# ETHIOPIA METEOROLOGY INSTITUTE Agrometeorological Bulletin

## TEN DAY AGROMETEOROLOGICAL BULLETIN

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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.

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#### **SUMMARY**

During the third dekad of March 2024, according to the data collected from various agro meteorological stations, good moisture was observed inmost Belg rain receiving areas of the country. In line with this, the received moisture combination with the moisture obtained in the previous dekads had positive impact to perform land preparation, planting of Belg season crops and crop that found in different growth stages. The observed moisture was also positive to sustain for the provision of pasture and drinking water as well. Occasional received Heavy rainfall was also recorded greater than 30mm in 24 hours in most part of the country. This situation has significant contribution to collect and store rainwater, especially for moisture stress areas. However the observed heavy fall might have created flood and river flow which has negative impact on animals, people and property, as well as on the crops that were sown earlier and at different stages of development.

During the first dekad of April 2024 the analysed agro meteorological information indicated that the moisture condition had shown relative strength across Belg season rain benefiting areas. In line with this, north- eastern, central, southern, south-western, western and south-western parts of the country experienced rainfall in the range of 1 moderate to heavy in amount. This situation had positive role for early sown of Belg crops which found in different growing stages as well as satisfy the water need of perianal plants and for availability of pastors and drinking water across the pastoral and agro-pastoral areas. In addition, the received moisture during the dekad under review might have positive impact for land preparation for areas which supposed to plant long cycle crops earlier. In like manner, the observed moisture in the southern low land parts of the country could be crucially important toward the availability of pasture and drinking water for the pastoralist and agro pastoralist community. 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 April 2024)**

During the first dekad of April 2024, some parts of Bench Maj, Keffa, Basketo, South Ommo Borena, Guji, Liben, Alaba, and pocket areas of Jimma zone were dominated above 100-200 mm of rainfall. In addition to this Amaro, Gedeo, Bale, Afder, Sidama, Wolayta, Dawuro, Jimma, Guraghe, Illubabor, South West Shewa, West Hararghe, pocket areas of East Gojam, Some parts of Bench Maj, Keffa, Basketo, Derashe, konso, Burji, Gamogofa, Borena, Guji, Liben, Alaba, and Slti, Zones were received 50-100mm of rainfall. On the other hand most parts of Afar Zone, 1, 3, 4 and 5, most parts North and South Wollo, East Gojam, South Gonder, Oromia Special Zone, East and South Tigray, Arsi, East Shewa, East Hararghe, West and East Shewa, West Wollega, Illubabor, Fik and Gode, Degahabour, Sheka, gambela Zone 2 and 3, and Godere zones were exhibited 25-50 mm of rainfall. The rest parts of the country Except North western and western half parts of the country were received 5-25 mm of Rainfall.

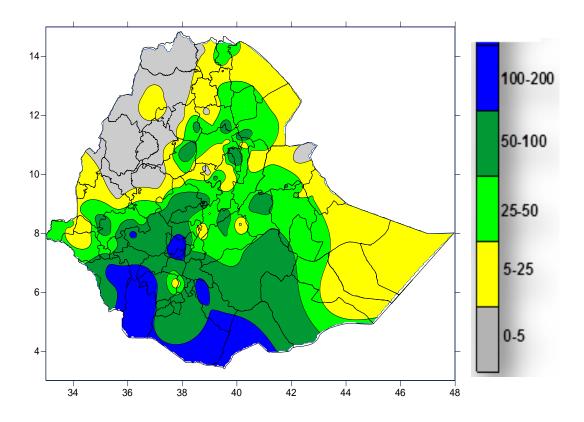


Fig 1. Rainfall distribution in mm (1-10) April 2024

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

During the first dekade of march 2023, North and South Gonder, Waghimera, North and South Wello, Oromi Zone, Bahir Dar, West and East Gojjam, North, West and Sout west Shewa, West and East Wellega, Tango,pocket areas of Assosa, Gambella Zone1,2&3,Godere, Keffa, Illibaur, Jimma, Guragi, Siliti, Alaba, Hadiya, Wolita, pocket areas of Arsi and West Hararghe, Afar Zone 1&5 Zones was experienced Normal to Above Normal Rain fall conditio

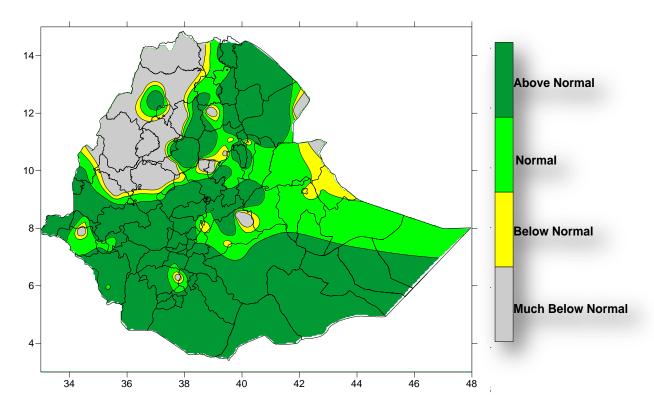


Fig.2 Percent of normal rainfall distribution (1 - 10 April, 2024)

#### **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 April 2024)

As indicated on the moisture status map below during first dekad of March 2024 most parts of Belg growing and rain benefiting areas of the country exhibited Moist to Hyper Moist moisture condition. The rest parts of the countries exhibited moderately Dry too Very Dry.

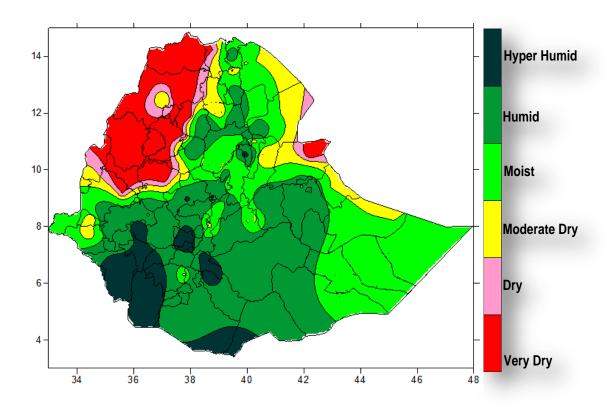


Fig. 3 moisture status for (1 - 10 April, 2024)

# 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

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

During the second dekad of April, due to the relative strengthening of rain bearing weather systems better moisture has been experienced over Belg producing and rain benefiting areas of the country, according to this increment the vegetation condition across the country exhibited good vegetation condition (Fig.4. NDVI and Rangeland WRSI in %) This condition might have positive impact to perform land preparation and planting for Meher long cycle crops as well as for perennial plants, early sowed crops and availability of pastors and drinking water over pastoral and agro-pastoral areas.

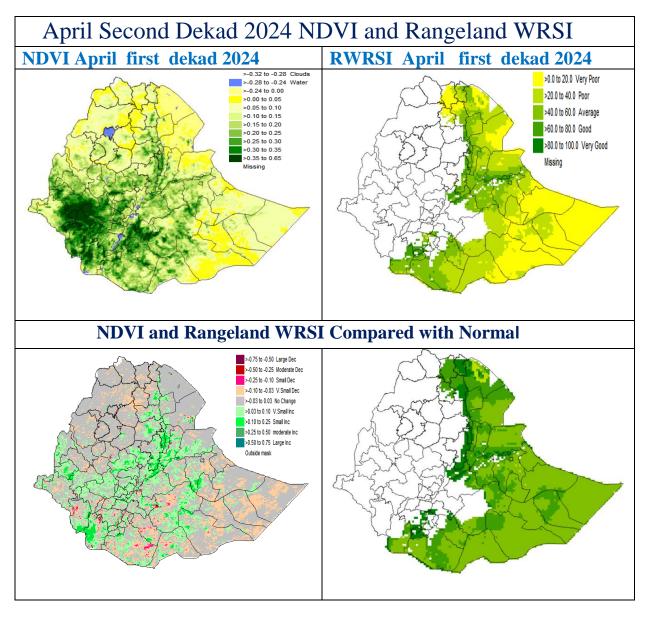


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - April 1-10, 2024

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

In the coming second dekad of April 2024, the meteorological forecast information indicates that the seasonal rainfall activity is expected to continue over Belg growing and rainfall benefiting area of the country. 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. Therefore, farmers and concerned bodies are advice to conserve available water efficiently and wisely use of moisture that will expect. However, the expected heavy fall on some places across the country would have cause flash flood and water logging on crops field in low lying areas. Thus, proper attention should be undertaken to minimize the risk in areas where there is no proper drainage system and low-lying areas making channel in order to reduce the effect of excess water. On the contrary the excess moisture might have positive impact on normally water deficit areas and water harvesting where that can be used in time of deficit.

#### 3. <u>DEFNITION OF TERMS</u>

**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.

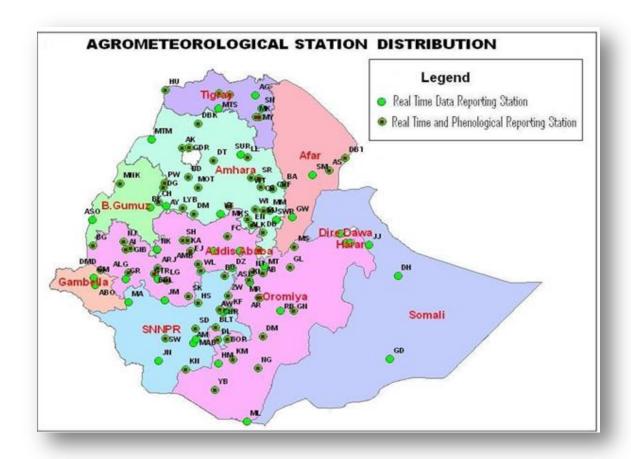
**DEKAD:** - First or second ten days or the remaining days of a month.

**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		