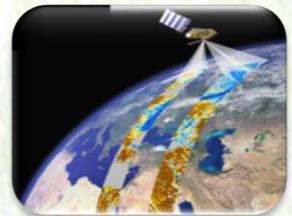


# ETHIOPIA METEOROLOGY INSTITUTE

## Agrometeorological Bulletin

### TEN DAY AGROMETEOROLOGICAL BULLETIN

*11-20 February 2023 VOLUME: -41 No. 04 DATE OF ISSUE: February 22,2023*



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# TABLE OF CONTENTS

<b>FOREWARD</b> .....	<b>3</b>
<b>SUMMARY</b> .....	<b>4</b>
<b>1. WEATHER ASSESSMENT</b> .....	<b>5</b>
<b>1.1. Rainfall amount (11 – 20 February, 2023)</b> .....	<b>5</b>
<b>1.2. Rainfall Anomaly (11 – 20 February, 2023)</b> .....	<b>6</b>
<b>1.3. Moisture Condition (11 – 20 February 2023)</b> .....	<b>7</b>
<b>2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE</b> .....	<b>7</b>
<b>2.1. Vegetation Condition and Impact on Agriculture</b> Error! Bookmark not defined.	
<b>2.2. Expected Weather Impact on Agriculture during the Coming February 3<sup>rd</sup> Dekad, 2023</b> .....	<b>9</b>
<b>3. DEFINITION OF TERMS</b> .....	<b>10</b>

## **FOREWARD**

This Agro met Bulletin is prepared and disseminated by the Ethiopian 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.

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## SUMMARY

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 5<sup>0</sup>C and even some stations recorded below zero <sup>0</sup> 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 <sup>0</sup>C. 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 <sup>0</sup>C 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<sup>0</sup>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. has shown a relative increase in the and semi-arid areas of the country in the northeast, southeast, southwest and east. In line with this some place recorded Temperatures above 35<sup>0</sup>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

# 1. WEATHER ASSESSMENT

## 1.1. Rainfall amount (11 – 20 February, 2023)

During the second Dekad of February 2023, the whole country exhibited 0-5mm Rainfall

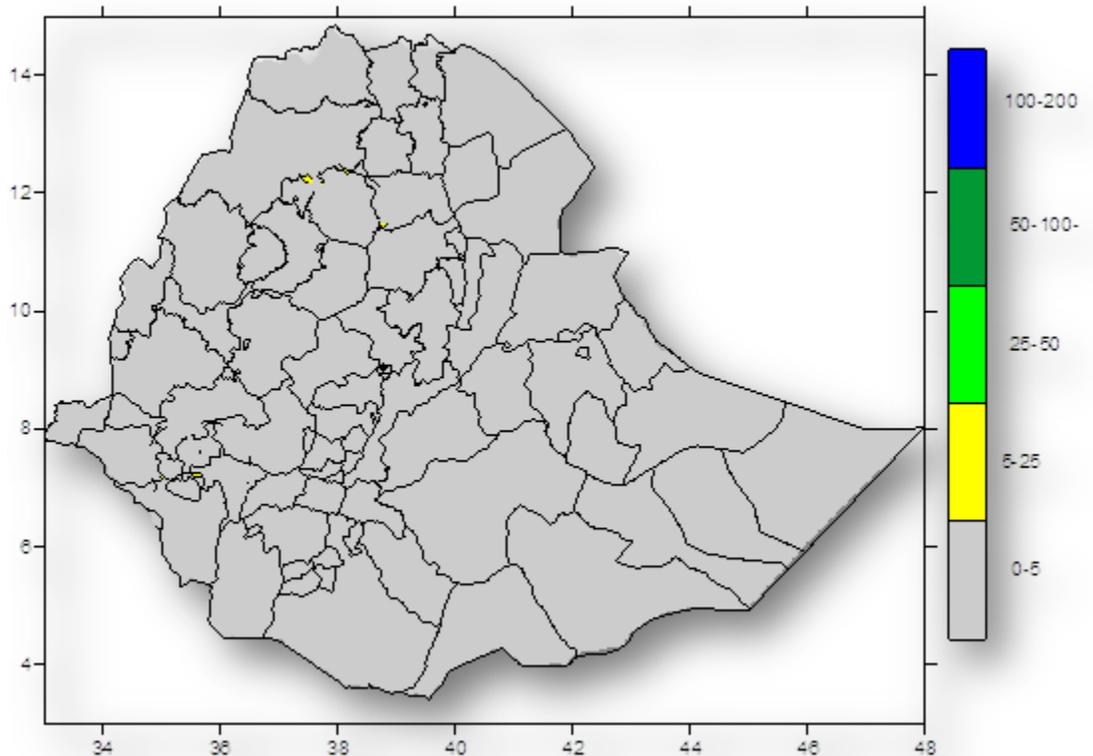


Figure 1. Rainfall distribution in mm (11– 20) February 2023

## 1.2.Rainfall Anomaly (11 – 20 February, 2023)

During the second Dekad of February 2023, much of the country was experienced Below Normal rainfall.

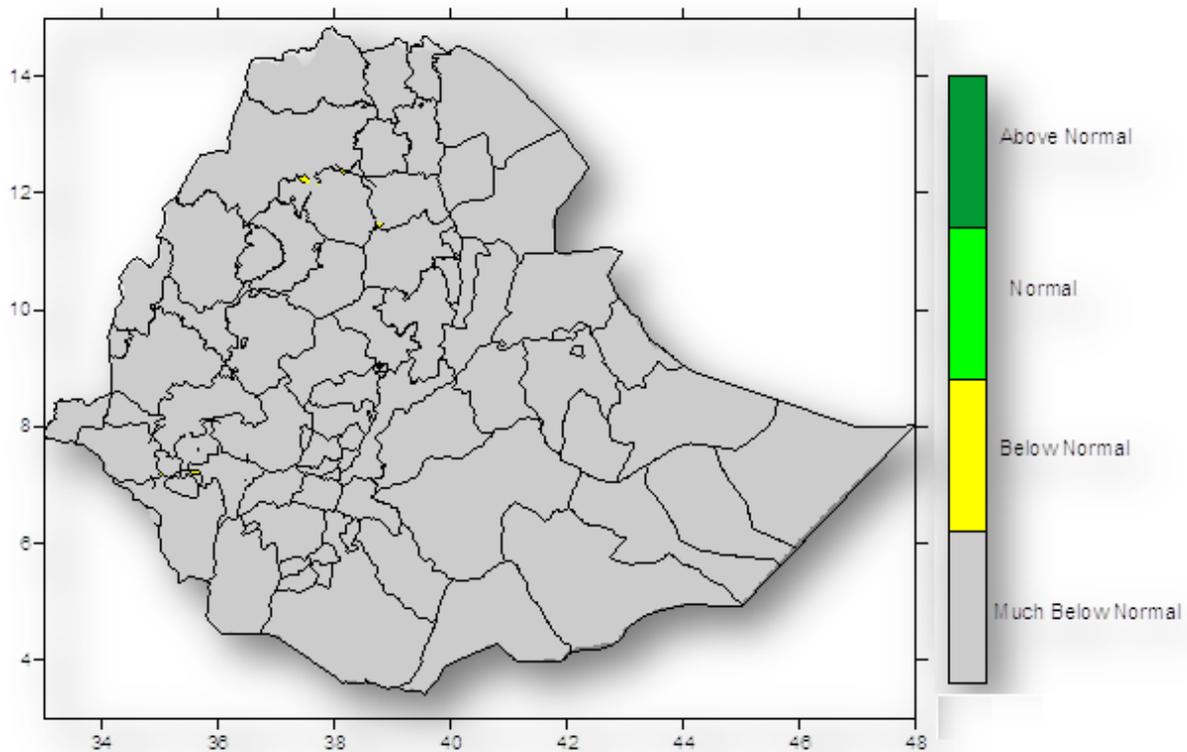


Figure 2: Percent of normal rainfall distribution (11-20 February 2023)

### Explanatory notes for the Legend

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

Figure.3. Moisture Status (11-20 February, 2023)

### 1.3. Moisture Condition (11 – 20 February 2023)

During the second Dekad of February 2023, the whole parts of the countries experienced Dry to Very Dry.

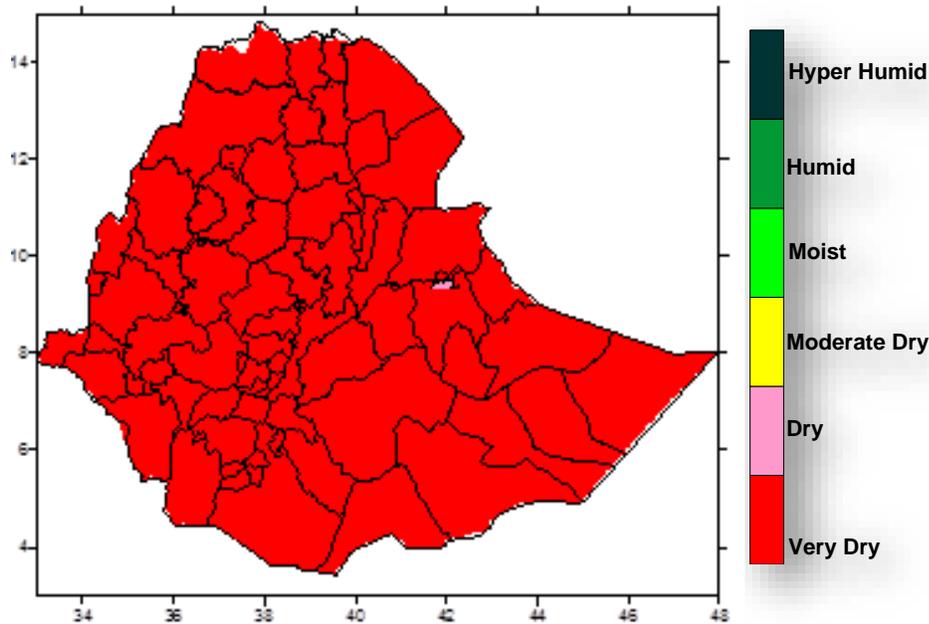


Figure.3. Moisture Status (11-20 February, 2023)

## 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

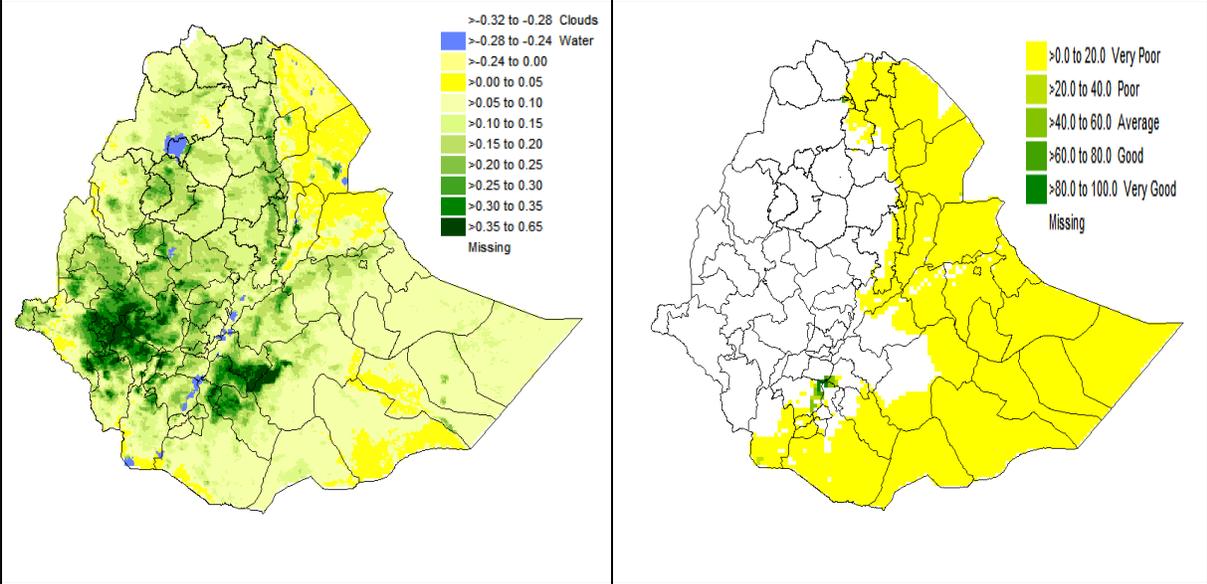
### 2.1. Vegetation Condition and Impact on Agriculture

In the last decade of February 2023 the data received from satellite the NDVI (Normalized Difference of Vegetation Index) indicates, the plant cover was good in some pocket areas of West and South-West part of the country . on the other hand, most parts of the country the plant cover was poor.

During second Dekad of February 2023 the Rangeland Index indicates that was very poor range lad condition was observed on pastoral and Agro-pastural areas of the country

# NDVI and Rangeland WRSI February 11-20 2023

## NDVI February 2<sup>nd</sup> dekad 2023 RWRSI February 2<sup>nd</sup> dekad 2023



## NDVI and Rangeland WRSI Compared with Normal

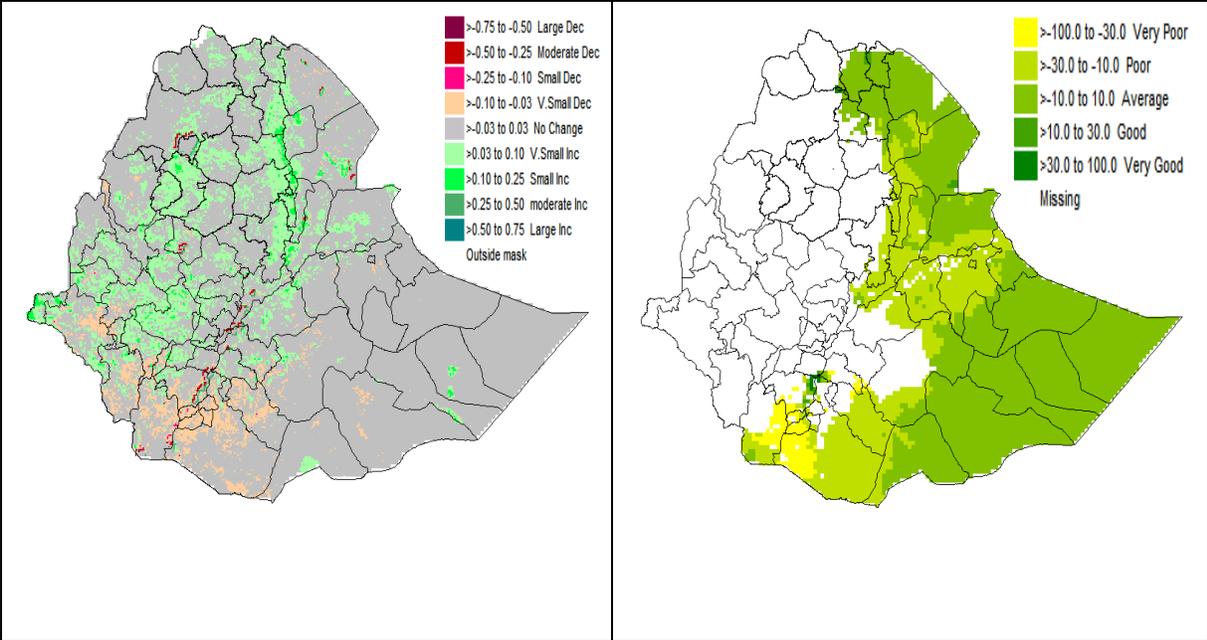


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal February 11-20, 2023

## **2.2. Expected Weather Impact on Agriculture during the Coming February 3rd Dekad, 2023**

In normal condition, the third dekad of February is the period when most part of Belg growing areas starts to receive the seasonal rainfall and in relation to this most farmers are involved in land preparation and sowing of Belg season growing crops. Based on the weather forecast, it is expected that there will be an increase in moisture in relation to the availability of better cloud cover over the spring growing areas in the next eight days. This situation is expected to have a positive role, especially in the areas where the crops have been fully harvested and preparations are being made for the Belg season. On the other hand, forecast data indicates that dry days may continue to prevail in the remaining areas of the south and southeast that benefit from the autumn rains. This situation, coupled with the dry conditions of the previous ten days, is expected to have a negative impact on the growth of grazing grass and the supply of drinking water for areas that practice pastoralism and combined agriculture.

### **3. 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.

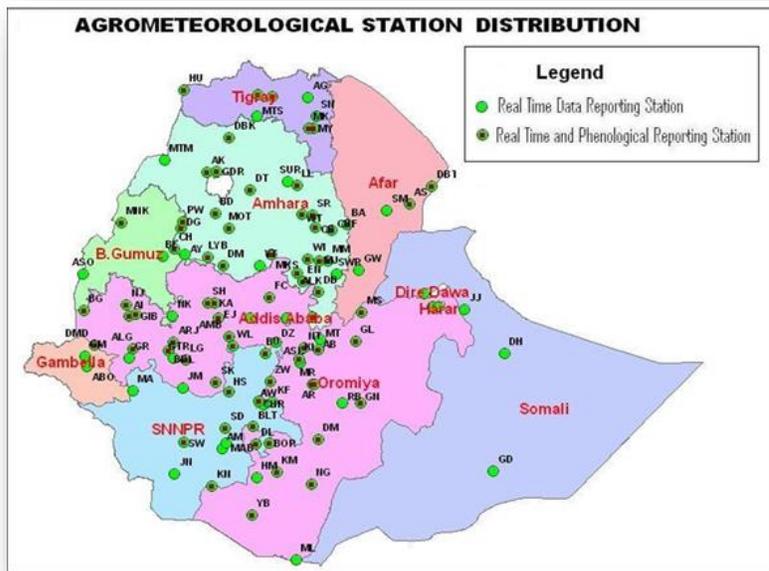
**DEKAD:** - First or second ten days or the remaining days of a month.

**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	SD
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	Gore	GR	Metehara	MT	Ziway	ZW
D. Berehan	DB	H/Mariam	HM	Metema	MTM		
D. Habour	DH	Harer	HR	Mieso	MS		
D. Markos	DM	Holleta	HL	Moyale	ML		
		Hossaina	HS	M/Selam	MSL		