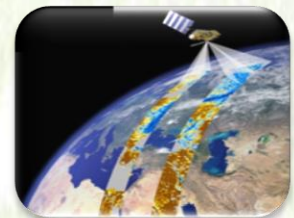
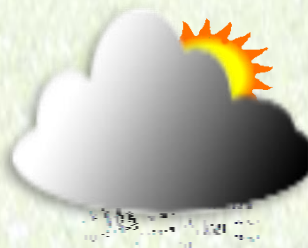


# ETHIOPIA METEOROLOGY INSTITUTE

## Agrometeorological Bulletin

### TEN DAY AGROMETEOROLOGICAL BULLETIN

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Ethiopia Meteorology Institute P.O.BOX 1090, ADDIS ABABA, ETHIOPIA

Website: [http:// www.ethiomet.gov.et](http://www.ethiomet.gov.et) E-mail [nmsa@ethionet.et](mailto:nmsa@ethionet.et) Fax 251-1-517066, Tel. 251-1-512299

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## **FOREWARD**

This Agro met Bulletin is prepared and disseminated by the National Meteorological Agency (NMA). 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  
NMA  
P.O.Box 1090  
Tel: 011661-57-79  
FAX 00251-11-6625292  
E-mail [nmsa@ethionet.et](mailto:nmsa@ethionet.et)  
Addis Ababa

## SUMMARY

During the third dekad of March 2023, according to the data collected from various agro meteorological stations, light to medium amount of moisture was observed particularly during the first half of the dekad over south-eastern and eastern parts of the country and after the mid of the dekad extended over central, south-western and north-eastern parts. In line with this, the received moisture combination with the moisture obtained in the previous dekads had positive impact to perform large scale 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. On the other hand, in the low-land areas of the western, north-western, north-eastern and southern parts of the country, the highest temperature of the day was recorded above 35 degrees Celsius. It had negative impact on the overall agricultural activity and the supply of animal fodder and water in the pastoral area.

During 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 long-term 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 31.5, Masha 40.4 and 30.6, Woliso 36.9 mm rain fall was recived . Due to these the heavy moisture condition had a negative side but contributed significantly to most of the agricultural activities.

# 1. WEATHER ASSESSMENT

## 1.1. Rainfall amount (1 – 10 April, 2023)

During the first Dekad of April 2023, pocket areas of South Wello, Tip areas of Afar Zone 4&1, North, and South West Shewa, and Gurage, pocket areas of Arsi and West Hararaghe Sheka, poket areas of Godere, Keffa, Bench Maji, Basketo, South Omo, Dirsha and Dawero Zones are Received 50-100 mm rain fall. North and South Wello, Oromia Zone, Afar Zone 1&3,4, half of East Gojjam , East Wellega, North, West and South West Shewa, Addis Ababa Zone, Gurage, Half of Illibabur, Jimma, Silite,Sheka, Godere, Dawero half of Basketo, Alaba, Konso, Amaro, pocket areas of Borena, Bale, and Guji, Arsi, West and East Hararghe, Fik, half of Degahabur, Jijiga and Half of Shinile Zones are received 25-50mm rain fall. Pocket areas of East and South Tigray, Afar Zone 1,2,3, &5, pocket areas of Wagihemra, South Gonder, North Wello, East Gojjam, East Wollega, Illibabur, Gambella Zone 1&2, half of Shinile, and Degahabur, Bale, Borena, Liben, Afder, Gode, Korahе,Wardar and half of Degahbur Zones are received 5-25 mm rain fall . the rest part of the country exhibited 0-5mm Rainfall

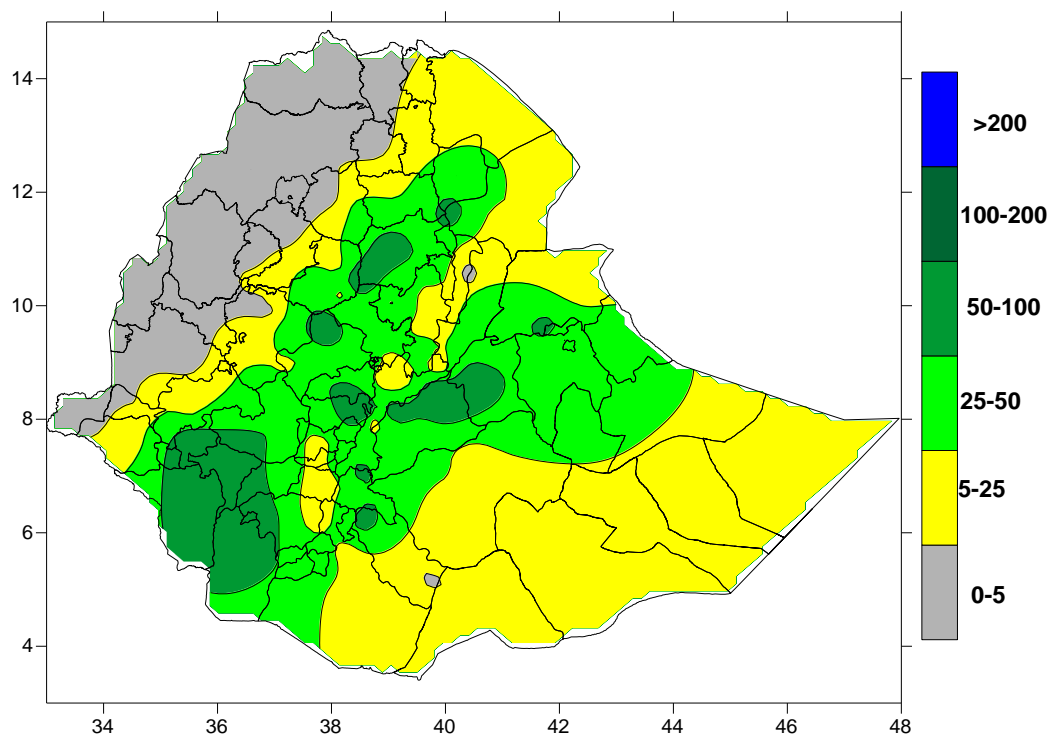


Figure 1. Rainfall distribution in mm (1– 10) April 2023

## 1.2. Rainfall Anomaly (1 – 10 April, 2023)

During the first Dekad of April 2023, much of the country North Eastern, Central, Western, Southern, South Eastern and pocket areas of South Western part of the country was experienced Normal to, Above Normal rain fall condition. On the other hand, North Western, Western and some areas of South Western part of the country received Much Below Normal to Belo Normal Rain Fall Condition.

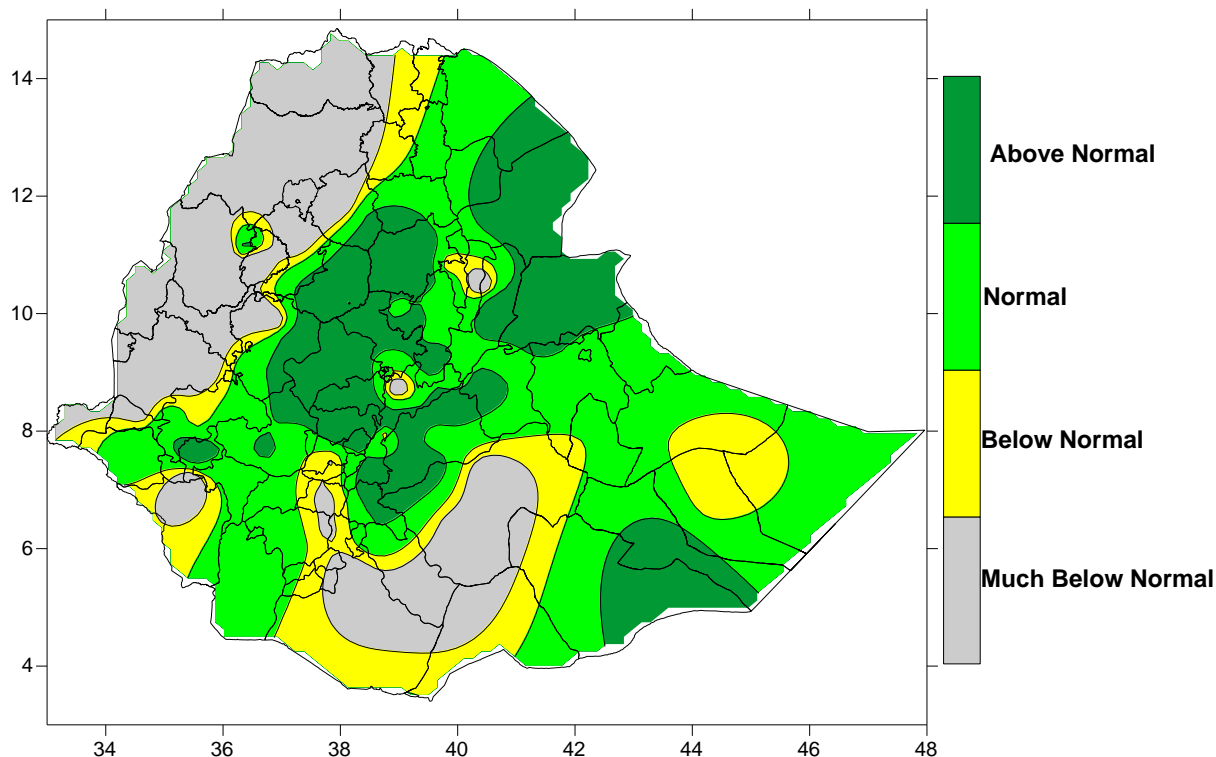


Figure 2: Percent of normal rainfall distribution (1-10 April 2023)

### 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 2023)

During the first Dekad of April 2023, the most parts of the countries North Eastern, Central, South Western, Southern parts of the country was experienced Humid to. the rest part of the country the moisture condition was dry to Very Dry condition

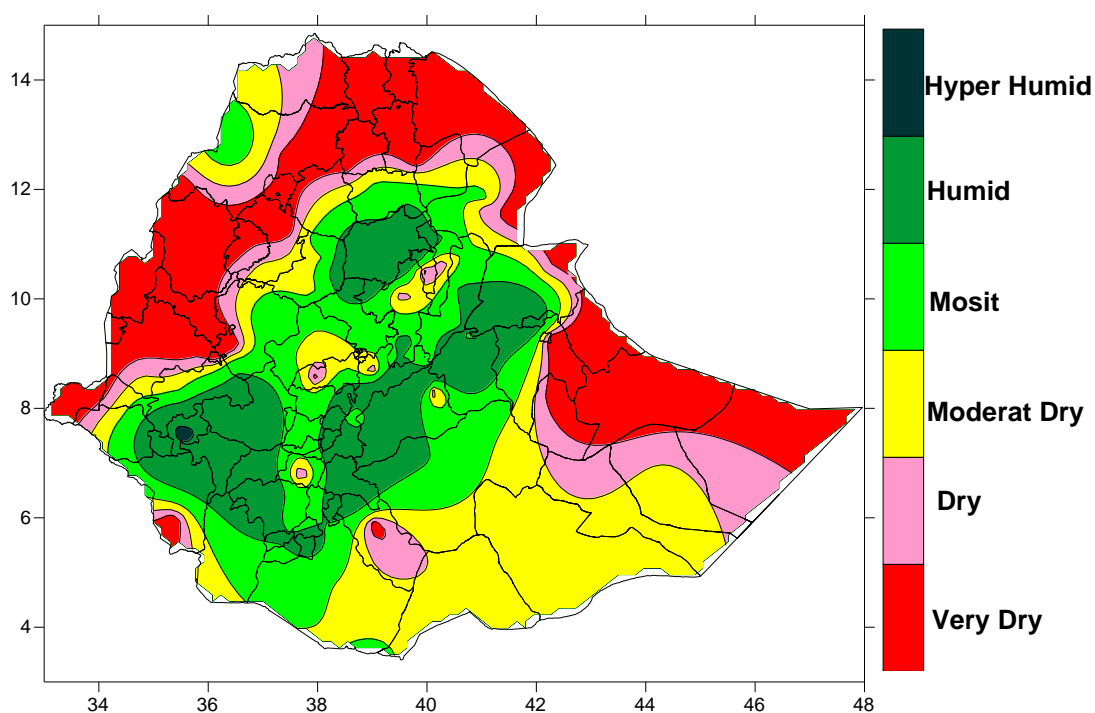


Figure.3. Moisture Status (1-10 April, 2023)

## 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

### 2.1. Vegetation Condition and Impact on Agriculture

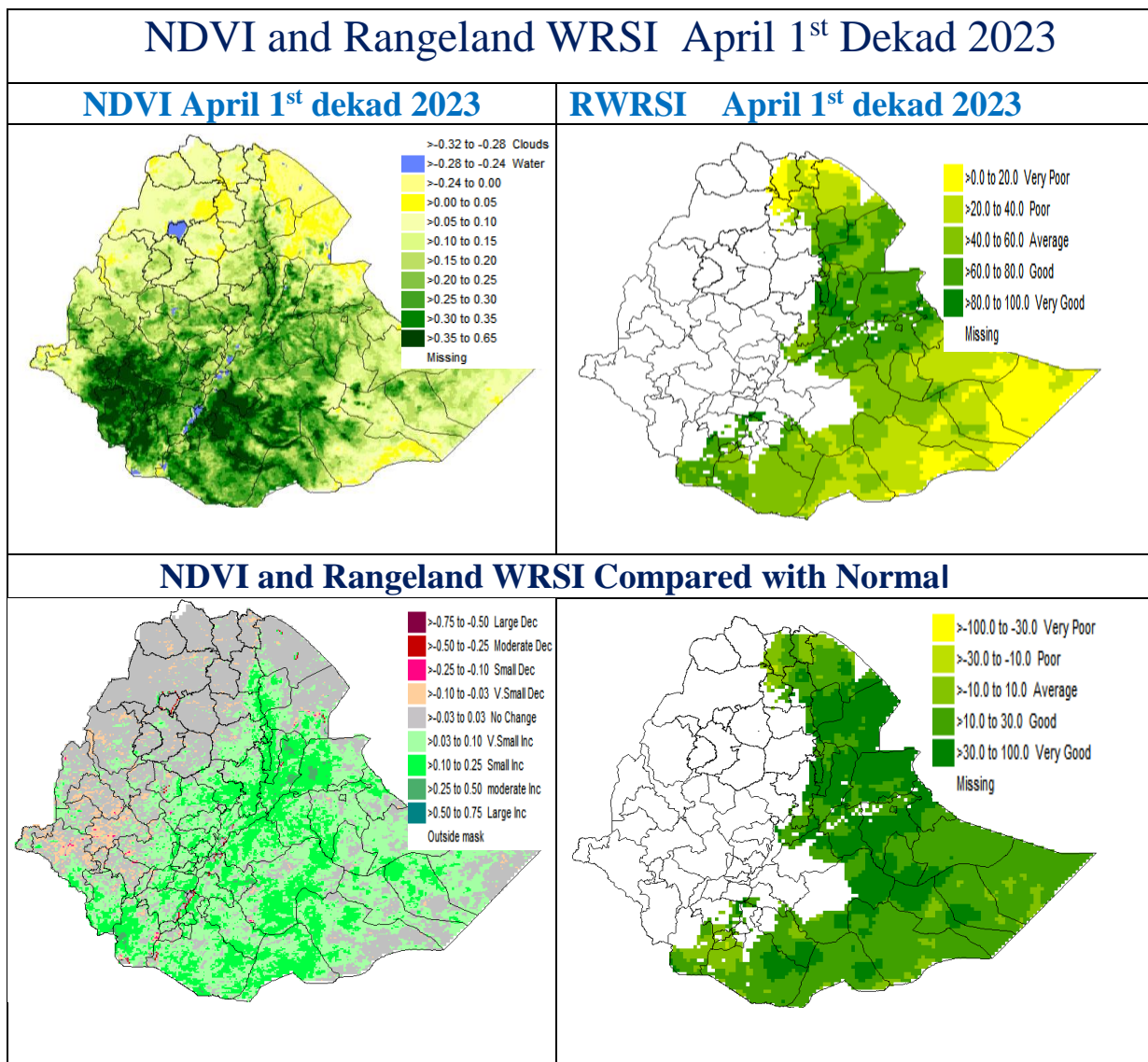


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal April 1-10, 2023

Generally During the first dekad of February 2023, related to Moisture condition, the NDVI was Good in Most part of Belg, Growing areas of central South, South Western and South Eastern parts of the country. The Rang-land WRSI in these Dekade also good in Pastural and Agro-Pastural areas of the country



## **2.2. Expected Weather Impact on Agriculture during the Coming February 2<sup>nd</sup> Dekad, 2023**

In Normal condition, April is a relatively wet season for Belg and Meher crop growing areas. Along with this the second Dekade of April 2023's weather forecast data indicates that because of favorable weather conditions, the rain will persist in the same condition., so that the Belg growing regions in the south, southeast, southwest, west, and central parts of the country will have better moisture. This situation will be crucial for providing grazing and drinking water for pastoralists and Agro-pastoralists as well as meeting the water needs of perennial crops that have been sown and are in various stages of growth. It is advised that the parties concerned in the sector make the required provisions because it is anticipated that there will be good conditions for collecting and storing the rainfall found in dry regions. Moreover, the relevant parties are encouraged to act in order to minimize damages since occasionally heavy rainfall in some areas may result in floods and soil erosion in the fields.

### **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.

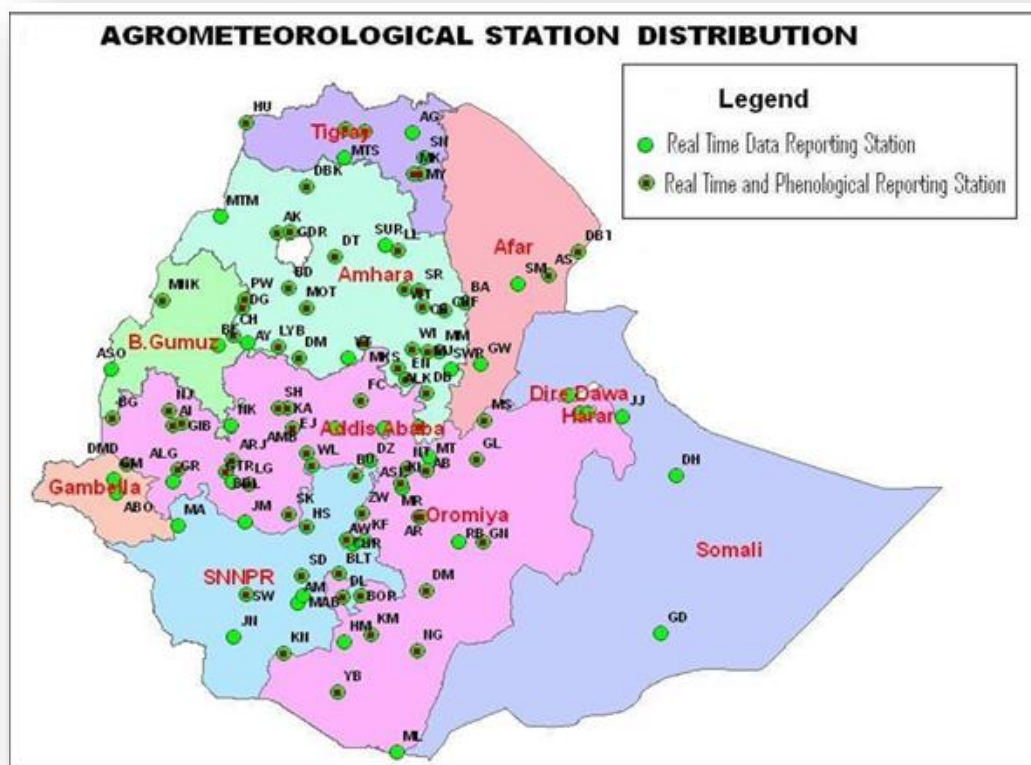
**DEKAD:** - First or second ten days or the remaining days of a month.

**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	Holler	HL	Mieso	MS		
D. Markos	DM	Hossaina	HS	Moyale	ML		
				M/Selam	MSL		