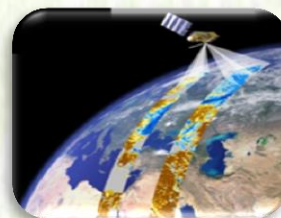


# **ETHIOPIA METEOROLOGY INSTITUTE**

## **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 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 dekad of September 2024, rainfall both in amount and distribution was cover over most Meher producing and Kiremt rain benefiting areas of the country. In line with this, Eastern Amhara, Western Tigray and Oromia as well as in the central areas of the country recorded light to heavy rains at many places. The observed moisture condition was highly important for long-term crops such as sorghum and maize, which were sown earlier and are different stages of growth, as well as those that were planted in the kiremt and found in developing, fruiting and at different stages of growth, besides creating favourable conditions for pulses crops and oilseeds. Which also improve the availability of pasture and drinking water over eastern and north eastern pastoral and semi-pastoral areas. On the other hand, heavy fall ranging from 30.5 – 86.6 mm in one rainy day observed over some areas of the country. The extended moisture over southern part of the country was very important for the farming activities in the area. On the other hand, in some areas of the country, in related with heavy and continuous moisture, there have been flood events in flood-prone areas, landslides in high and sloping areas, cracks, as well as waterlogging on the crops field. And also it has been there was damage to crops and property in cause of landslide in Asagirt worda of North Showa zone.

In normal situation after the second dekad of September day to day the enhanced moisture withdrawal from Eastern and north eastern Kiremt rain benefiting areas of the country, however in the second dekad of September 2024 the rainfall performance better performed Meher crop growing and Kiremt rain benefiting areas particularly the western half and central parts of the country had received good moisture in amount and distribution. This condition had been satisfy daily crop water needs of various early planted Meher season crops including the long cycle crops, such as maize and Sorghums, vegetables, fruits and perennial plants. Moreover the extended moisture over the southern pastoral and agro pastoral community might play crucial role toward improving the availability of pasture and drinking water as well as to regenerate natural and artificial ponds. On the other hand the observed continuous and heavy fall more than 30 mm in 24 hours over some parts of the country experience excess soil moisture which might lead to water logging. Furthermore, the reported information from Southwestern Region of Ethiopia of Dawro zone, Tercha worda due to locally heavy fall and the occurrence of flood there was washing away matured crops, the death of domestic animals and properties damage.



# 1. WEATHER ASSESSMENT

## 1.1. Rainfall amount (11 – 20 September 2024)

During the Second dekad of September 2024, some parts of Metekeke, Kemashe, dividend areas of East and West Wollega, Illubabor, Jimma and Kelem Wollega, and some parts of wolayita zones were received above 100 mm of rainfall. West and Central Tigray, North and West Gonder, Bahirdar, West Gojam, Metekeke, Assossa, Awi, Kemashe, East and West Wollega, Illubabor, Jimma, and Kelem Wollega, all zones of Gambela, Sheka, Godere, Keffa, Bench Maji, Basketo, most Shewa zones and some parts of Wolayita, Alaba, Hadia, Jigjiga, and some parts of Harar and East Hararghe Zones were dominantly received 50-100 mm of rainfall. Some parts of North and South Gonder, North and South Wollo, East Gojam, South Tigray, Oromia Special Zone, some parts of Afar Zone1 and 5, Shinle, East and West Hararghe, some parts of Fik, Degahabour, Guraghe, Silte, South Omo, Gedeo and Konso Zones were dominantly received 25-50 mm of rainfall. On the other hand most Afar zones, some parts of East Gojam, Waghimira, North Wollo, Arsi, Bale, Gode, Warder, Borena and Amaro Zones were received 5-25 mm of rainfall. However, the rest parts of the country, which does not get Meher rainfall (South and Southeast) or climatologically dry areas were, received less than 5mm of rainfall.

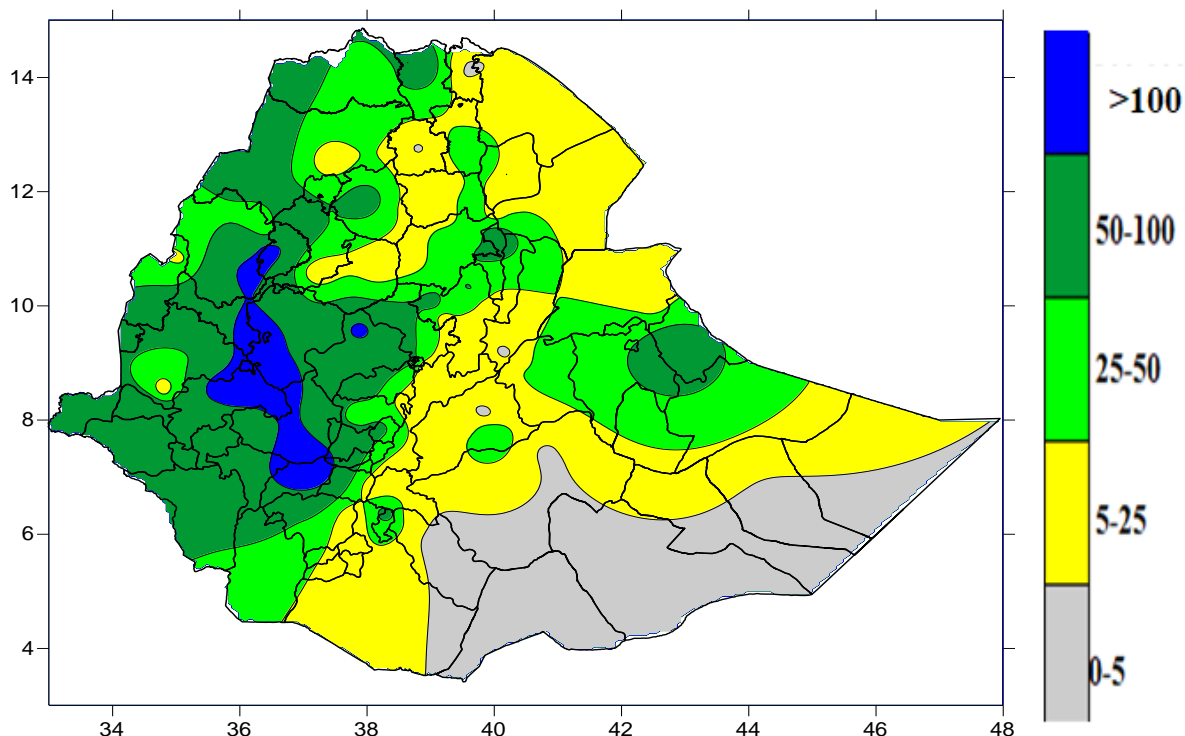


Fig.2 Total Rainfall Distribution in mm (11 – 20 September 2024)

## 1.2. Rainfall Anomaly (11 – 20 September 2024)

During the Second dekad of September 2024, Most Kiremt rainfall benefiting and Meher crop growing areas of the country were exhibited Normal to above Normal Rainfall condition. On the other hand, some pocket areas Northern, Central half parts of the country and climatologically dry areas were experienced below Normal too Much below Normal rainfall condition.

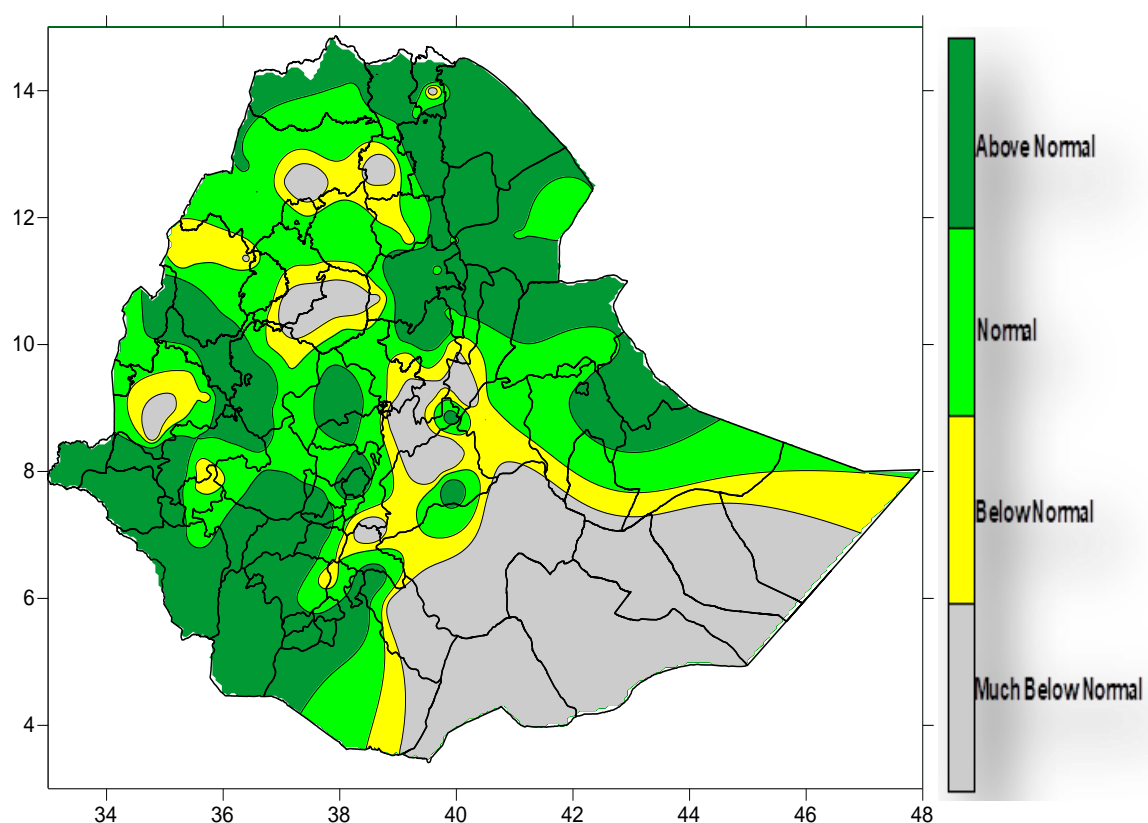


Fig.2 Percent of Normal Rainfall Distribution (11 – 20 September 2024)

### 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 September 2024)

As indicated on the moisture status map below during the second dekad of September 2024 most parts of Meher growing and Kiremt rain benefiting areas of the country exhibited Moist to Hyper Humid moisture condition. The rest parts of the countries exhibited moderately Dry to Very Dry.

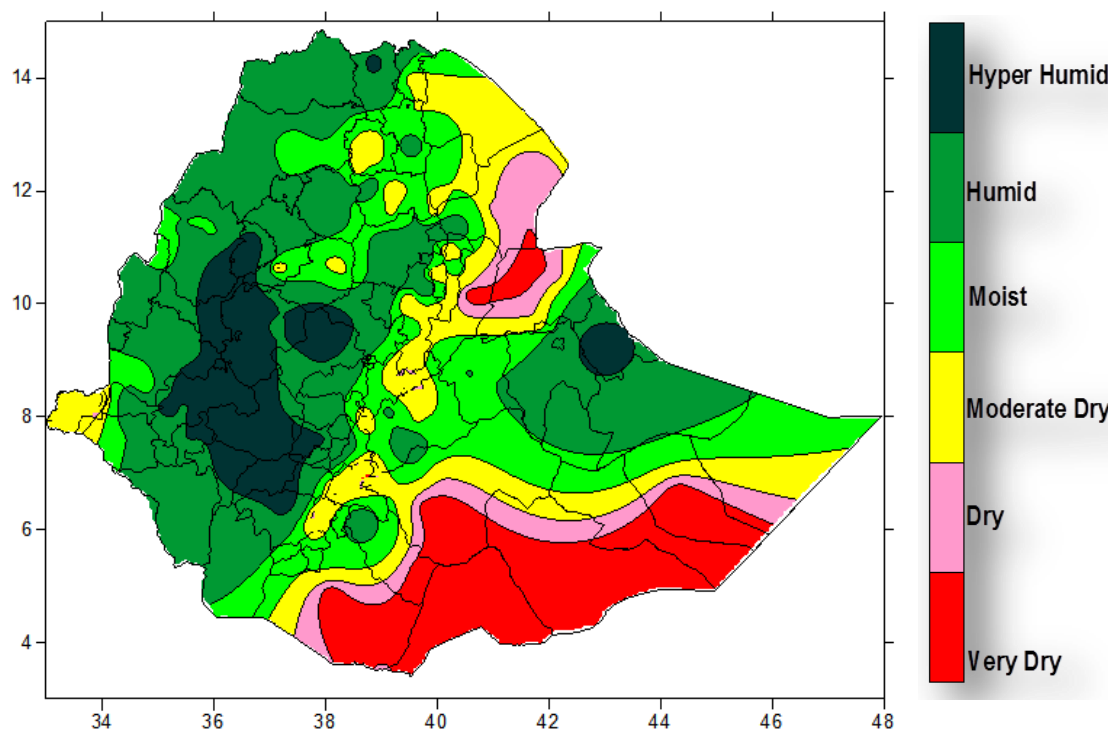
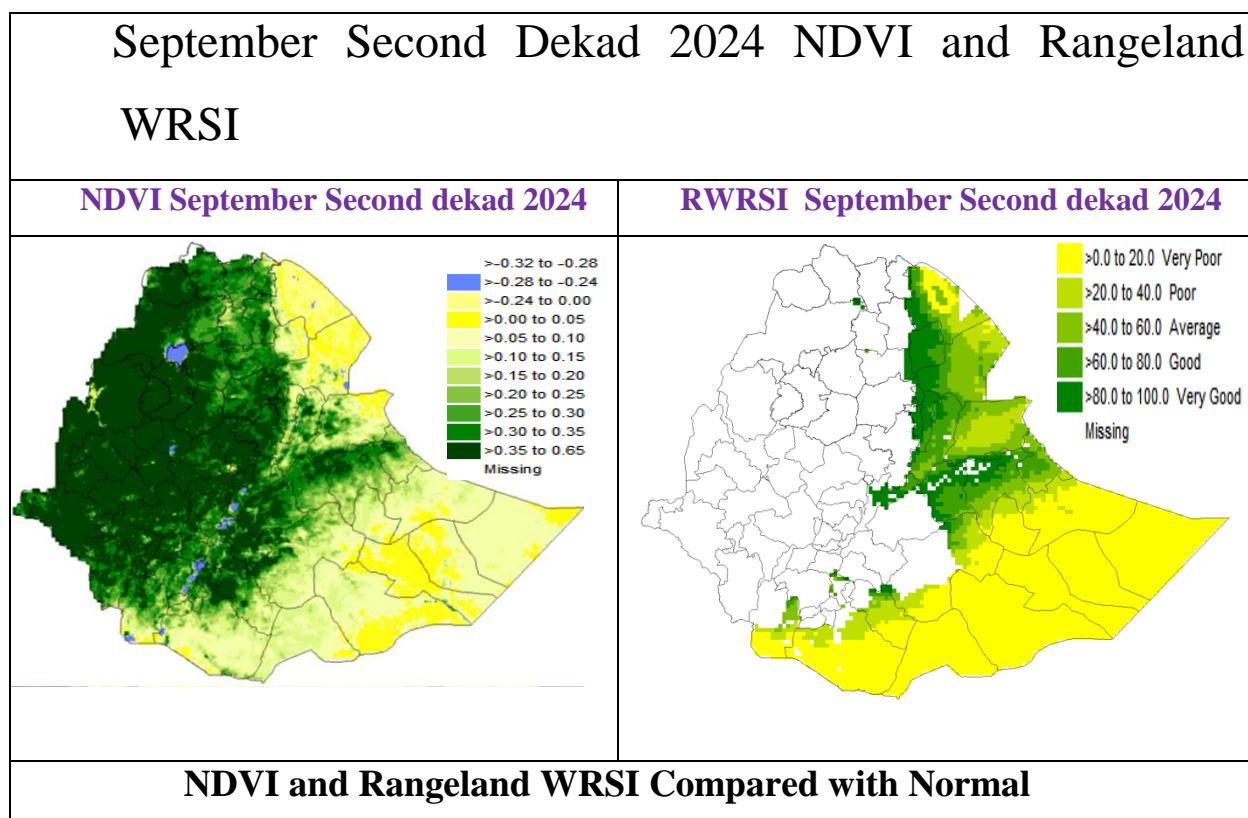


Fig. 3 Moisture status for (11 – 20 September 2024)

## 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

### 2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the second dekad of September 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. and in addition to the vegetation greenness, the rangeland water requierment for livestock is also improved and enhanced over the Eastern and Northeastern pastoral areas illustrated in Figure 4, Rangeland WRSI in %. This condition might have a positive implication for harvesting water and pasture availability for pastoral and agro pastoral areas.





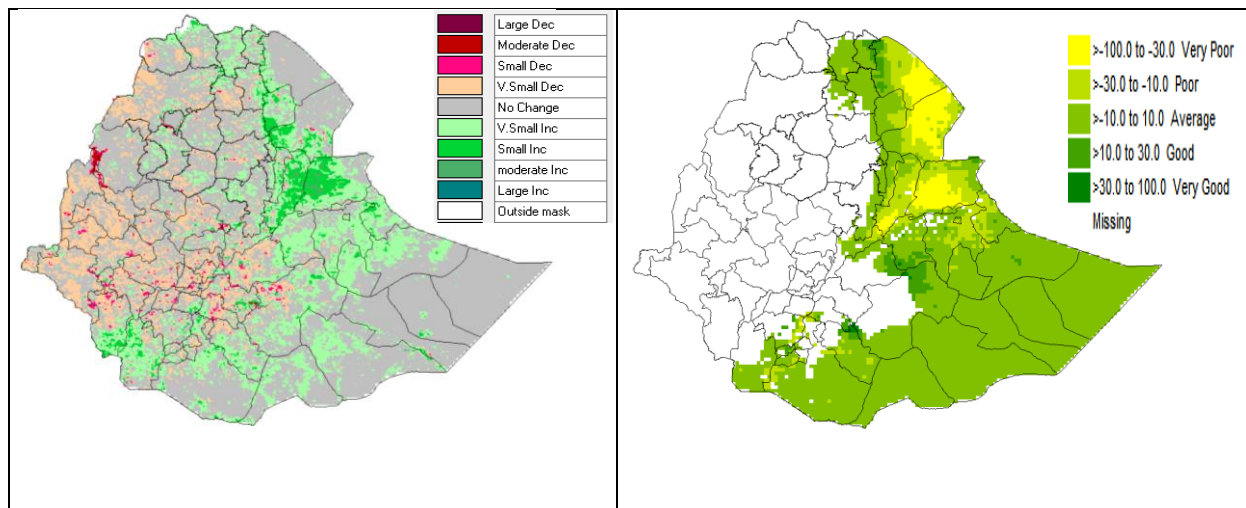


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - September 11-20, 2024

## 2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING THIRD DEKAD OF SEPTEMBER 2024

In the upcoming third dekad of September 2024, meteorological forecast indicates that, the seasonal rainfall activity is expected to continue over various Kiremt rain-benefiting and Meher-producing areas of the country. In line with this western half and central parts of the country will have better moisture condition. This situation will benefit the water needs of various Meher crops at different stages of development, maturing of crops, early sown crops, Fruits, Vegetables, permanent plants and also improve the supply of pasture and drinking water over East and Northeast pastoral and Agro-pastoral areas as well as creating favourable conditions for collecting and harvesting rainwater. More over the extended moisture over southern parts of the country will be favourable for pasture and drinking water over pastoral and agro-pastoral areas. On the other hand, there may be the expected excess moisture condition leads to water logging in western and some Central areas of the country. Therefore appropriate measure should be taken in advance before the expected water logging damages matured crops.

### **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.

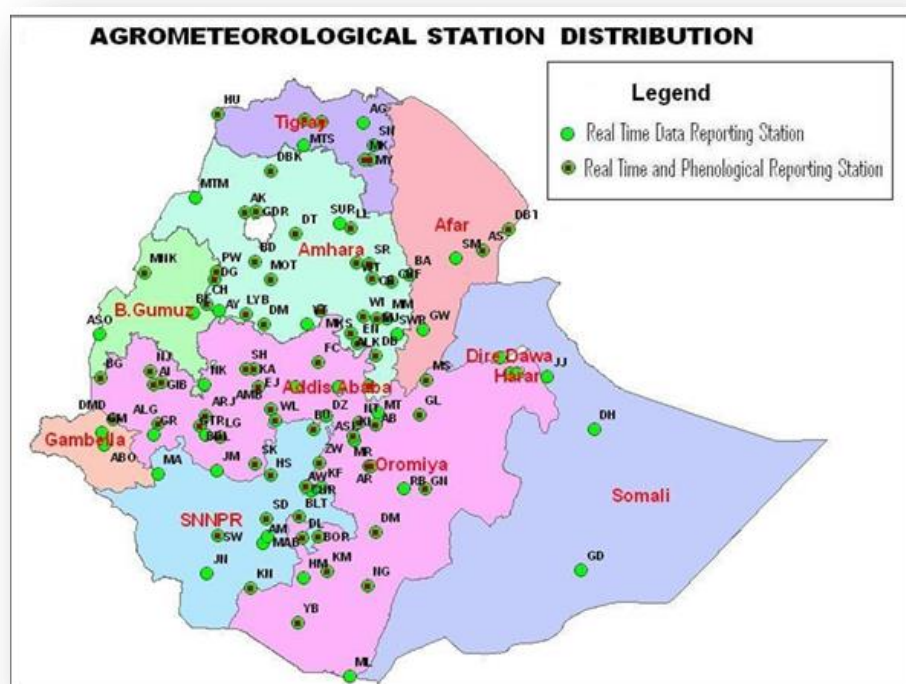
**DEKAD:** - First or second ten days or the remaining days of a month.

**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	SG
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	Mekele	MK	Woliso	WL
Bedelle	BDL	Gonder	GDR	Merraro	MR	Woreilu	WI
BUI	BU	Gore	GR	Metehara	MT	Yabello	YB
Combolcha	CB	H/Mariam	HM	Metema	MTM	Ziway	ZW
D. Berehan	DB	Harer	HR	Mieso	MS		
D. Habour	DH	Holleta	HL	Moyale	ML		
D. Markos	DM	Hossaina	HS	M/Selam	MSL		

