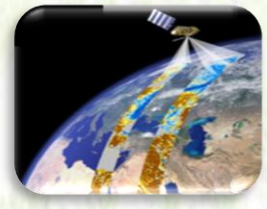


ETHIOPIAN METEOROLOGY INSTITUTION

Agrometeorological Bulletin

TEN DAY AGROMETEOROLOGICAL BULLETIN

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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.

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SUMMARY

During the third dekad of October 2023, the analyzed agro meteorological information's indicated that the moisture condition was enhanced over the southern and south-eastern Bega rain benefiting areas. The received moisture during the dekad could play very crucial role to perform different agricultural activities like fulfilling the water need of various Meher crops and perennial plants. Additionally, the condition had positive impact for improving the availability of pasture and drinking water and significantly important to regenerate natural and artificial ponds over both the pastoral and agro pastoral community. On the other hand the observed heavy fall over southern and south-western parts of the country had a good opportunity to collect rain water harvesting. On the other hand the observed heavy fall over some areas which are characterized as moisture excess areas, particularly the southern, western and south western parts of the country might experience water logging, runoff, soil erosion and landslide due to continuous and heavy fall. Moreover the receiving moisture over some areas of central and northern parts negatively affected harvest and post-harvest activities of matured crops and the observed enhanced moisture might have positive implication for fulfilling the water need of various Meher crops, perennial plants.

During the first dekade of November 2023, the moisture condition was enhanced over the southern and south-eastern Bega rain benefiting. The observed moisture might have positive implication for fulfilling the water need of various Meher crops and perennial plants. Similarly, since Bega is the second rainy season for the southern and south-eastern parts of the country, the received good moisture during the dekad could play very crucial role to improving the availability of pasture and drinking water and significantly important to regenerate natural and artificial ponds over both the pastoral and agro pastoral community. On the other hand the observed heavy fall over southern and south-western parts of the country had a good opportunity to collect rain water harvesting. On the other hand the observed heavy fall over southern, south-eastern and eastern parts of the country might experience water logging, runoff, soil erosion and landslide due to continuous and heavy fall. Moreover the receiving unseasonal moisture over some areas negatively affected harvest and post-harvest activities of matured crops and the observed enhanced moisture might have positive implication for fulfilling the water need of various Meher crops, perennial plants.

1. WEATHER ASSESSMENT

1.1. Rainfall amount (01 – 10 December, 2023)

During the first Dekad of December 2023, Pocket area of south Omo experienced 50-100mm of rainfall. Most parts of South Omo, Mirab Omo and Gofa zone received 25-50mm of rainfall. Most parts of Sheka, Bench, Maji, Agnewak, Borena, Mirab Wollega including South Omo experienced 5-25mm of rainfall. The rest parts of the country experienced little or no rainfall.

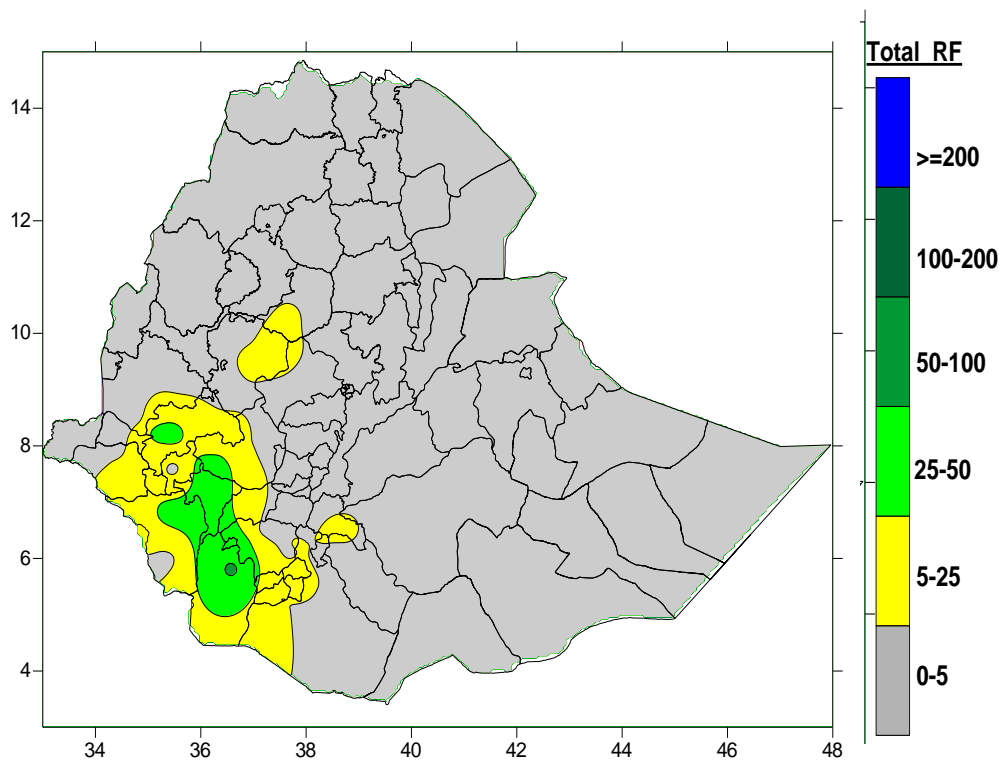


Figure 1. Rainfall distribution in mm (01- 10, December, 2023)

1.1. Rainfall Anomaly (01 – 10 December 2023)

During the month of December 2023, Debub Omo, Mirab Omo and Gofa and Most parts of Sheka, Bench, Maji, Agnewak, Borena, Mirab Wollega of the country exhibited Normal to below normal rainfall. The rest parts of the country exhibited Normal to Much Below Normal rain fall condition.

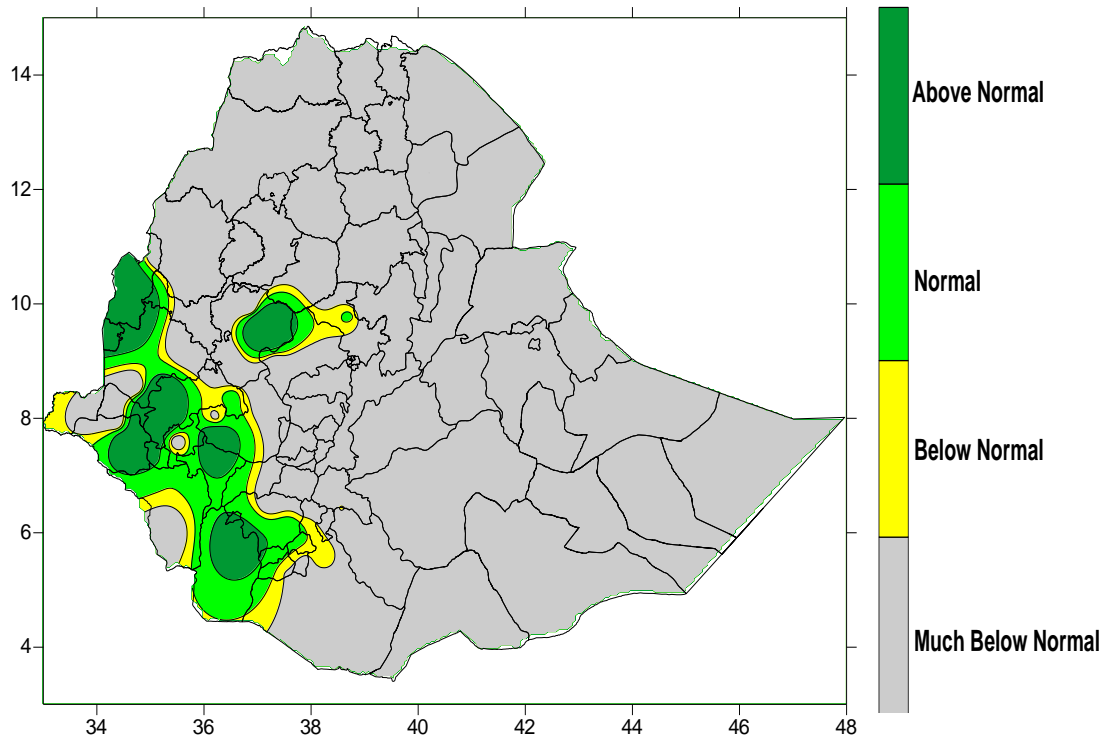


Figure 2: Percent of normal rainfall distribution (01 – 10 December 2023)

Explanatory notes for the Legend

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

1.1. Moisture Condition (01 – 10 December, 2023)

During the first dekad of December 2023, Debub Omo, Mirab Omo and Gofa and Most parts of Sheka, Bench, Maji, Agnewak, Borena, Mirab Wollega of the country exhibited moist to humid moisture conditions. The rest parts of the country experienced moderately dry to very dry moisture condition.

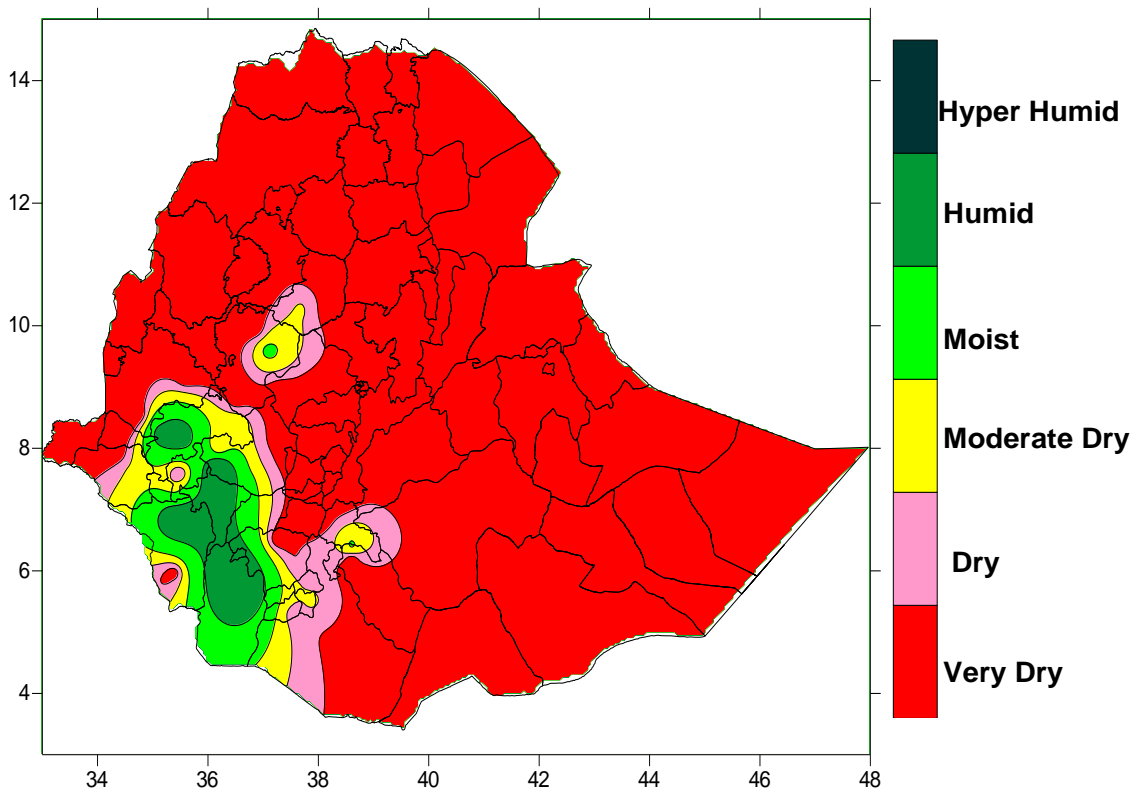


Figure.3. Moisture Status (01 – 11 December, 2023)

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During first dekad of December 2023, the moisture condition was enhanced over the southern and south-eastern Bega rain benefiting areas including south-western, central, eastern and western parts of the country.. Due to this the NDVI Fig.4 (the green plant coverage) and RLWRSI increased dekad to dekad in most of Bega rainfall benefiting areas. And due to the expanded green plant coverage and Rangeland indicated over southern and south-eastern pastoral and agro pastoral community might play crucial role toward improving the availability of pasture and drinking water and to regenerate natural and artificial ponds.

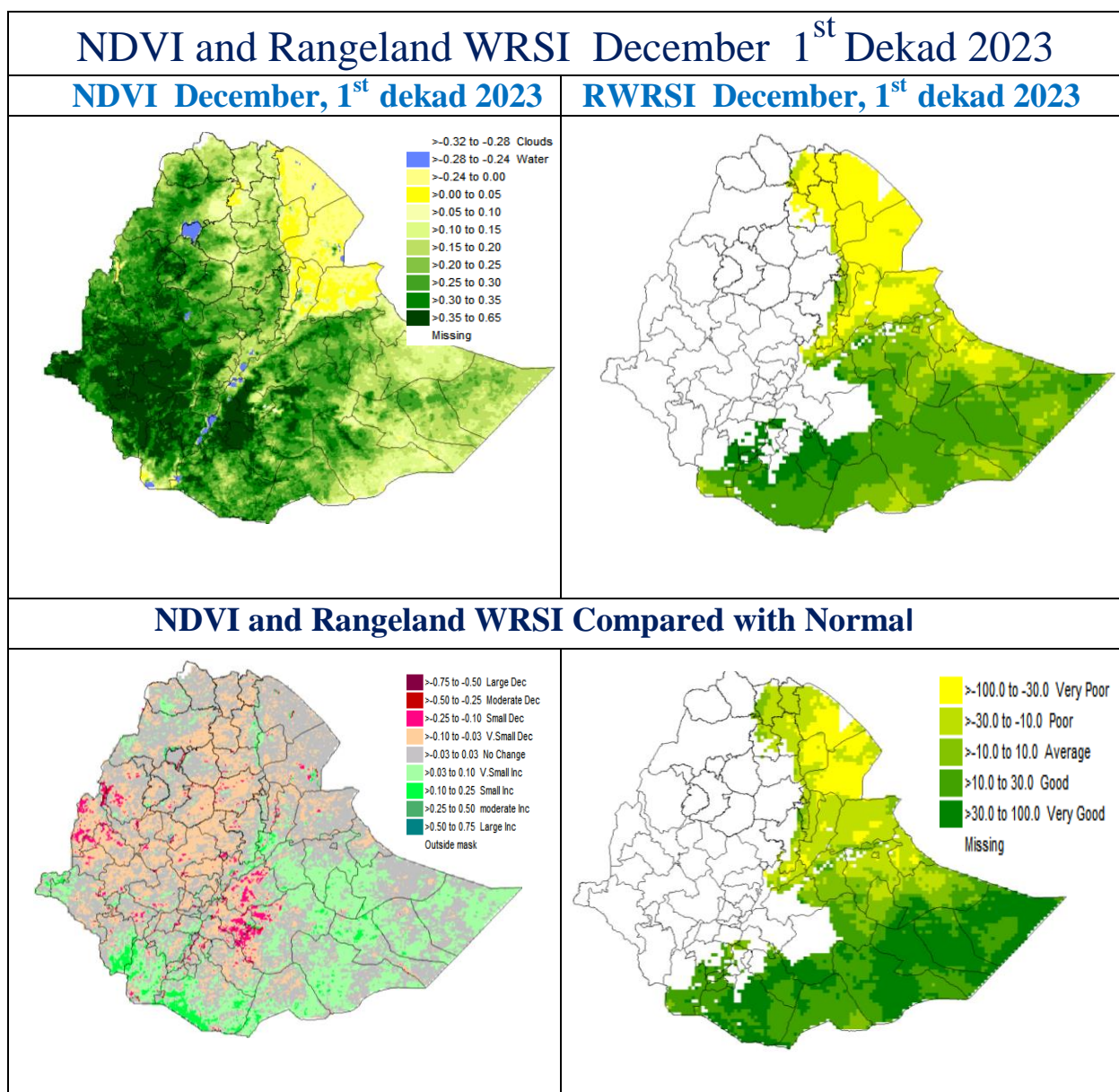


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal 01 – 10 December 2023

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING SECONDE DEKADE OF DECEMBER 2023

According to the weather forecast, in the coming second dekad of December 2023, during the beginning days of thh dekad Bega season dry moisture condition is expected to prevail across the Meher season producing parts of the country. The dry and sunny condition should be taken as good opportunity to perform harvest and post-harvest activities over the place where Meher season crops are fully matured. Moreover, the night and morning time cold condition over northern, eastern and southern frost prawn high land parts may have negative impact on fruit and other horticulture plants as well as crops which are Bega season crops sown using irrigation. Therefore, farmers need to be assisted by agricultural professional for effective management of cold conditions. Thus, farmers are strongly advised to use this opportunity to collect fully matured crops in the meanwhile. On the other hand, after the second half of the season slight and heavy rainfall is expected over southern and western parts of the country this may be favourable for Bega season crops and perennial plants as well as to ensure the availability of pasture and drinking water for the pastoral and agro pastoral community. In addition to this, the expected occasional unseasonal rain after the second half of the dekad to prevail over northern and north-western Meher producing areas of the country over seasonally dry sectors in areas where crops are ready to harvest of the country would have negative impact on harvest and post-harvest activities. Thus, harvest and post-harvest activities should be undertaken on time in order to avoid unnecessary harvest and post-harvest loses. Moreover, the expected unseasonable rainfall would favor the occurrence of crop pests and disease. Therefore, farmers are advised properly and regularly visit their farm fields for monitoring pest and diseases for proper precaution should be undertaken ahead of time to minimize loses. The rest part of the country will be subjected to be dry moisture condition.

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.

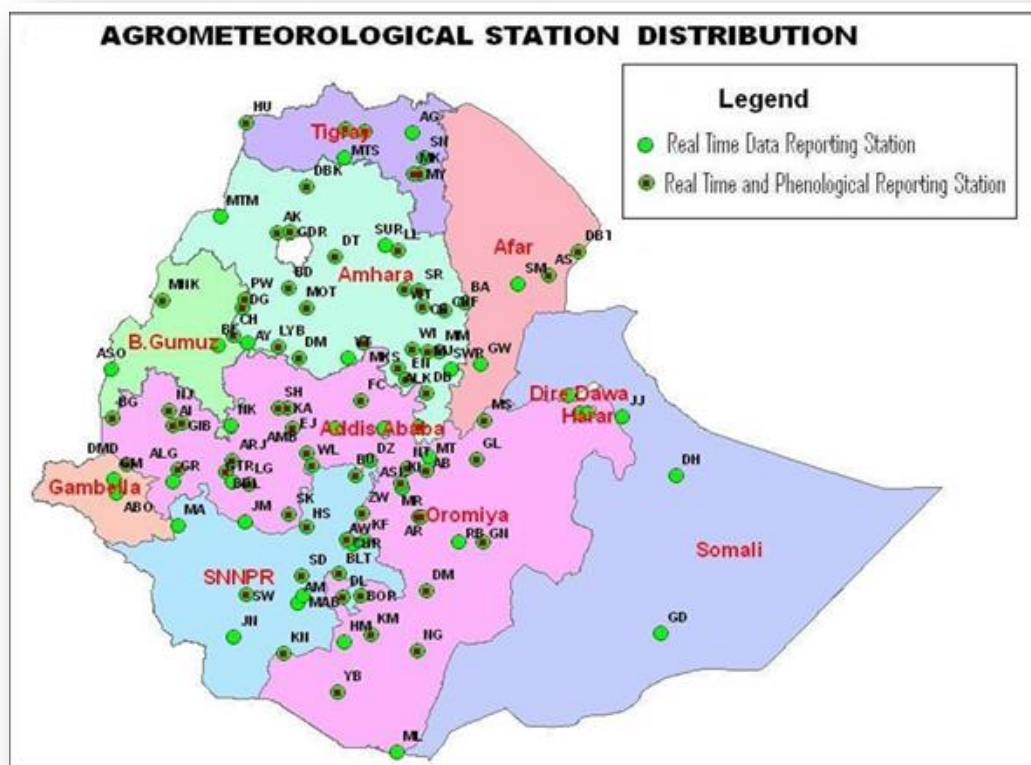
DEKAD: - First or second ten days or the remaining days of a month.

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	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	H/Mariam	HM	Metema	MTM		
D. Habour	DH	Harer	HR	Mieso	MS		
D. Markos	DM	Holleta	HL	Moyale	ML		
		Hossaina	HS	M/Selam	MSL		