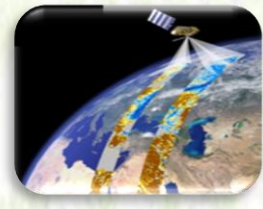


ETHIOPIAN METEOROLOGY INSTITUTION

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 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.

During the second dekade of November 2023, the moisture condition was enhanced over the southern and south-eastern Bega rain benefiting areas including central, eastern north-eastern, and western parts of the country. 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 rain during the dekad could play very crucial role to satisfy the water need of crops planted in the southern high lands and pulse and other short cycle crops. Moreover, 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. However the observed heavy fall over eastern, north-eastern and western parts of the country might have experience water logging, runoff, soil erosion and landslide over some flood prawn areas on the contrary the heavy fall had a good opportunity to collect rain water harvesting over both the pastoral and agro pastoral community. On the other hand, the cloud coverage had been decreasing the occurrences of frost over the high land parts of the country and dry moisture condition was prevailing over some areas of the north-eastern and central portion of the country. This situation was favourable for harvest and post-harvest activities of matured crops. However

the receiving unseasonal moisture over some areas negatively affected harvest and post-harvest activities of matured crops.

WEATHER ASSESSMENT

1.1. Rainfall amount (11 – 20 November, 2023)

During second Dekad of November 2023 Most parts of Afdar and Shebel zone, few parts of Borena and pocket area of Agnewak experienced $\geq 100\text{mm}$ of rainfall. Parts of east and west Gojam , Jimma Zone, weste and East Wollega, Borena, Guji, south Omo and Arsi and Baleand east and west Harerge received 50-100mm of rainfall. pocket areas of West Tigray, Waghemera, some parts South and North Wello, central parts and Jijiga received 5-25mm rain fall. The rest part of the country was received 0-5mm rain fall.

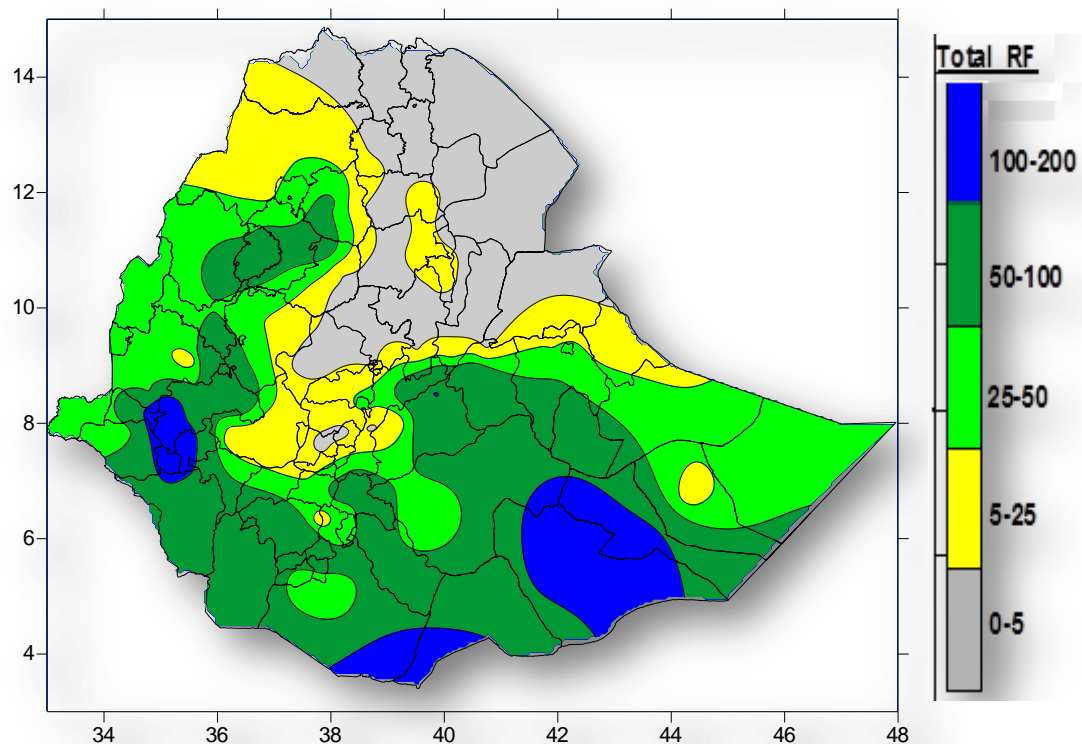


Figure 1. Rainfall distribution in mm (11- 20, November, 2023)

1.1. Rainfall Anomaly (11 – 20 November 2023)

During the month of October 2023, Southern and western half of the country including Arsi, Bale eastern high lands and parts of northern Ethiopia exhibited Normal to below normal rainfall. The other parts of the country exhibited Normal too Much Below Normal rain fall condition.

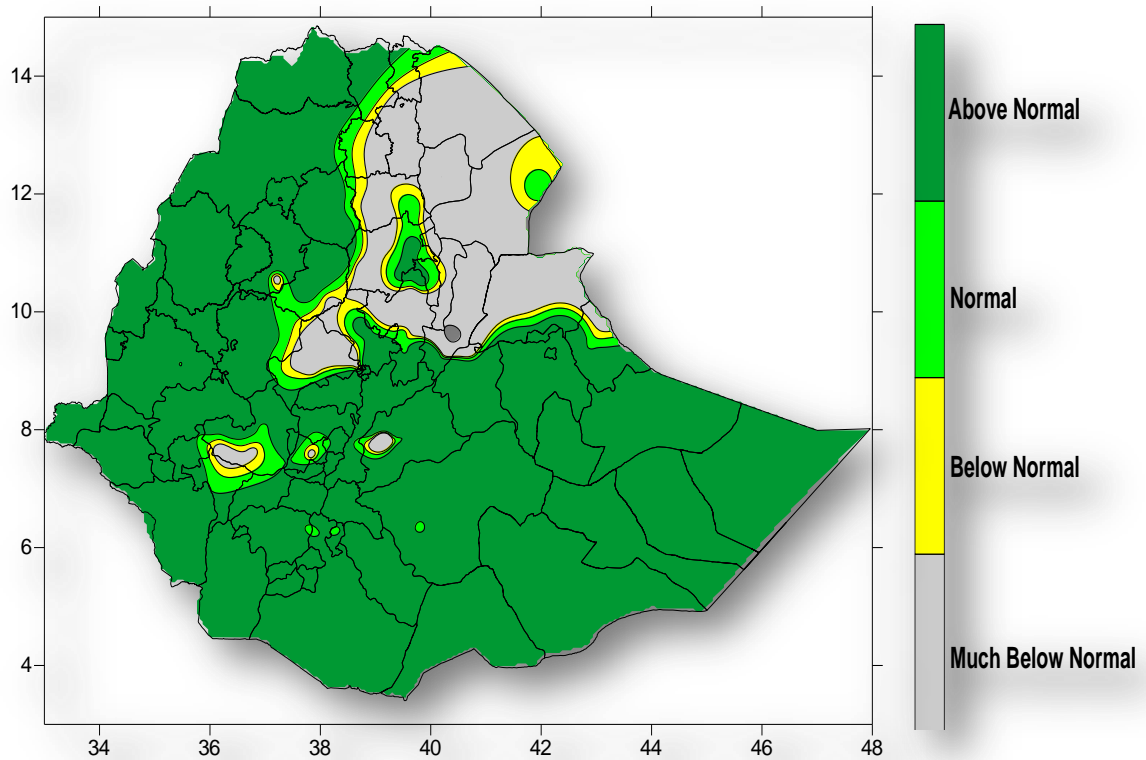


Figure 2: Percent of normal rainfall distribution (11 – 20 November 2023)

Explanatory notes for the Legend

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

1.1. Moisture Condition (11 – 20 November, 2023)

During the first dekad of October 2023, most parts of western and southern half of the country including eastern Oromia, Arsi, Bale and northern Somali exhibited moist to hyper humid moisture conditions. The rest parts of the country experienced moderately dry to very dry moisture condition.

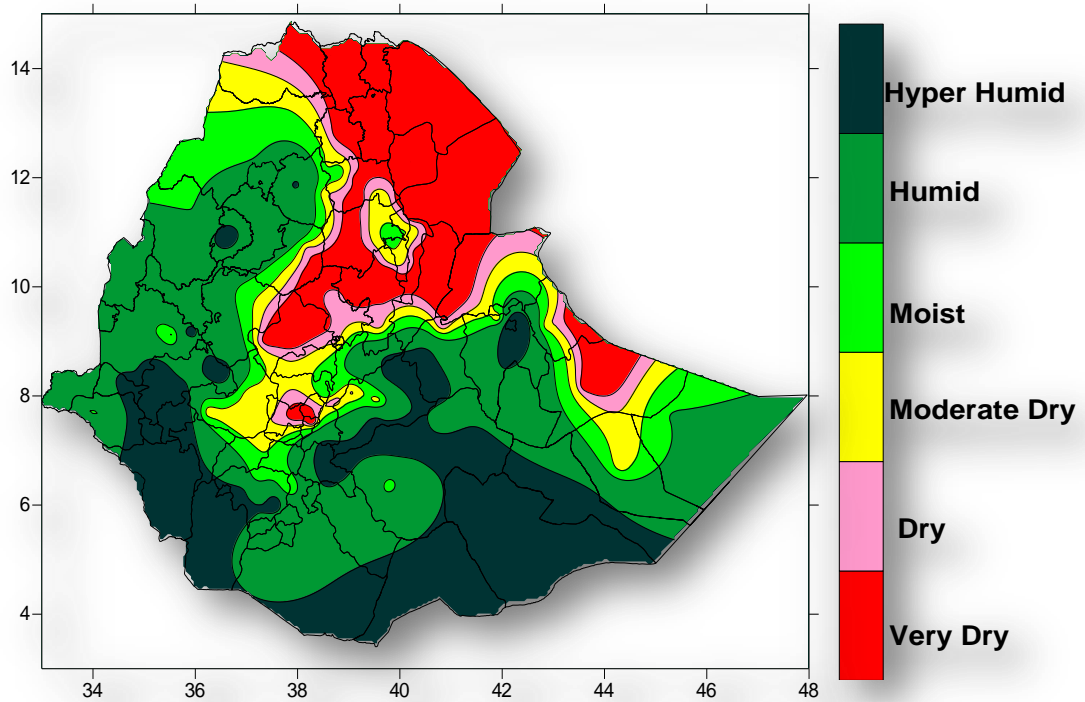


Figure.3. Moisture Status (01 – 11 November, 2023)

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the second dekad of November 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.

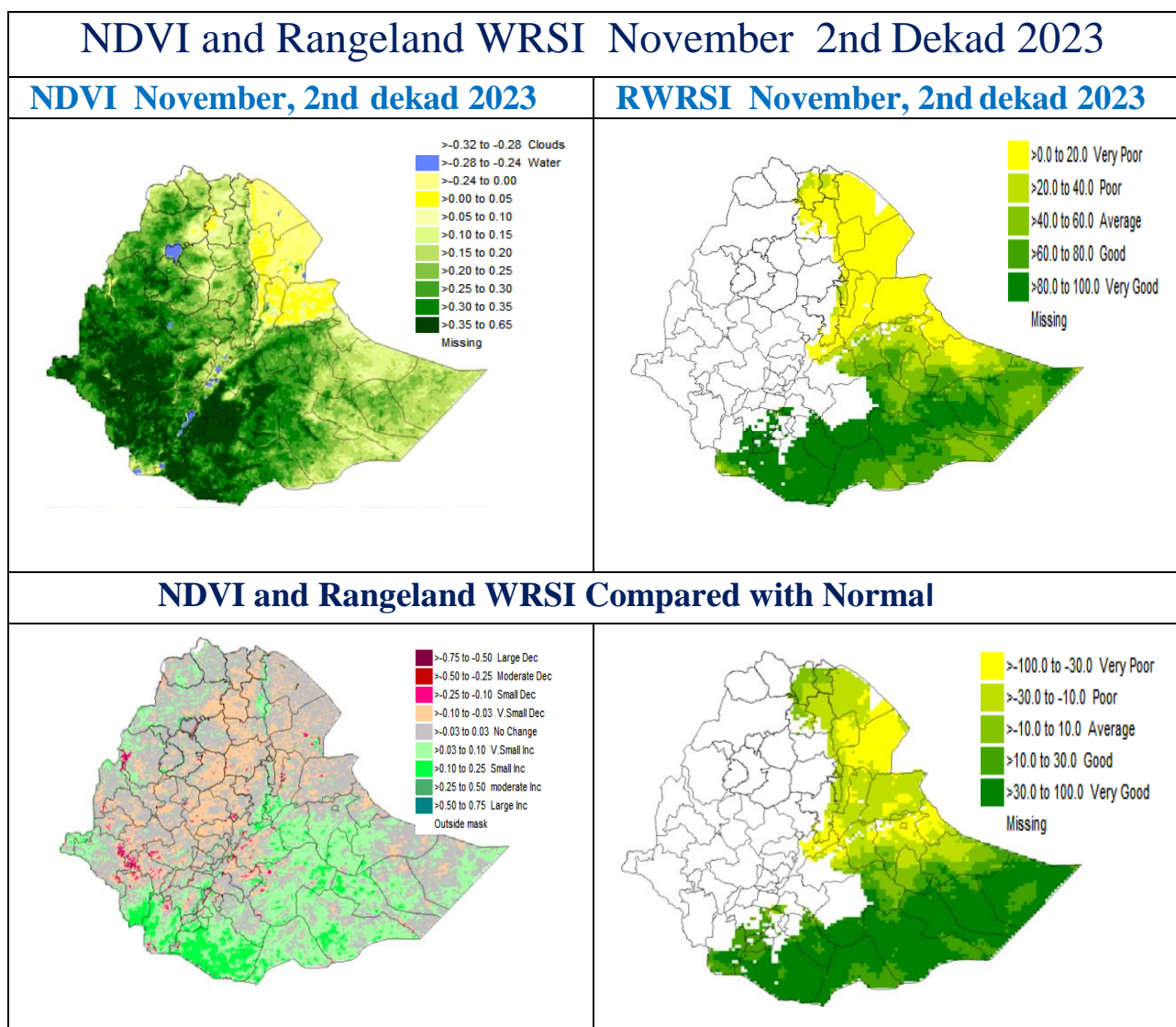


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal 01 – 11 November 2023

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING THIRD DEKADE OF NOVEMBER 2023

According to the weather forecast, in the coming third dekad of November 2023, the moisture condition is likely to have a relative strength over south and south-eastern parts of the country where Bega is second rainy season will create favourable conditions for the water needs of Bega crops over the highland parts and insure the availability of pasture and drinking water to improve animals feeds and fodder as well as regeneration of natural and artificial ponds. The enhanced moisture will have a good opportunity to collect and store rainwater. Moreover the expected enhanced moisture at the beginning of the dekad over south-western, western and eastern parts of the country will have positive contribution to satisfy the daily water need of lately planted Meher crops that need complete growth, pulse crops that planted at the end of the season over high lands using reserved moisture in the soil, perennial plants and to improve the availability of pasture and drinking water particularly over the southern portion of the country. However, the expected heavy fall over western, south-western and southern half of the country would have positive contribution crop which found in different growth stage perennial plants, improve the availability of pasture and drinking water over south and south-eastern pastoral and agro pastoral areas and which gives good opportunity to collect rain water harvesting. On the other hand, the expected heavy fall over some areas which are characterized as moisture excess areas might experience water logging, runoff and soil erosion due to heavy fall. Therefore, farmers need to be assisted by agricultural professional for effective management of control excess moisture conditions. In addition to this, the expected occasional unseasonal rain to prevail over central, eastern and north 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.

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.

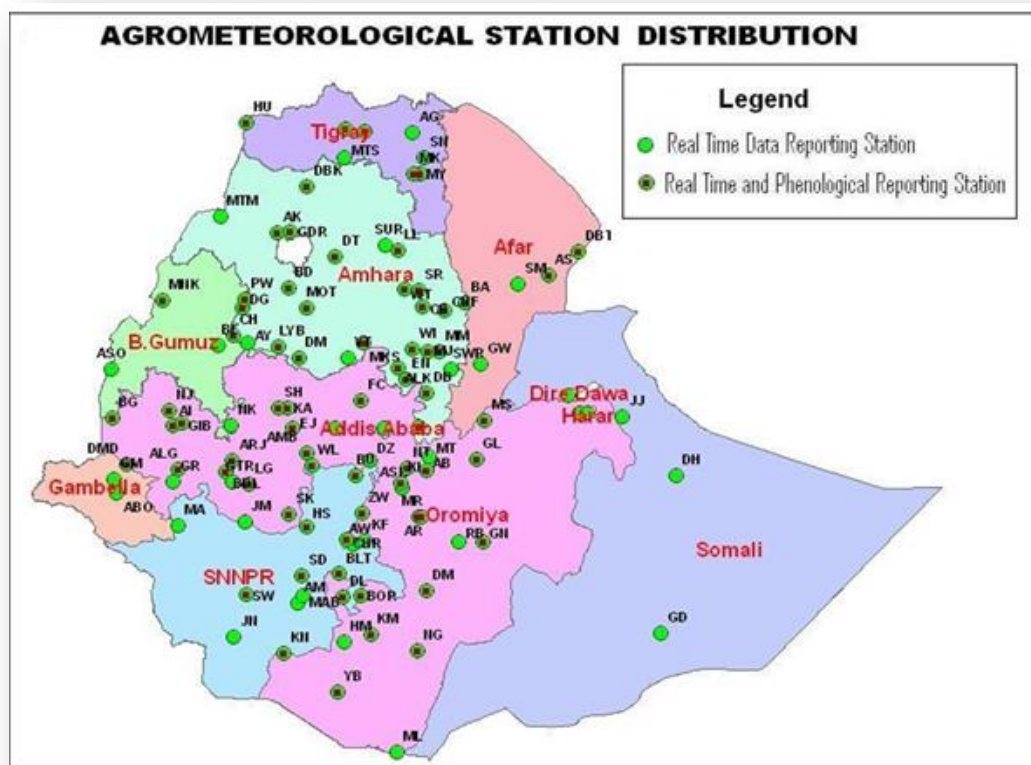
DEKAD: - First or second ten days or the remaining days of a month.

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		