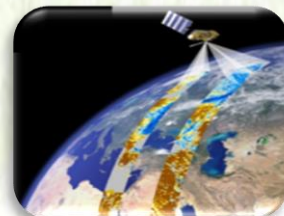


ETHIOPIA METEOROLOGY INSTITUTE

Agrometeorological Bulletin

TEN DAY AGROMETEOROLOGICAL BULLETIN

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TABLE OF CONIENTS

FORE WARD.....	2
SUMMARY	3
1. WEATHER ASSESSMENT.....	4
1.1. Rainfall amount (11 – 20 May 2023).....	4
1.2. Rainfall Anomaly (11 – 20 May, 2023).....	5
1.3. Moisture Condition (11 – 20 May 2023).....	6
2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON	
AGRICULTURE	7
2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE.....	7
2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING THIRD DEKAD of MARCH 2023.....	8
3. DEFNITION OF TERMS.....	9

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

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SUMMARY

During the first Dekade of April 2023 the analyzed agricultural meteorological data indicate that in most parts of belg growing areas of the country, had received better moisture conditions. They experienced light to heavy humidity condition for several days, particularly in south, south west, and south-east regions of the country. This situation will be crucial for continuous growth of Belg crops that have been sown earlier and in different stages of maturity. They also provided drinking water and grazing grass for Agro-pastoral areas and helped to satisfying the water needs of perennial crops, as well as helping to prepare the land for longterm crops and seed farming activities. On the other hand, some areas of Western, Central, South Western and South Eastern parts of the country received heavy rain fall amount, in line with Abomsa 60.0, Amba-Mariyam 39.0, Bui 63.8, Bore 30.7, Diredawa 30.1, Gelemso 51.5, Gewane 34.5, Konso 3 1.5, Masha 40.4 and 30.6, Woliso 36.9 mm rain fall was received . Due to these the heavy moisture condition had a negative side but contributed significantly to most of the agricultural activities.

During the second dekad of April 2023 the analyzed agro meteorological information indicated that the moisture condition had shown relatively day to day weakens across the country comparing with the previous dekad. However the belg benefiting areas experienced slight to moderate rainfall in amount and distribution. 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 in some areas could be favourable, for farmers who are in moisture stress areas, to collect and store rainwater where that can be used in time of deficit. On the other hand, daily extreme maximum temperature has shown a relative increase over western, south-western, northeast, southeast, southern margin areas recorded Temperatures above 35°C and some areas > 40°C. This, coupled with the lack of moisture in the sunny and hot weather, had a negative impact on the general agricultural activity as well as the provision of animal feed and drinking water for over most of the rang land.

1. WEATHER ASSESSMENT

1.1. Rainfall amount (11 – 20 May 2023)

During second dekad of March west Wellega received 100 -200 mm of rainfall. Parts of east Wellega, Yem, KT, Selti and Alaba have experienced, North and south Wollo, east Gojam, east Wellega, east and west Shewa, Sheka, Illubabur, Jimma, Keffa, Dawuro, Basketo, Gamogofa, Welayita, Hadiya, Selti, Gurage and Harer exhibited 50-100 mm of rainfall. East Gojam, south Gonder, south Wollo, Oromia especial zone, Bahir Dar, east and west Gojam, Afar zone 4, east and west Harergie exhibited 25-50mm of rainfall. Arsi, Bale, northern Somali Bale, south west Shewa, Addis Ababa zone, Illubabur, Gambela zone 2, Godere, Bench Maji, South Omo, Derashe, Burji, Konso, Amaro and Borena received 5-25mm of rainfall. The rest parts of the country exhibited 0-5 amount of rainfall

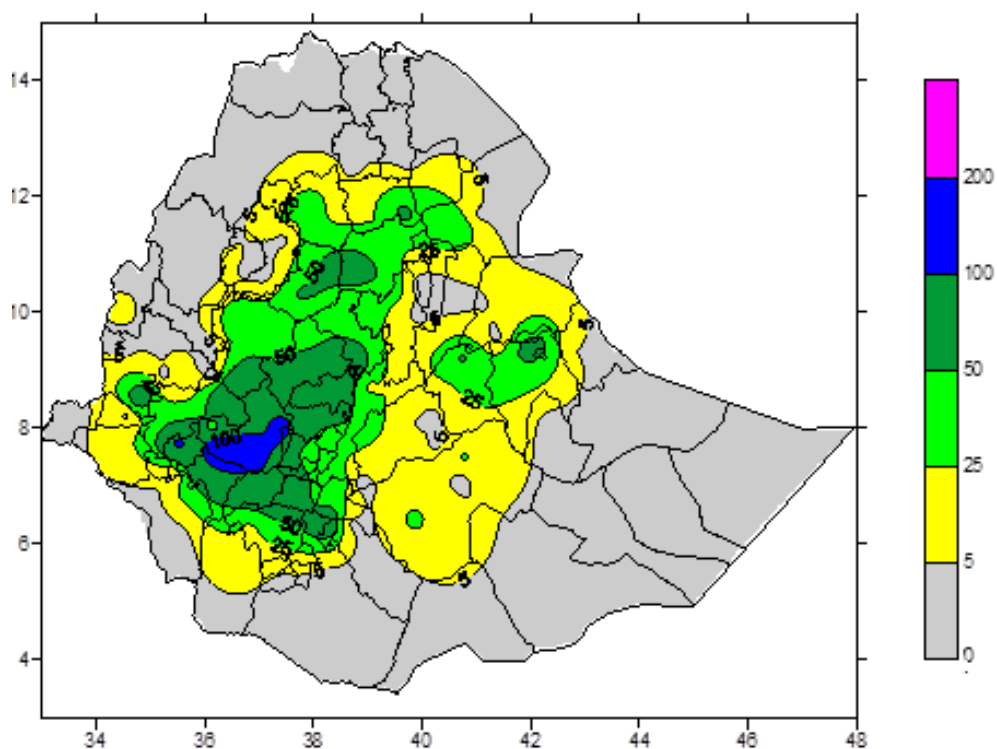


Fig 1. Rainfall distribution in mm (11 – 20) May 2023

1.2. Rainfall Anomaly (11 – 20 May, 2023)

During the second dekad of May 2023, Wag hemra, south and north Wello, parts of south Afar, east and west Harerege, Parts of Arsi, Sidama, northern Oromia especial zone, Kamashi, east Wellega, West, North, south west and east Shewa, Gurage, Jimma, Yem, KT, Alaba, Hadiya, Welayita, Sidama, Sheka, Keffa, Illubabur, segen people and Jimma, few parts of Gambela exhibited normal to above normal rainfall. The rest part of the country was received below normal to much below normal rain fall.

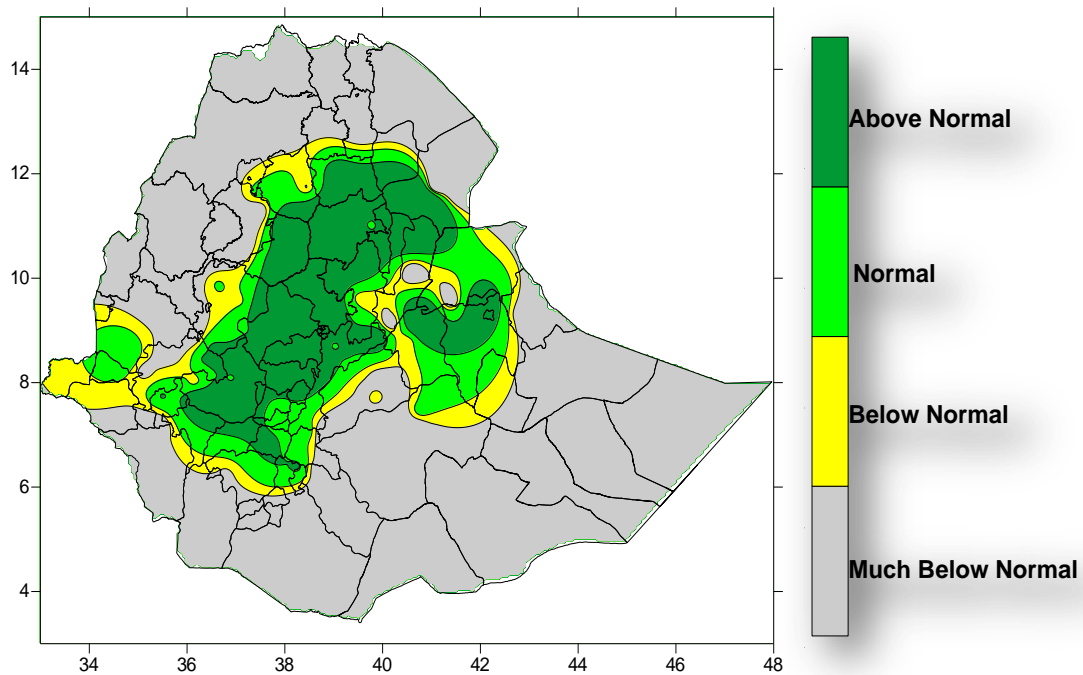


Fig.2 Percent of normal rainfall distribution (11 – 20 May, 2023)

Explanatory notes for the Legend

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

1.3. Moisture Condition (11 – 20 May 2023)

As indicated on the moisture status map below during third dekad of March 2023 most parts of Belg growing and rain benifiting areas of the country exhibited Moist to Hyper Moist moisture condition. The rest parts of the countries exhibited moderately Dry too Very Dry.

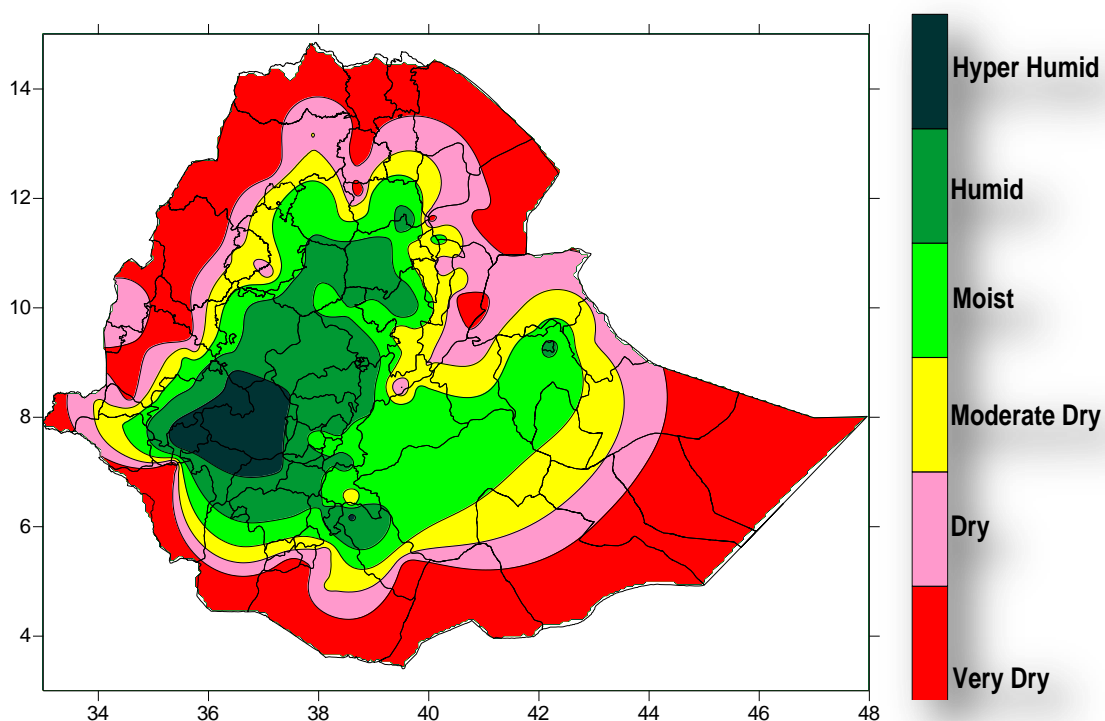


Fig. 3 moisture status for (11 – 20 May, 2023)

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.

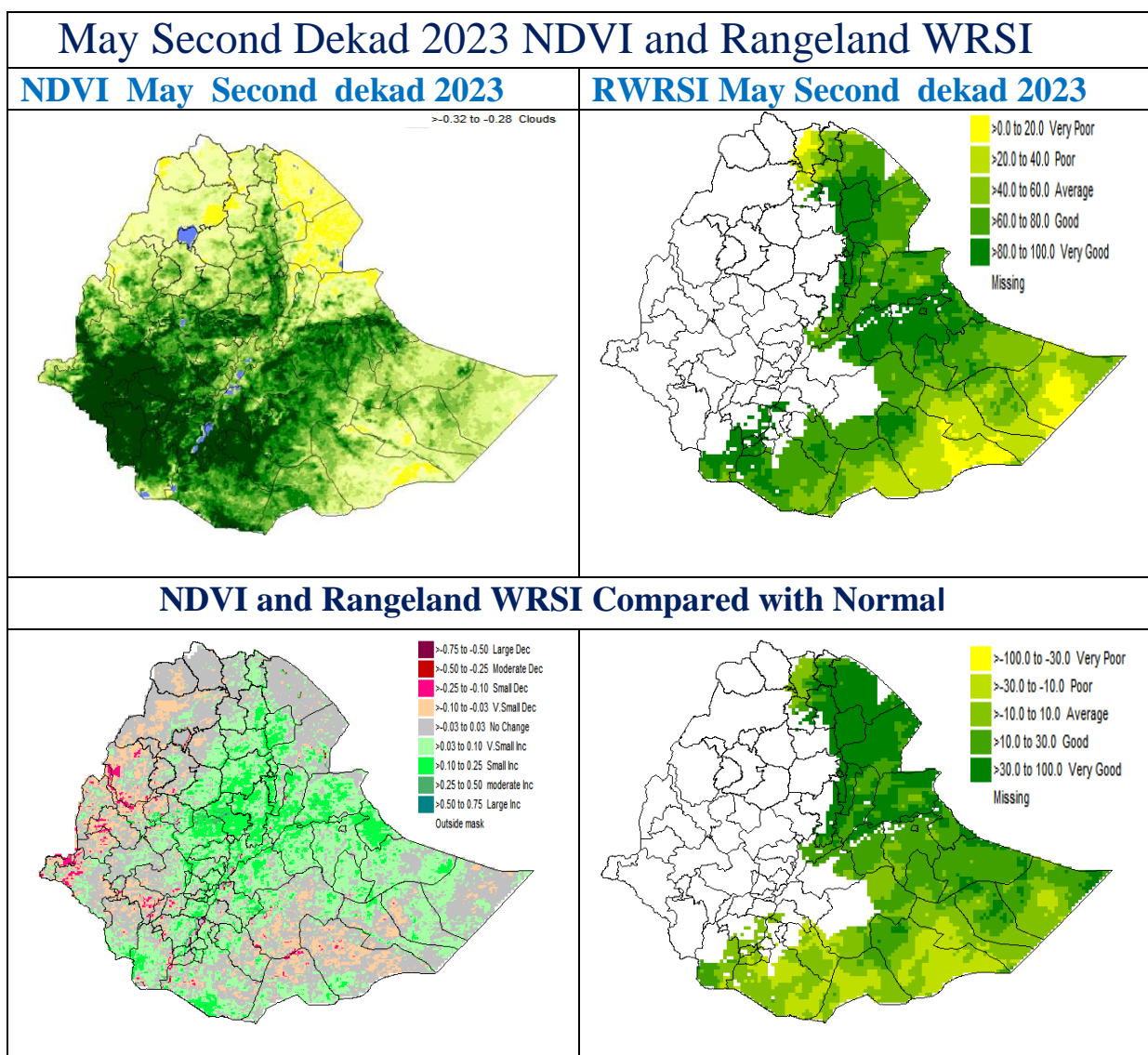


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - May 11-20, 2023

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING THIRD DEKAD of MARCH 2023

In the coming third dekad of May 2023, the meteorological forecast information indicates that due to Kirmet seasonal rainfall activity started the enhanced moisture expected in amount and distribution over western half of the country. Due to this particularly better moisture expected over western and north western parts 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, concerned bodies and farmers are advised to use the expected moisture wisely and efficiently. However, the expected heavy fall 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. 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.

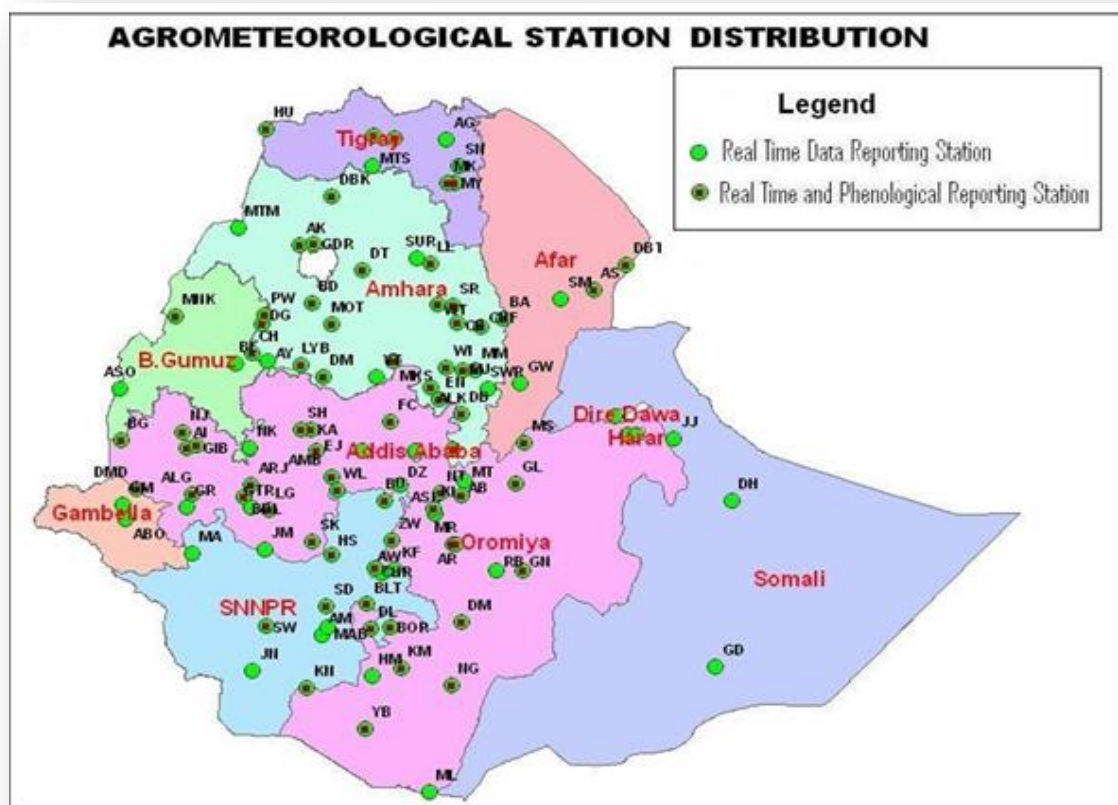
DEKAD: - First or second ten days or the remaining days of a month.

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