# ETHIOPIA METEOROLOGY INSTITUTE Agrometeorological Bulletin

### **TEN DAY AGROMETEOROLOGICAL BULLETIN**













Ethiopia Meteorology Institute P.O.BOX 1090, ADDIS ABABA, ETHIOPIA

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#### FORE WARD

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 EMI P.O.Box 1090 Tel: 011661-57-79 FAX 00251-11-6625292 E-mail nmsa@ethionet.et <u>Addis Ababa</u>

#### SUMMARY

During the third Dekade of February 2024, especially over Belg growing and rainfall benefiting areas of the country received light to moderate moisture and some places recorded heavy fall >30 in one rainy day. 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 over pastoral and agro-pastoral areas.

During the first dekad of March, due to the relative strengthening of rain bearing weather systems better moisture has been relatively improving over Belg rain benefiting and growing areas of the country, particularly central, eastern, north eastern, southern and south western parts of the country experienced light to heavy moisture. Heavy rainfall was also recorded in some places including Bishoftu 30.2mm, Gore 39.8mm, Ambo 31.7mm, amdework 34.0mm, Bati 32.0mm, Bui 31.6, 33, Debre work 30.9, Dellomena 30.7, Fitch 32.4, Hseana 42.0mm, Limugenet 44.7, Masha 34.6, 30mm, Nazarit 54.1, Senkata, 31.9, Tercha 48.9mm and Werabe 70.0mm. This condition might have positive impact to perform water requirements of early planted and found in germination period and planting for Belg season crops in areas where the rain onset was a bit delayed from its normal time of sowing as well as for perennial plants. In addition, the condition had been favorable toward improving the availability of pasture and drinking water over the pastorals and agro-pastoral communities. Moreover, the obtained heavy rainfall could be favorable, for farmers who are in moisture stress areas, to collect and store rainwater where that can be used in time of deficit.

#### 1. WEATHER ASSESSMENT

#### **1.1. Rainfall amount (1 – 10 March 2024)**

During the First dekad of March 2024, Parts of Guraghe and adjacent dividend areas were experienced 100-200mm of rainfall. Parts of Konta, Dawro, Jimma, Sawla, keffa, Jinka, Hosana and Bench-Maji, Basketo, Derashe and South and west Shewa also received 50-100 mm of rainfall. Parts of North and South Wollo, North Shewa, Jimma Illubabor, Parts of South Ommo, and pocket areas of Borena Pocket area East Hararghe exhibited 5-25mm of rainfall. However, Bale Arsi, Guji, Liben, gedeo and West Hararghe and parts of East Hararghe Parts of Norh Wollo Sekota and East Gohjam And Awi Zones were Dominated to 5-25 mm of Rainfal The rest parts of the country experienced little or no rainfall.

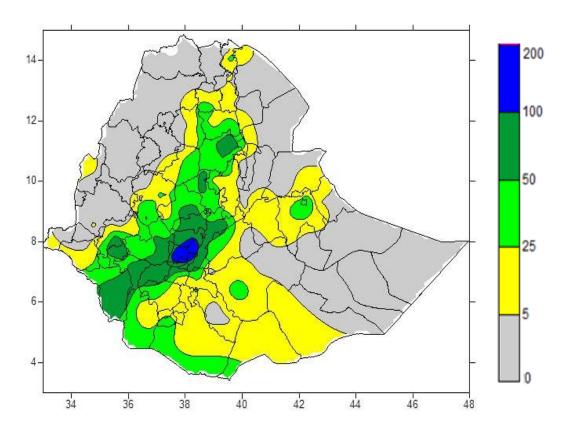


Fig 1. Rainfall distribution in mm (1 - 10) March 2024

#### 1.2. Rainfall Anomaly (1 – 10 march, 2024)

During the First dekad of March 2024, most parts of Central, Parts of Northern and Northeastern, Southern and Southwestern parts of the country exhibited normal to above normal rainfall condition. The rest parts of the country experienced Below Normal too Much Below Normal rain fall.

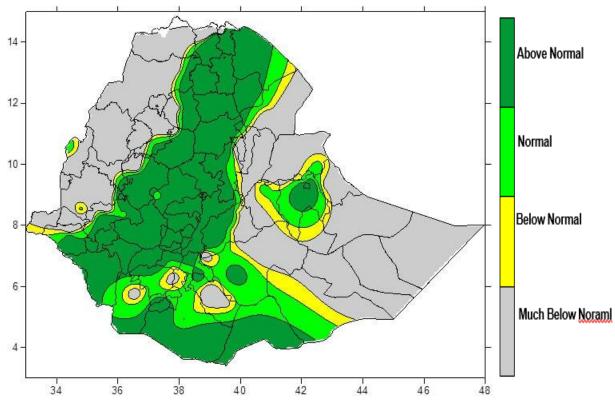


Fig.2 Percent of normal rainfall distribution (1 – 10 March, 2024)

#### **Explanatory notes for the Legend**

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

#### 1.3. MOISTURE CONDITION (1 – 10 March 2024)

As indicated on the moisture status map below during the frst dekad of March 2024 most of Belg preducind and rainfall benefiting areas exhibited Moist to Hyper Humid Moisture conditions. The rest parts of the countries exhibited moderately Dry too Very Dry.

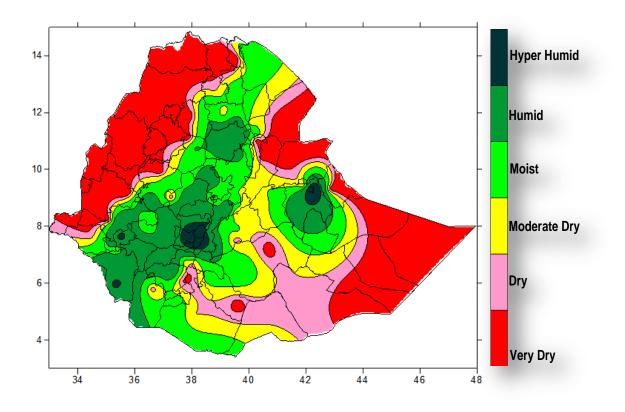


Fig. 3 moisture status for (1 - 10 March, 2024)

# 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

#### 2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the first dekad of March, due to the relative strengthening of rain bearing weather systems better moisture has been steadily improving particularly central, eastern, north eastern, southern and south western parts of the country experienced light to heavy moisture. In line with this the vegetation condition across the country indicated that in the western and north-eastern, central and some of southern parts exhibited average and above average vegetation condition (Fig.4. NDVI and Rangeland WRSI in %). This condition might have positive impact to perform water requirements of early and late planted Belg season crops. In addition, the condition had been favourable toward improving the availability of pasture and drinking water over the pastorals and agro-pastoral communities.

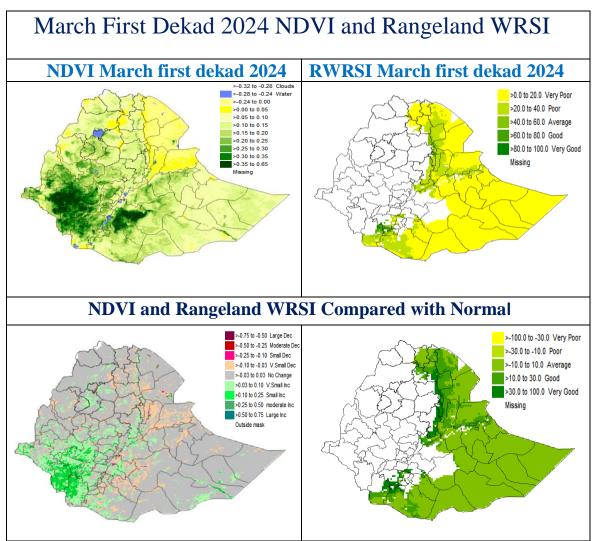


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - March 1-10, 2024

## 2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING SECOND DEKAD of MARCH 2024

In normal condition, the second dekad of March is characterized by a gradual improvement in moisture both in time and space over the north east, east, south and south east of the country and this enables farmers to perform land preparation as well as sowing of Belg season crops.

According to the weather forecast during the coming second dekad of March the moisture conditions are expected to enhance over Belg season crop growing and rain benefiting areas. In particular, the southern, north-eastern, central, eastern, south-western and reftvally and adjoin areas of the country are likely to get light to moderate amount of rainfall. Such moisture is expected to be favourable to perform sowing of various late sown Belg season crops as well as fulfilling the water need of early planted crops and perennial plants. Thus, farmers, particularly these delayed in planting are advised to make their own plan so as to use this opportunity. Moreover the expected moisture over southern and northeaster parts of the country ensuring the availability of pasture and drinking water for pastoral and agro pastoral communities. In addition, the forecast also indicates that some places across the country are expected to experience heavy rainfall. The expected improvement in moisture may also give good opportunity for collecting and storing of excessive rain water particularly for moisture stress areas and this may provide them a good chance to utilize it at a time of consecutive dry days. On the other hand, the expected daily maximum temperature above 35°C in low land parts of the country coupled with the lack of moisture in the sunny and hot weather enhance evapo-transpiration had a negative impact on the general agricultural activity as well as the provision of animal feed and drinking water. Thus, farmers and the concerned body's proper attention should be given proper moisture conservation and water harvesting.

#### 3. **DEFNITION OF TERMS**

ABOVE NORMAL RAINFALL: - Rainfall in excess of 125% of the long termmean

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 cover s 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.

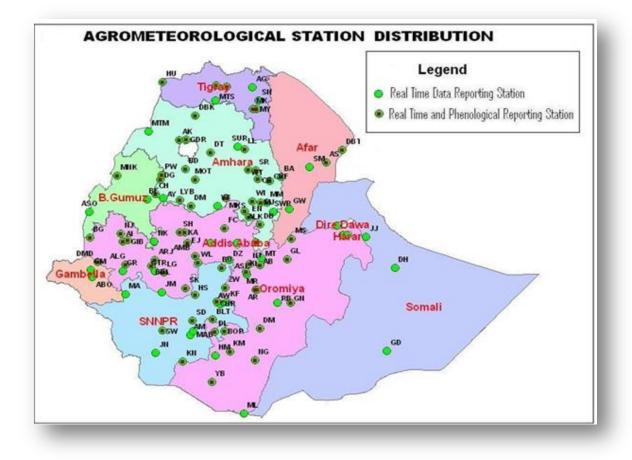
**DEKAD:** - First or second ten days or the remaining days of a month.

**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 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	WegelTena	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		
D. Markos	DM	Hossaina	HS	M/Selam	MSL		