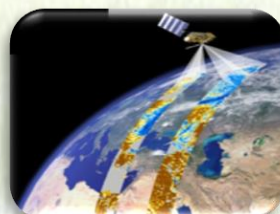


ETHIOPIA METEOROLOGY INSTITUTE

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 Institute 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 September 2024, the western and central parts of the country had better moisture conditions observed. Thus situations are to improving soil moisture, long-term crops such as sorghum and maize, which were already sown at different stages of growth and fruiting, medium and short-term crops that are bearing fruit and Maturity, perennial plants, fruits and garden vegetables, were of great importance in terms of improving their water needs. Also, during this period, the moisture gradually decreased in the east and northeast areas in terms of amount and distribution, but the east and neighbouring areas of afar received different amounts of moisture, which enabled the pastoral and semi-pastoral areas to have better pasture (grazing grass) and drinking water supply. Analyzed agricultural meteorological data indicate that the moisture obtained in the areas that the second rainy season in Bega had a positive impact for the agricultural activity. In addition, the moisture obtained was beneficial in terms of improving the supply of pasture and drinking water for pastoral and agro-pastoral areas. On the other hand, heavy fall ranging from 30.0 –63.0 mm in one rainy day observed over some areas of the country. .

The received moisture during the first dekad of October 2024 over most part of South, North West, West, Central, North East and East regions of the country might improve the availability and accessibility of soil moisture to crops and that in turn might favors the sustainability of long-term crop growth such as sorghum and maize and fulfilling the water need of medium and short term crops which are at flowering stage and perennial plants and vegetables were also benefited. Furthermore, the received moisture across the Bega season rain benefiting agro pastoral areas particularly the southern Oromia zone, could be good to conduct land preparation and to sow Bega seasons planting seeds. It has also contributed positively to the improvement of availability of pasture and drinking water over the pastoralists and agro-pastoralist areas.

1. WEATHER ASSESSMENT

1.1. Rainfall amount (1 – 10 October 2024)

During the first dekad of October 2024, most parts of Metekel, Illubabor, Jimma, Keffa, Sheka, Basketo, Bench Maji, East and West Hararghe, some parts of North Gonder and Pocket areas of Assossa zones were received greater than 100 mm rainfall. Most parts of Bale, Arsi Gambella all zones, South Omo, Godere, Benchi Maji, Keffa, Dawuro, Sidama, Gedeo, Hadiya, Alaba, Guraghe, Silte, Jimma, East and West Wollega, Assossa, Kemashe, Bahirdar, Awi, North Gonder, West Shewa, Oromia Special Zone, Afar Zone 1, 3, 5 and 6 Shinle, Jigjiga, Degahabure, Fik, Gode, Afder zones were received 50-100 mm of rainfall. Some parts of the North Gonder, West Tigray, East and West Gojam, Most Shewa zones, Arsi and Bale, Konso, Liben, Guji, Borena, Derashe, North and South Wollo zones were received 25-50 mm of rainfall. On the other hand Central and West Tigray, Some parts of South Gonder, Waghimira, North and South Wollo, Afar, zone 2, Amaro and Borena zones were received 5-25 mm of rainfall. However, the rest parts of the country especially South-eastern and North-eastern parts of the country were received less than 5 mm of rainfall.

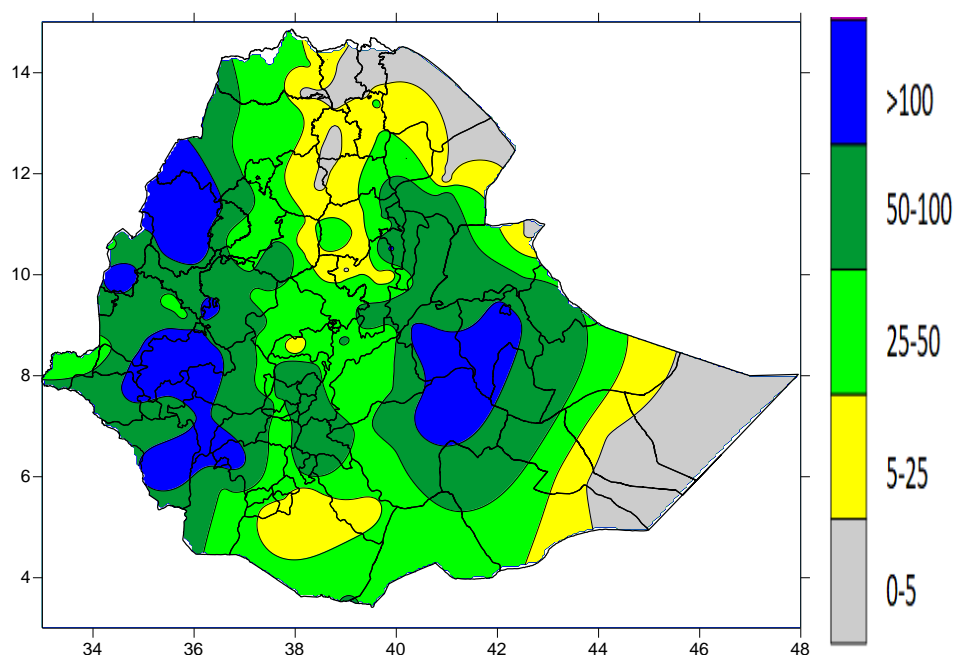


Fig.2 Total Rainfall Distribution in mm (1 – 10 October 2024)

1.2. Rainfall Anomaly (1 – 10 October 2024)

During the first dekad of October 2024, most parts of country except some pocket areas of South-eastern and Northern parts of the country were dominantly received Normal to above normal rainfall condition.

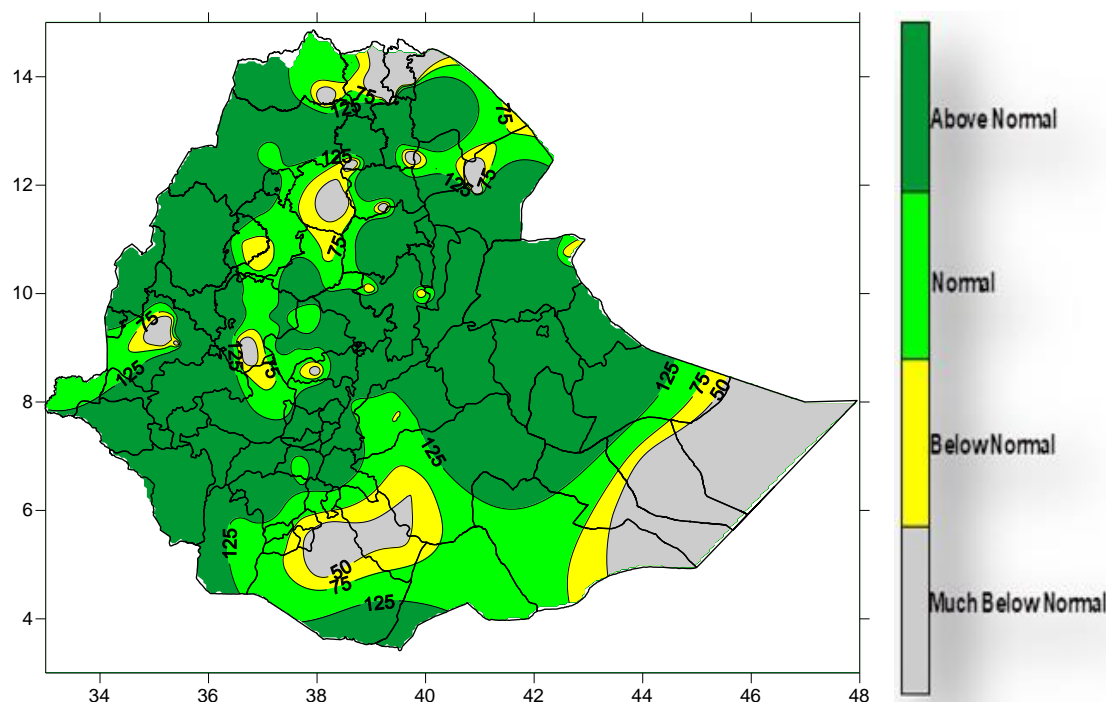


Fig.2 Percent of Normal Rainfall Distribution (1 – 10 October 2024)

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 October 2024)

The received moisture during the first dekad of October 2024 over most part of South, North West, West, Central, North East and East regions of the country might improve the availability and accessibility of soil moisture to crops and that in turn might favors the sustainability of long-term crop growth such as sorghum and maize and fulfilling the water need of medium and short term crops which are at flowering stage and perennial plants and vegetables were also benefited. Furthermore, the received moisture across the Bega season rain benefiting agro pastoral areas particularly the southern Oromia zone, could be good to conduct land preparation and to sow Bega seasons planting seeds. It has also contributed positively to the improvement of availability of pasture and drinking water over the pastoralists and agro-pastoralist areas.

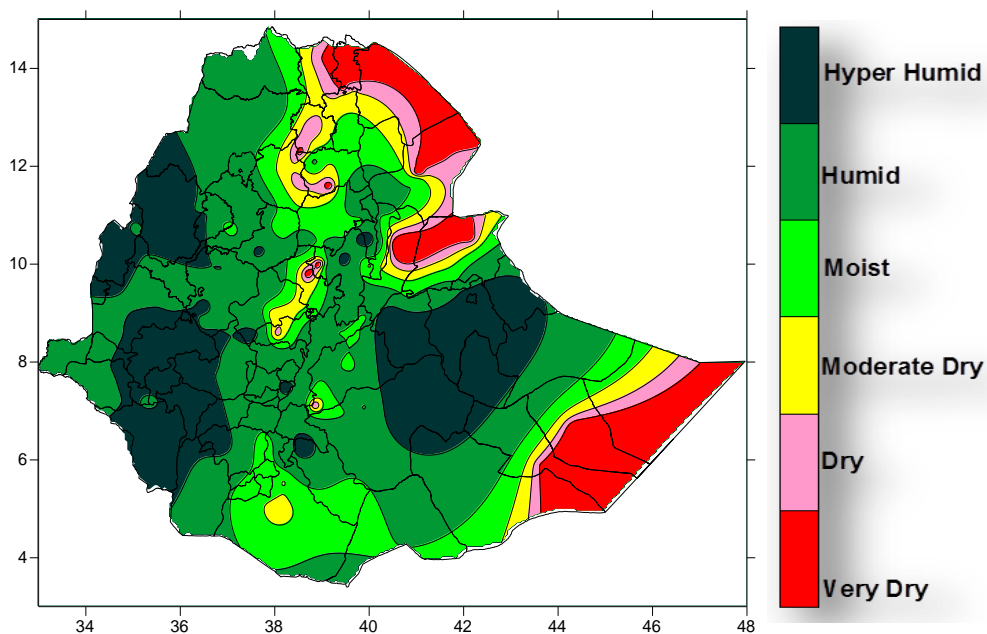


Fig. 3 Moisture status for (1 – 10 October 2024)

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the first dekad of October 2024, the moisture has been better performed over Meher crop growing and Kiremt rain benefiting areas, particularly the western half and central parts of the country due to the enhancing moisture good vegetation coverage NDVI observed in Fig.4. In addition to the vegetation greenness, the rangeland water requirerment (RWRSI in %) for livestock is also improved and enhanced over the Eastern and Northeastern pastoral and agro pastoral areas illustrated in Figure 4. This condition might

have a positive implication for harvesting water and pasture availability for pastoral and agro pastoral areas.

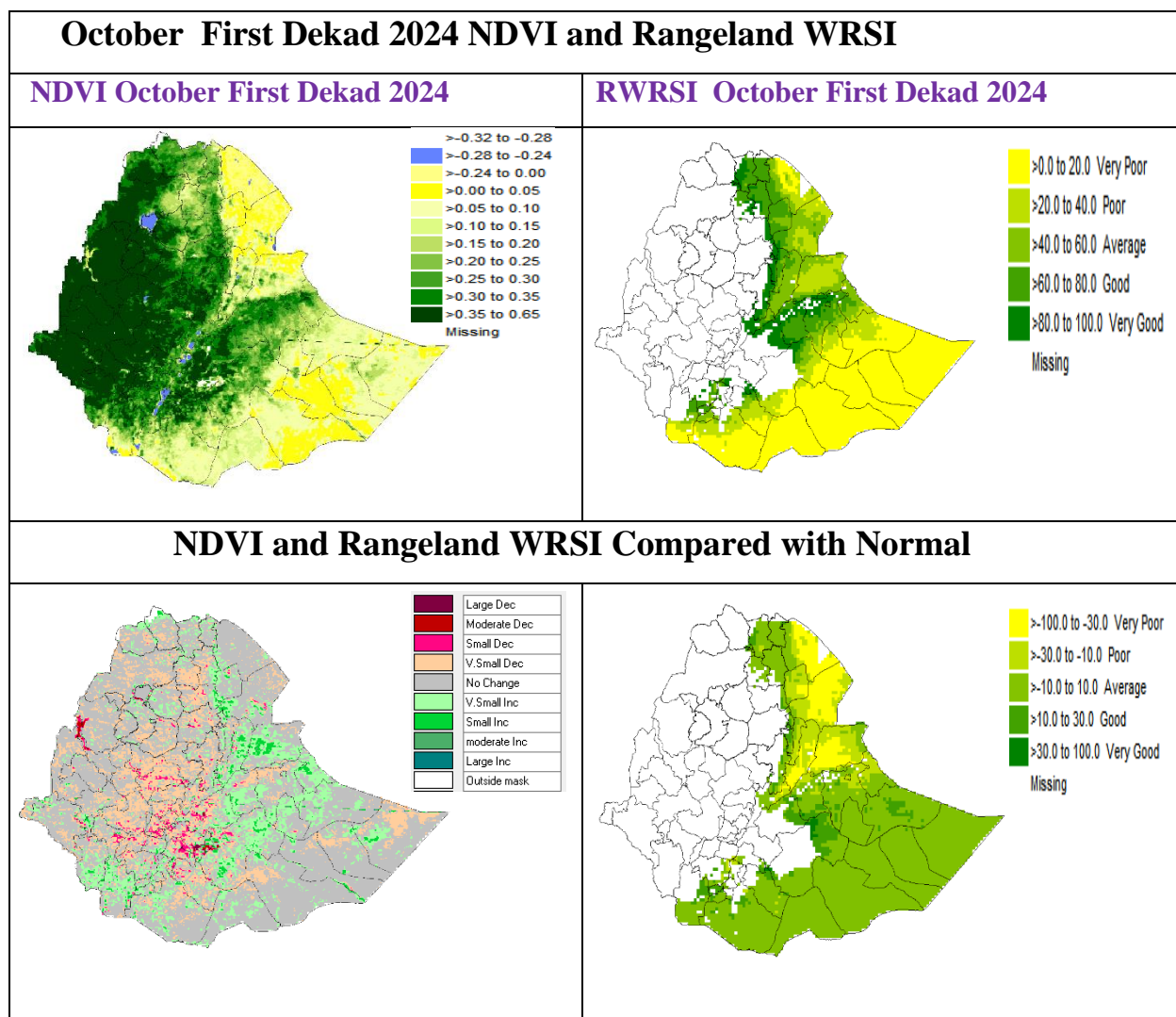


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - October 1-10, 2024

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING SECOND DEKAD OF OCTOBER 2024

In the coming second dekad of October, the moisture condition is likely to have a relative strength over western and southern parts of the country. Therefore, the expected enhanced moisture will have a positive contribution to satisfy the daily water need of where not yet fully matured existing Meher crops which are at different phenological stages. Besides, it would have significant contribution for the production of pulse crops (chickpea) which planted at the end of the season with residual moisture and perennial plants as well as to improve the availability of pasture and drinking water particularly over the southern and south western portion of the country. In addition to this the expected moisture conditions to the south and southeast where Bega is the second rainy season will create favourable conditions for land preparation and sowing crops over the highland parts of Borena and Guji and insure the availability of pasture and drinking water. Moreover the enhanced moisture will have a good opportunity to collect and store rainwater. On the other hand the expected unseasonal rain over some parts of Arsi, East Shewa, West Shewa, West and East Hararge, and North and South Wollo would have negative impact on harvest and post-harvest activities especially matured and ready to harvesting crops such as sesame, Teff and wheat. Thus, harvest and post-harvest activities should be undertaken on time in order to avoid unnecessary harvest and post-harvest loses.

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.

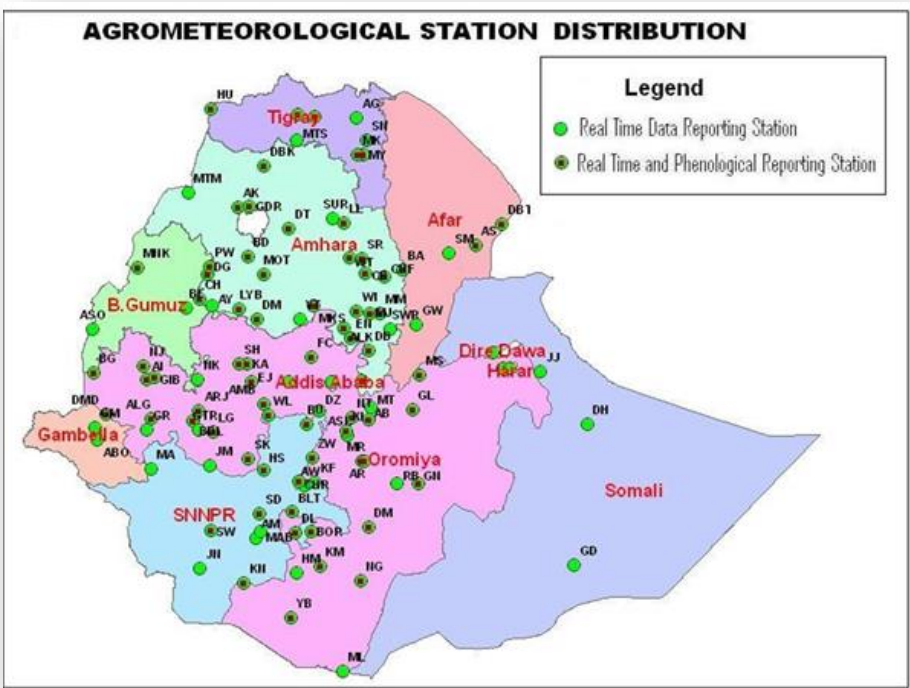
DEKAD: - First or second ten days or the remaining days of a month.

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 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		