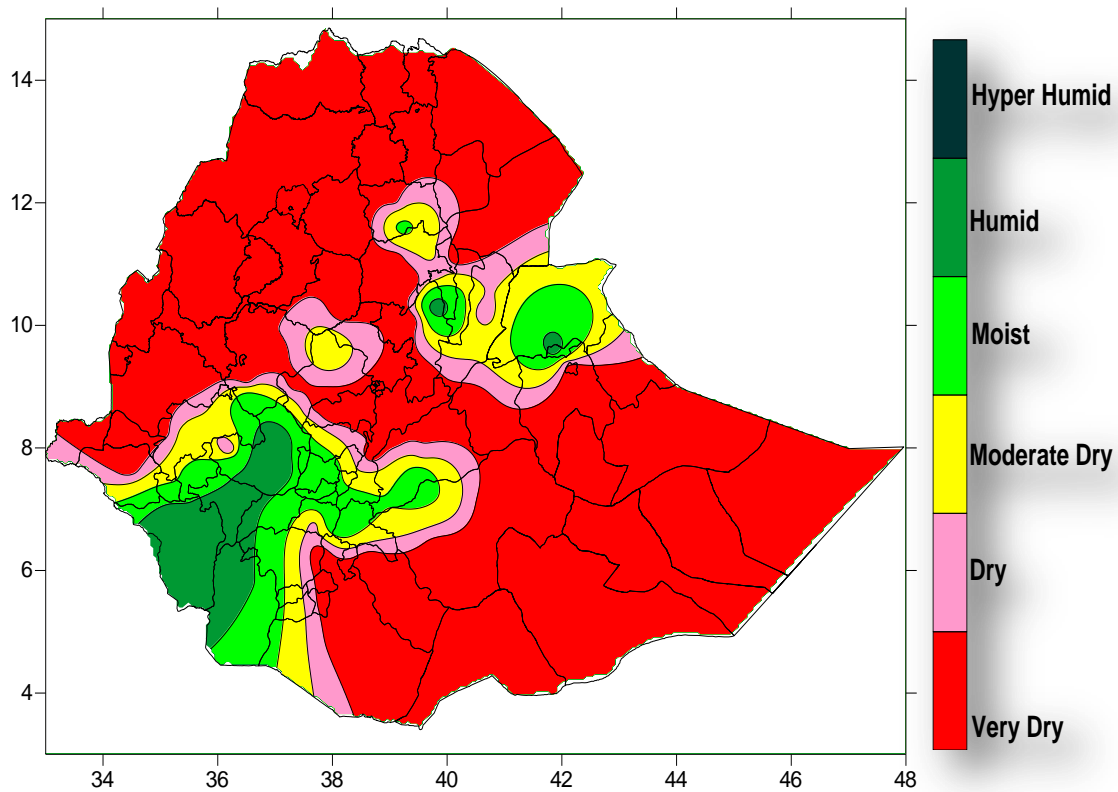


Figure.3. Moisture Status (21– 28) February 2023

1.4. Rainfall amount on the month of February 2023

During the month of February 2023, Waghimera, North Wello, Oromia Zone, pocket areas of Afar Zone 3&s, Shineli, pocket areas of East Hararghe, pocket areas of Illibabur Guragi, Siliti, Alaba and Hadiya, Sheka, Jimma, Godere, Kefa, Dawero, Sidama, pocket areas of Bale, South Omo, Amaro, Konso and pocket areas of Borena Zones are Exhibited 5-25 mm rain fall. Pocket areas of Jimma, South Omo and Konso Zones are 25-50 mm rain fall received. The rest part of the country was exhibited 0-5mm rain fall.

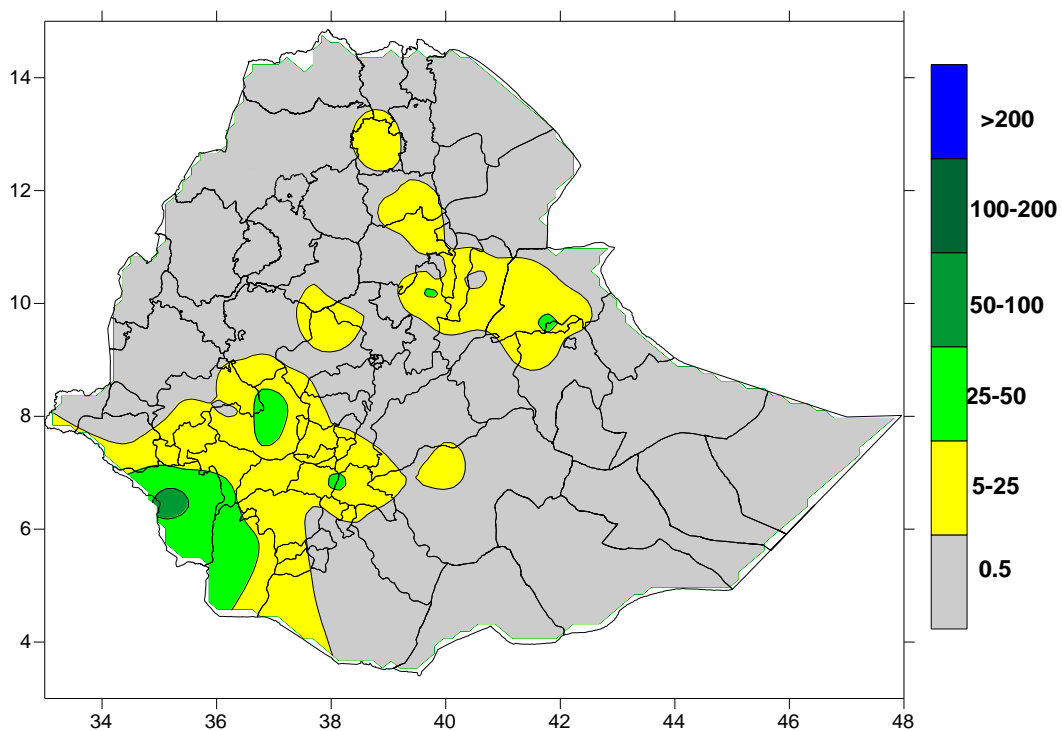


Fig. 4 Rainfall amount in mm for the month of February 2023

1.5. Rainfall Anomaly on the month of February 2023

During the month of February 2022, pocket area of north and south Gonder, Wag Himra, north Wollo, Bahir Dar, west and east Gojam, Agew –Awi, Metekel, west and east Wellega, Kamashi, Illubabur, Sheka, Keffa, Basketo, Gamo gofa, South Omo and Dirashe receive Normal to Above Normal. The rest parts of the countries receive Below Normal too Much Below Normal.

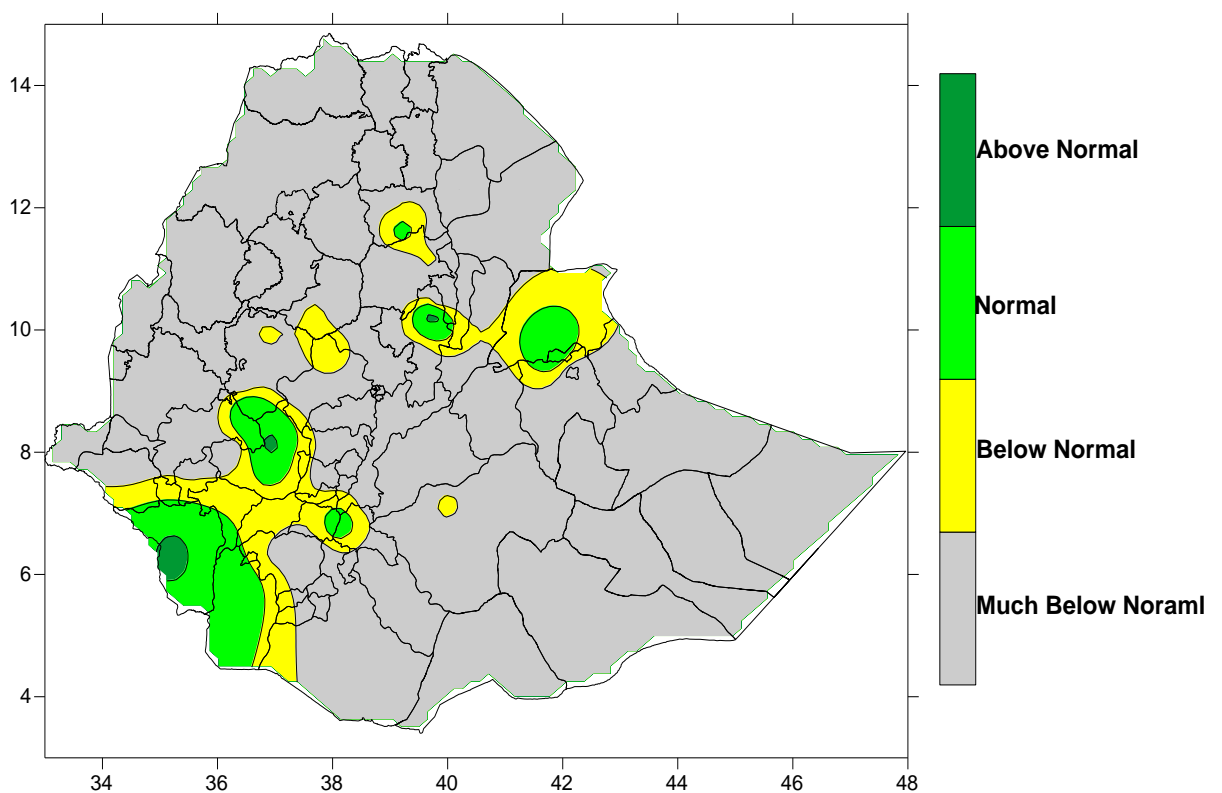


Fig. 5 Percent of Normal Rainfall for the month of February 2023

Explanatory notes for the Legend

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

1.6. Moisture status on the month of February 2023

As indicated on the month of February 2023, the moisture condition over pocket areas of Shineli, Jimma, Bench Maji, Keffa , South Omo zones are Moderate dry. The rest part of the country Dry to Very Dry Moisture condition

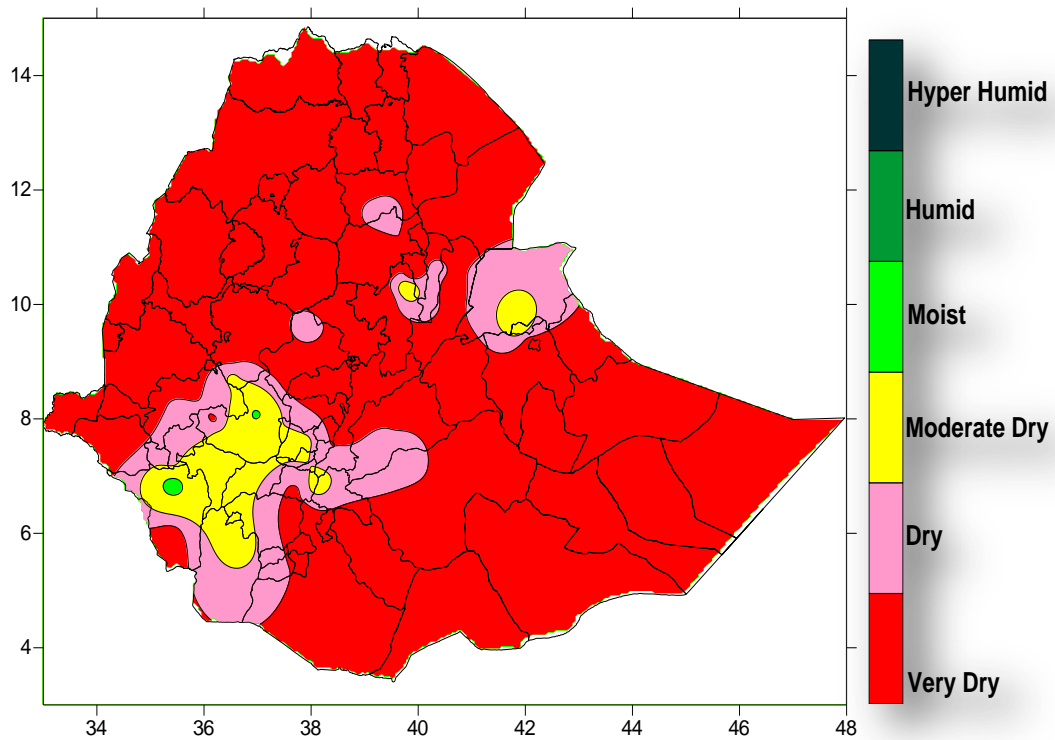


Fig. 6 moisture status for the month of February 2023

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. Vegetation Condition and Impact on Agriculture

During Month of February 2023, Vegetation condition are slightly decreasing from first dekade up to last Dekade of the month and some part of Western and North eastern part of the country are better vegetation coverage compared to another part of the country.

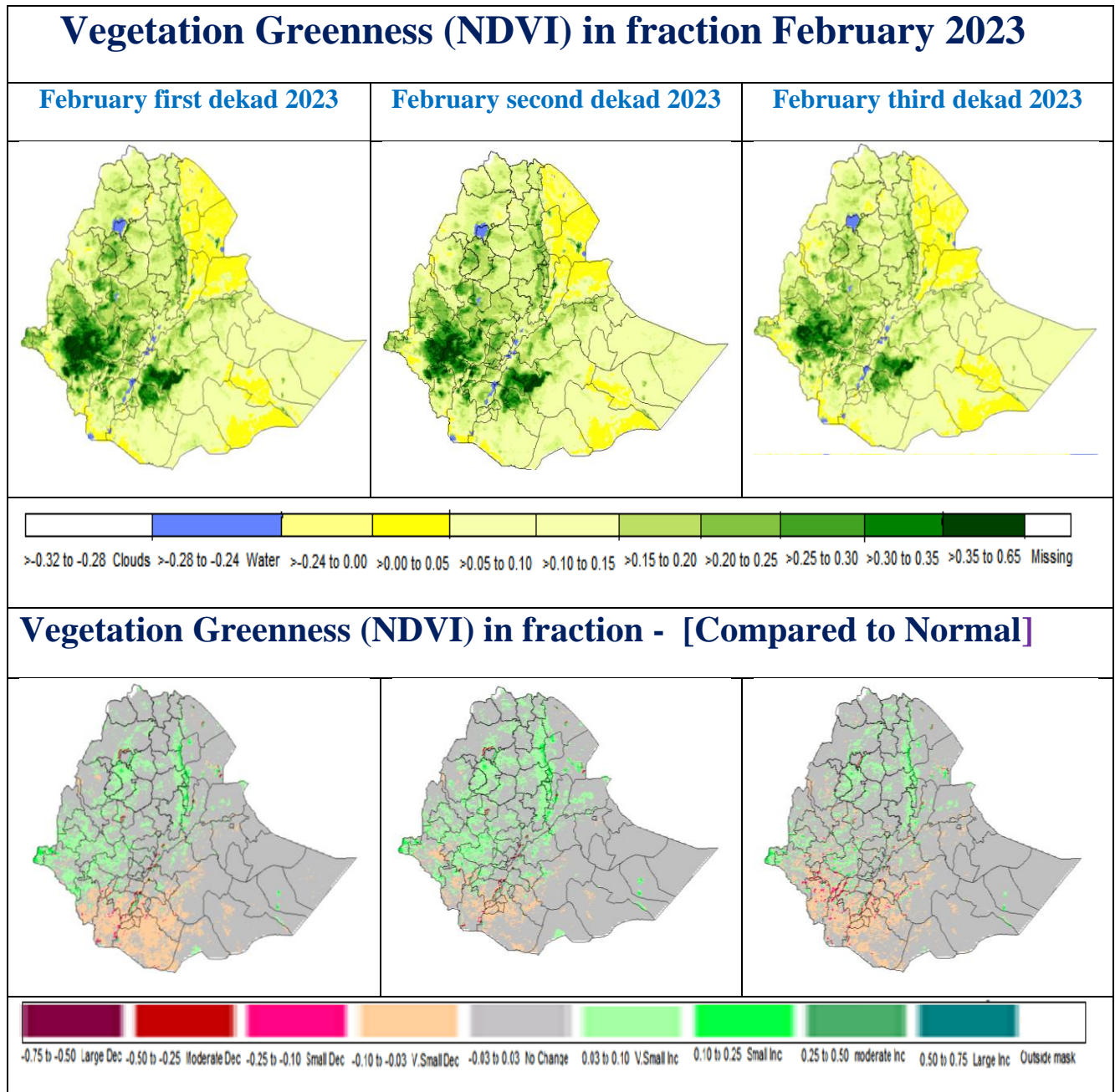


Fig. 7 Vegetation Greenness (NDVI) in fraction and Compared to Normal February 2023

2.2. Expected Weather Impact on Agriculture during the Coming Month of March, 2023

Normally in the Month of March Belg rain systems strength most part of Belg growing and rain benefiting areas received the seasonal rainfall and in relation to this most farmers are widely involved in land preparation and sowing of Belg crops.

According to the weather forecast indicated in the coming month of March 2023, rain bearing weather systems likely to be strengthening over Belg rain beneficiary areas particularly central, north-eastern, eastern and south-western parts of the country. Which condition may have high chance of getting better moisture during the coming month of March. This situation would have expected to be favorable to perform land preparation and sowing of various Belg season crops over Belg crop growing areas. Moreover, the expected enhanced moisture may also favor to satisfy the daily water need of perennial plants and the expected to extend moisture after the mid of the month ensure the availability of pasture and drinking water over the south and south-eastern pastoral and agro pastoral communities that indicated in the moisture expected areas. However, as it was indicated in the weather outlook, some places across the country are likely to experience erratic and low moisture enhanced over the country. which will have expected to experience moderate to high probability of moisture stress on Belg agricultural activities and availability of pastor and water. Thus, farmers are advised to make their own plan for collecting and storing of rain water particularly for moisture stress areas so that they may utilize it at the time of consecutive dry days on the coming month.

1. 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 south eastern 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 north-eastern 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.

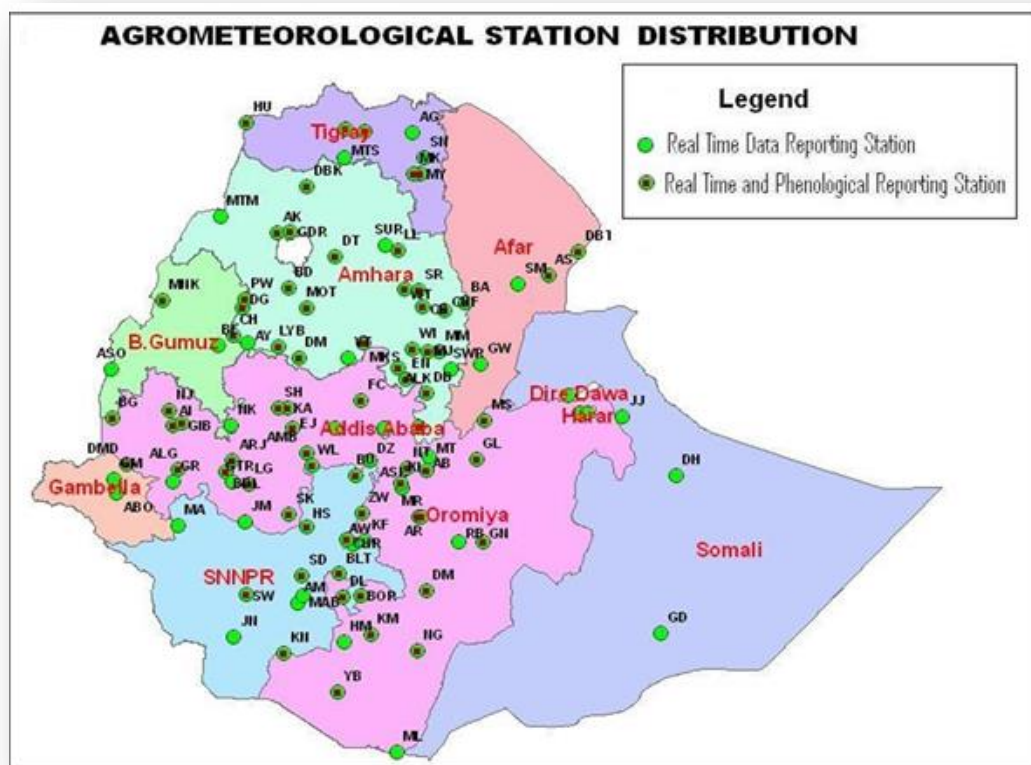
DEKAD: - First or second ten days or the remaining days of a month.

EXTREME TEMPERATURE:- The highest or the lowest temperature among the recorded maximum or minimum temperatures respectively.

ITCZ:- Inter-tropical 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 south-eastern 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. 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
AlemKetema	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	SG
Assosa	ASO	Filtu	FL	M/Abaya	MAB	Gebeya	SR
Awassa	AW	Gambela	GM	Maichew	MY	Sirinka	SR
Aykel	AK	Gelemso	GL	Majete	MJ	Sodo	SD
B. Dar	BD	Ginir	GN	Masha	MA	WegelTena	WT
Bati	BA	Gode	GD	Masha	MA	Woliso	WL
Bedelle	BDL	Gonder	GDR	Mekele	MK	Woreilu	WI
BUI	BU	Gore	GR	Merraro	MR	Yabello	YB
Combolcha	CB	H/Mariam	HM	Metehara	MT	Ziway	ZW
D. Berehan	DB	Harer	HR	Metema	MTM		
D. Harbour	DH	Holler	HL	Mieso	MS		
D. Markos	DM	Hossaina	HS	Moyale	ML		
				M/Selam	MSL		