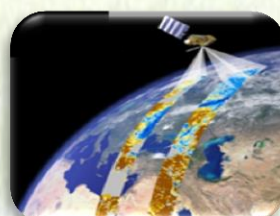


# ETHIOPIA METEOROLOGY INSTITUTE

## Agrometeorological Bulletin

### TEN DAY AGROMETEOROLOGICAL BULLETIN

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## **TABLE OF CONIENTS**

<b>FORE WARD.....</b>	<b>2</b>
<b>SUMMARY .....</b>	<b>3</b>
<b>1. WEATHER ASSESSMENT .....</b>	<b>4</b>
<b>1.1. Rainfall amount (11 – 20 October 2024) .....</b>	<b>4</b>
<b>1.2. Rainfall Anomaly (11 – 20 October 2024).....</b>	<b>5</b>
<b>1.3. Moisture Condition (11– 20 October 2024).....</b>	<b>6</b>
<b>2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON</b>	
<b>AGRICULTURE .....</b>	<b>6</b>
<b>2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE.....</b>	<b>6</b>
<b>2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING THIRD DEKAD OF</b>	
<b>OCTOBER 2024.....</b>	<b>8</b>
<b>3. DEFNITION OF TERMS.....</b>	<b>9</b>

## **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 Institute 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 October 2024, the widespread rains in the South, North West, West, Central, North East and East regions of the country, in terms of amount and distribution, along with improving soil moisture, have resulted in long-term crops such as sorghum and maize, which were found at different stages of growth and fruiting, producing fruits and It was of great importance in terms of improving their water needs for the flowering stage of medium and short term crops, perennial plants, fruits and vegetables. In particular, the moisture extended in the southern parts of the country, which are in their second rainy season in Bega, created a favourable condition for the southern Oromia areas, which practice combination agricultural practices, to land preparation and to sow seeds. It also played a positive impact in enabling pastoralists and semi-pastoralists over in the south and southeast lowlands to have enough pasture and drinking water. On the other hand the observed continuous and heavy fall from 30-84.6 mm in 24 hours over some parts of the country experience excess soil moisture this might lead to water logging and runoff.

During the second dekad of October 2024, the analysed agro meteorological information's indicated that a better moisture condition was observed in amount and distribution over the north-western, western, central, north-eastern and eastern parts of the country. This situation was favourable for satisfied their water needs of various Meher season crops which were under different phenological phase, lately planted and currently found at various growing stages which requiring additional moisture for their further development, moisture needs of fruit and vegetables. Moreover the extended moisture where Bega is second rainy season over southrn Oromia, Southern, South-western and Sidama region and few places of southern Somali region create favourable conditions for the water needs of Bega season crops over southern highland and insure the availability of pasture and drinking water over southern and south-eastern pastorals and agro-pastorals areas, regeneration of natural and artificial ponds as well as the enhanced moisture was a good opportunity to collect and store rainwater.

# 1. WEATHER ASSESSMENT

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

During the Seconde Dekade of October 2024 the rain fall distribution over Metkel, pocket areas os south and west Shewa, Jimma, Keffa, Maji,Basketo, Gedo,Dinsho, South Omo, Konso, Amao Zones are recived 50-100mm rain fall. Half of North Gonder Assosa, Kamshi,North West and South Shewa,Guragi, Sheka,Bench Maji, Borena Gambella zone 3 zones are recived 25-50mm rain fall.West Tigray, South Gonder , West and East Gojjam, Bahir Dar, Awi, Oromia, Zone 5 and 3, AA Zone,Arsi, West and East HarargheAlaba, Hadiya, Sidama, Bale, Liben, Gambella Zone 1&2,Illababur, West Wellega, Godere, Bench Maji, Zones are recived 5-25mm rain fall. The rest part of the country are recived <5mm rain fall.

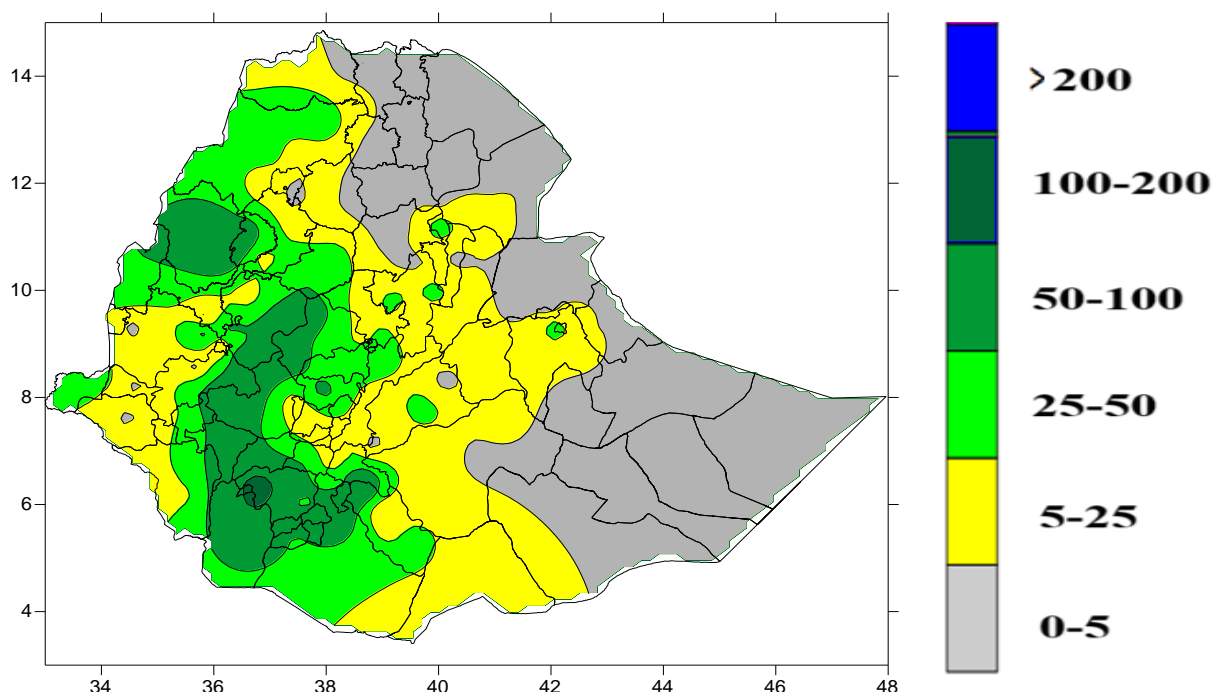


Fig.2 Total Rainfall Distribution in mm (11 – 20 October 2024)



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

During second Dekade of October 2024 some part of North Western, Central, North Eastern, Western and South western areas of the country was experienced Normal to Above Normal Rain fall. On the other hand, the rest part of the country like western, northern, north-eastern and south-eastern parts are experienced Below Normal too much below normal rain fall.

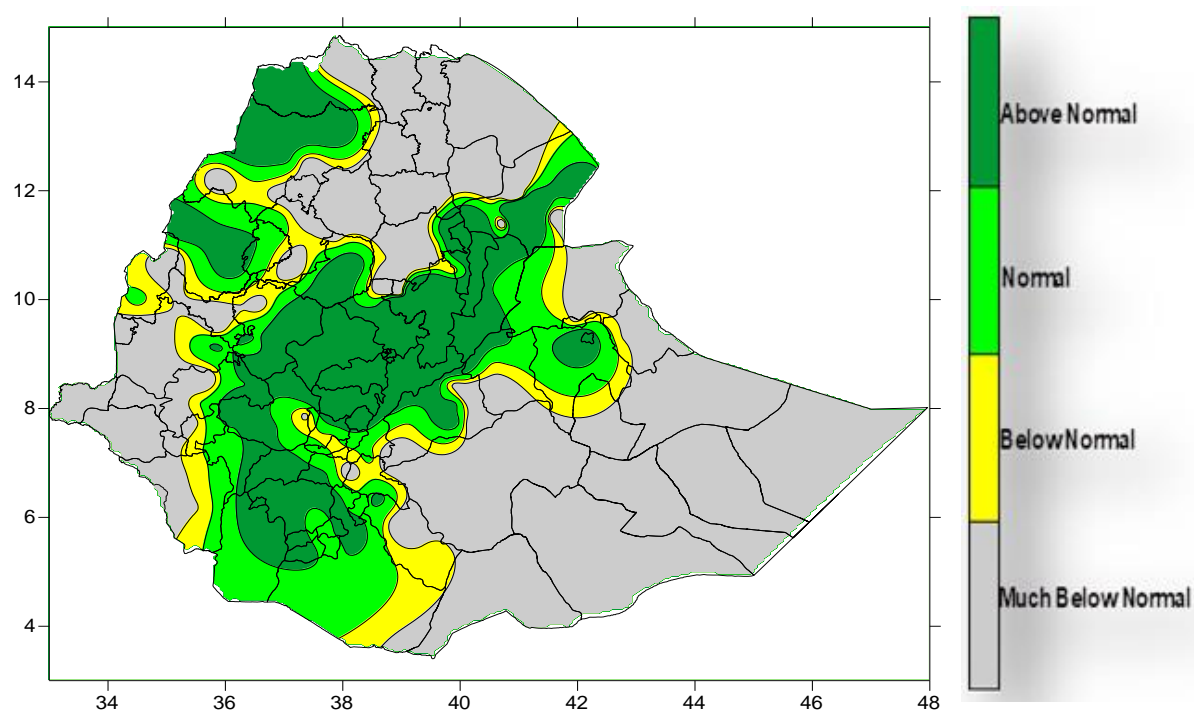


Fig.2 Percent of Normal Rainfall Distribution (11 – 20 October 2024)

### 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 October 2024)

As indicated on the moisture status map below during the second dekad of October 2024 over north western, western, Central, Eastern, Southern and South western parts of the country exhibited Moist to Hyper Humid moisture condition. The rest parts of the country have expanded moderately dry to Very Dry moisture conditions.

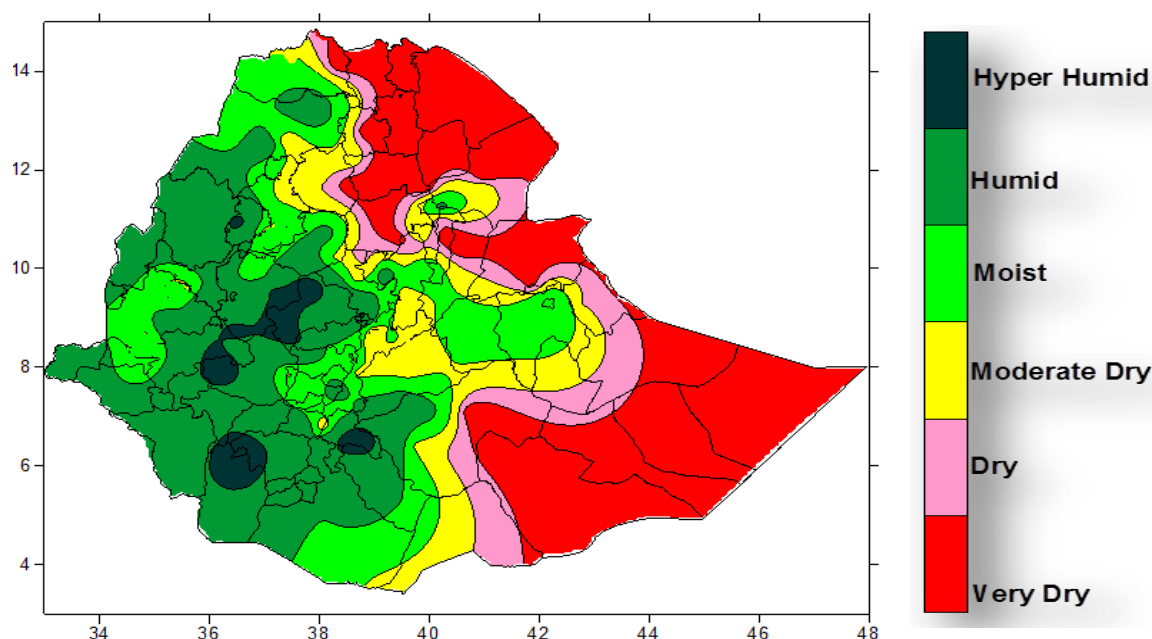


Fig. 3 Moisture status for (11 – 20 October 2024)

## 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

### 2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the second dekad of October 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. In addition to the vegetation greenness, the rangeland water requirement (RWRSI in %) has been increase and enhanced over the south and southeastern pastoral and agro pastoral areas illustrated in Figure 4. This condition might have a positive implication for insure the availability of pasture and drinking water to improve animal's feeds and fodder and regeneration of natural and artificial ponds as well as it was a good opportunity to collect and store rainwater.

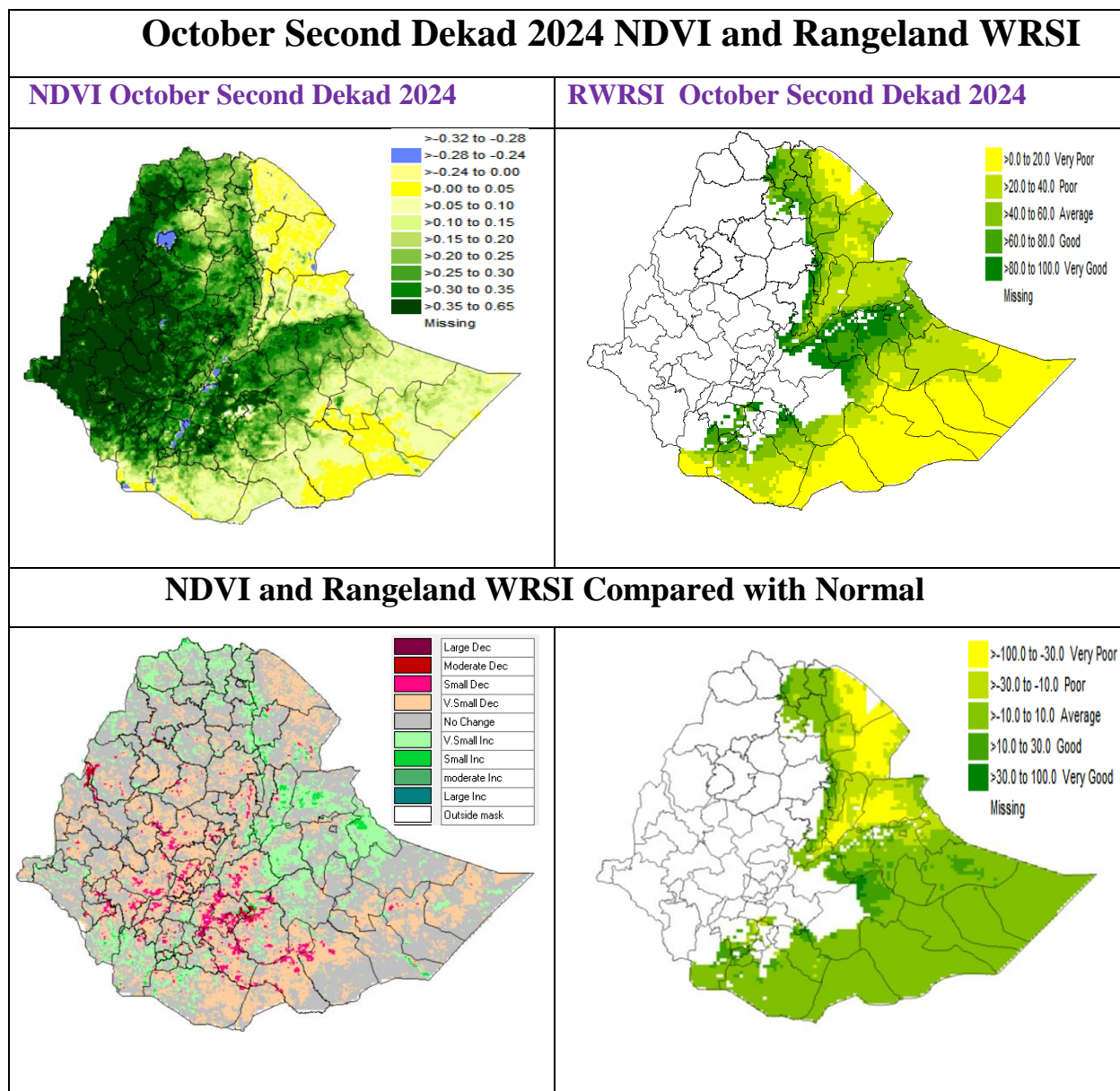


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - October 11-20, 2024



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

In the coming third dekad of October 2024, 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 Borena and Guji 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 over western half of the country will have positive contribution to satisfy the daily water need of not yet fully matured existing Meher crops which are found at different phenological stages. Besides, it would have significant contribution for the production of pulse crops and oil seeds which planted at the end of the season with residual moisture that need complete growth, perennial plants and to improve the availability of pasture and drinking water particularly over the south-western portion of the country. On the other hand, the expected occasional unseasonal rain to prevail over some parts of North and South Wollo, Arsi, north, East, West Shewa, south and southeast Tigry 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. DEFNITION 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 cover s southern, central, eastern and north-eastern parts of the country.

**CROP WATER REQUIREMENTS:** - the amount of water needed to meet the water loss through evapotranspiraion of a disease free crop, growing under non-restricting soil conditions including soil water and fertility.

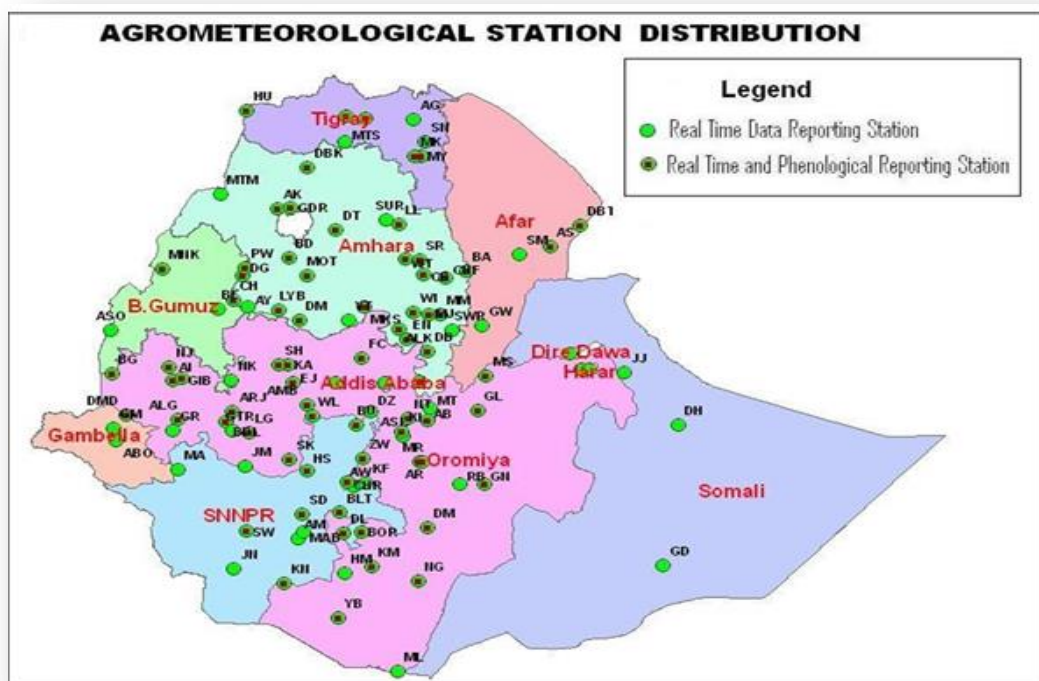
**DEKAD:** - First or second ten days or the remaining days of a month.

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