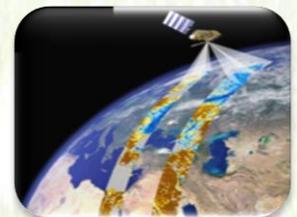


ETHIOPIA METEOROLOGY INSTITUTE

Agrometeorological Bulletin

TEN DAY AGROMETEOROLOGICAL BULLETIN

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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.

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SUMMARY

During the third dekad of January 2023, as of the collected and analyzed agro meteorological information, during the third dekad of Jan 2023, mostly dry moisture condition was prevailing over most parts of the country. Due to the dry moisture, frosty weather condition relatively strengthening during the dekad over the northern, central and eastern high land areas. In line with this, some places recorded below 5⁰C and even some stations recorded below zero, including Arsi robe 2.2, 3.5 and 4.0, Addele 4.0, Haromaya - 1.4, 2.4, 2.8 and 3.0 Amba mariam 4.2, 4.4 and 4.6, Debre berhan 3.4, Dangla 2.5, 3.0, 3.5 and 4.0, Debark 4.5, Emidebr 4.8, Mehal meda 1.5, Wegel tena 2.8, 3.2., 3.5 and 3.6 and Bale robe 4.0 ⁰C. This condition was suitable for the formation of frost occurrence which in turn could affect the overall growth of Bega season horticulture crops, perennial plants and vegetables. However, the prevailing dry moisture condition could favor to complete the ongoing post-harvest activities. On the other hand, at the end of the dekad over southern and south-western parts of the country was experiencing slight to moderate amount of rainfall. This condition could be taken as crucial toward the enhancement of soil moisture and creating conducive condition for land preparation, sowing of crops, the fulfillment of perennial plants of water need.

During the first dekad of February 2023, According to the Agro-meteorology information collected from different part of the country dry, sunny and hot weather condition has observed across much parts of the country. This situation might favor areas where harvest and post-harvest agricultural activities are not fully completed. On the other hand, the decrease in extreme minimum temperature over the northern, central and eastern frost prone highland areas of the country recorded below 5⁰C and even some stations recorded below zero ⁰ C in some days. During the dekad under review the meteorological station report, regarding minimum air temperature, Jimma 2.0, 3.0, and 4.0, Debre berhan -2.0, -0.8, 0.8, 4.8 and -1.0, Haromaia -2.2, 3.8, 4.0 and 1.0, Amba mariam 4.8, Bui 4.6, Emideber 4.6, Mehal meda 1.0, 2.2, and 4.8 Wegel tena 0.5, 1 .0, 1 .2, 2.0, 2.2 and 3.5 ⁰C. This situation could have slightly negative impact on irrigated Bega season crops, perennial plants and vegetables. On the other hand the experienced maximum temperature above 35 ⁰C over north-eastern, south-eastern south western and eastern low land parts of the country enhance evapotranspiration and related with dry moisture condition may affect pasture and water availability over pastoral and agro pastoral areas.

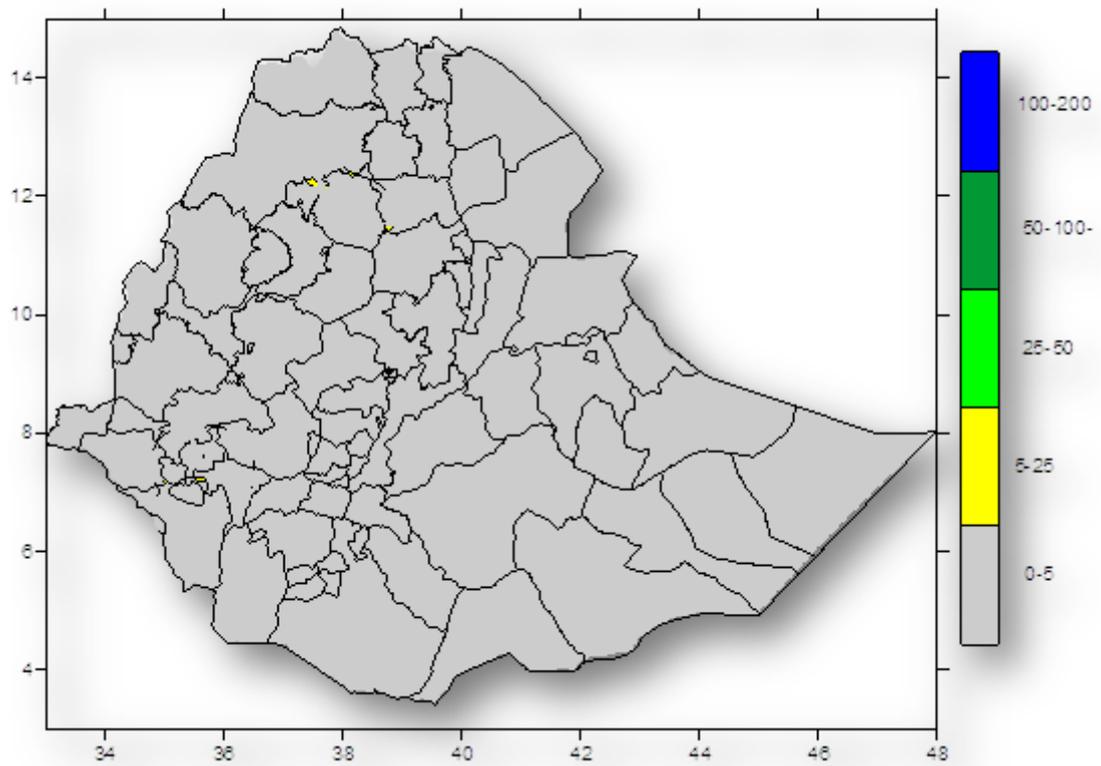


Figure 1. Rainfall distribution in mm (1– 10) February 2023

1. WEATHER ASSESSMENT

1.1. Rainfall amount (1 – 10 January, 2023)

During the first dekad of January 2023, the whole country exhibited 0-5mm Rainfall

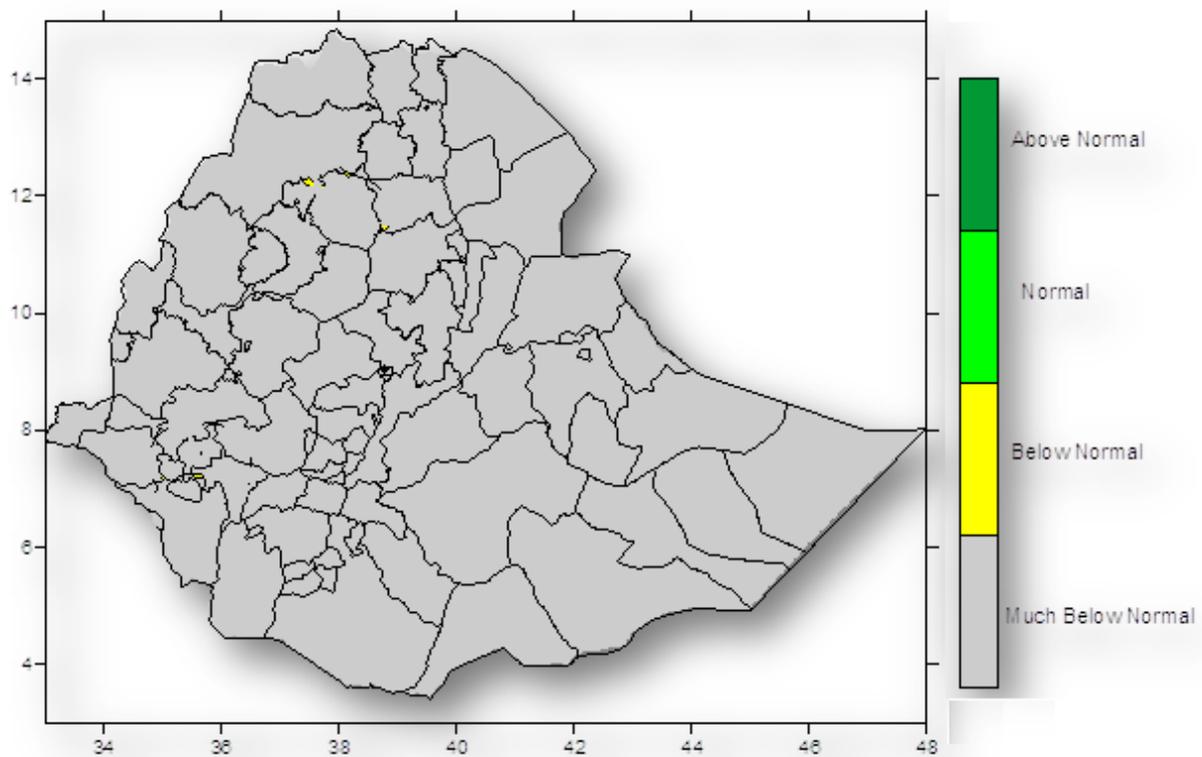


Figure 2: Percent of normal rainfall distribution (1-10 February 2023)

Explanatory notes for the Legend

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

1.2. Rainfall Anomaly (1 – 10 February, 2023)

During the first dekad of February 2023, much of the country was experienced Below Normal rainfall.

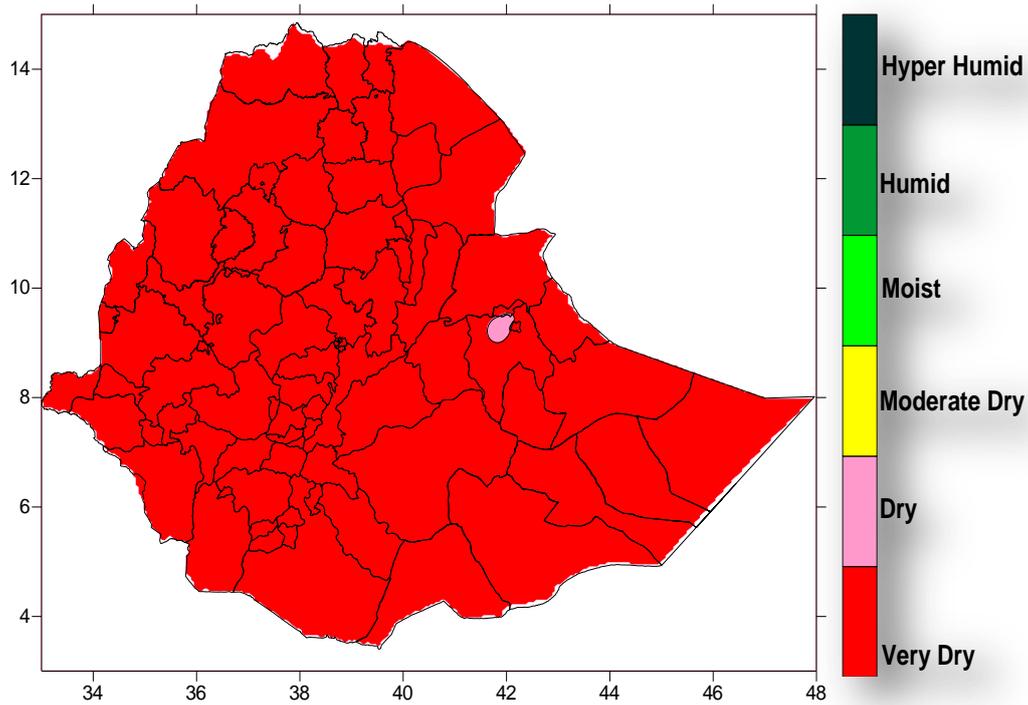


Figure.3. Moisture Status (1-10 February, 2023)

1.3. Moisture Condition (1 – 10 February 2023)

During the first dekad of February 2023, the whole parts of the countries experienced Dry to Very Dry.

NDVI and Rangeland WRSI February 1st Dekad 2023

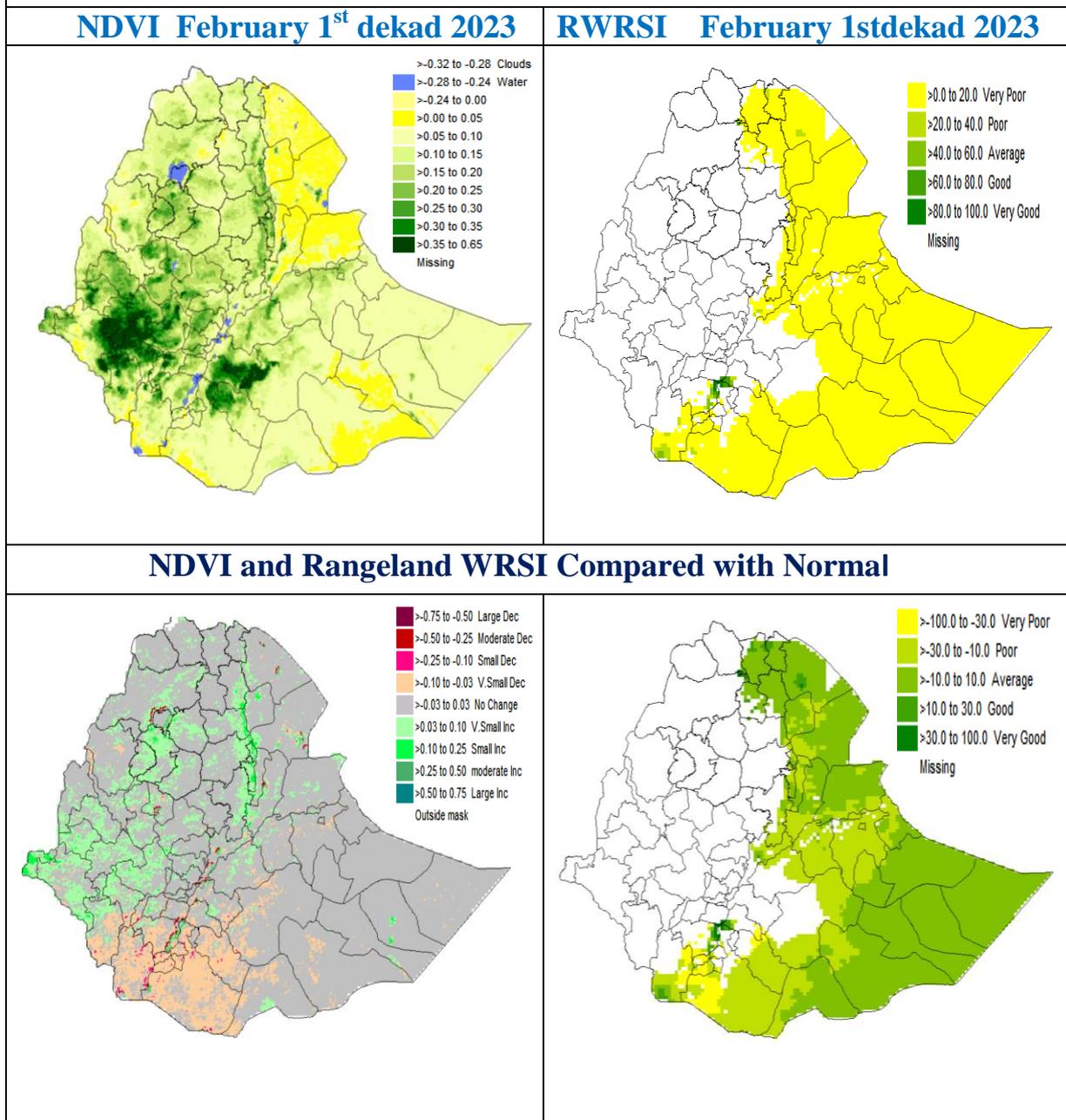


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal February 1-10, 2023

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. Vegetation Condition and Impact on Agriculture

Generally During the first dekad of February 2023, According to the Agro-meteorology information collected from different part of the country dry, sunny and hot weather condition has observed across much parts of the country. This situation might favor areas where harvest and post-harvest agricultural activities are not fully completed. On the other hand, the decrease in extreme minimum temperature over the northern, central and eastern frost prone highland areas of the country recorded below 5⁰C and even some stations recorded below zero ⁰ C in some days. This situation could have slightly negative impact on irrigated Bega season crops, perennial plants and vegetables. On the other hand the experienced maximum temperature above 35 ⁰C over north-eastern, south-eastern south western and eastern low land parts of the country enhance evapo-transpiration and related with dry moisture condition may affect pasture and water availability vegetation condition (Fig.4. NDVI and Rangeland WRSI in %) while the most of the southern part deterioration of greenness. over pastoral and agro pastoral areas.

2.2. Expected Weather Impact on Agriculture during the Coming February 2nd Dekad, 2023

In normal condition, after the second half of February most part of Belg growing areas starts to receive the seasonal rainfall and in relation to this most farmers are involved in land preparation and sowing of Belg season growing crops.

According to the weather forecast, the dry moisture condition is expected to continue for the next dekad of February. This will have a positive impact on the completion of the ongoing Meher crop post-harvest activities. On the other hand, relative improvement of cloud coverage in some days over southern, south- western and the adjacent areas of the rift valley will be expected. However the situation will negatively affected the enhancement of the soil moisture and can play a negative role for Belg season land preparation

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.

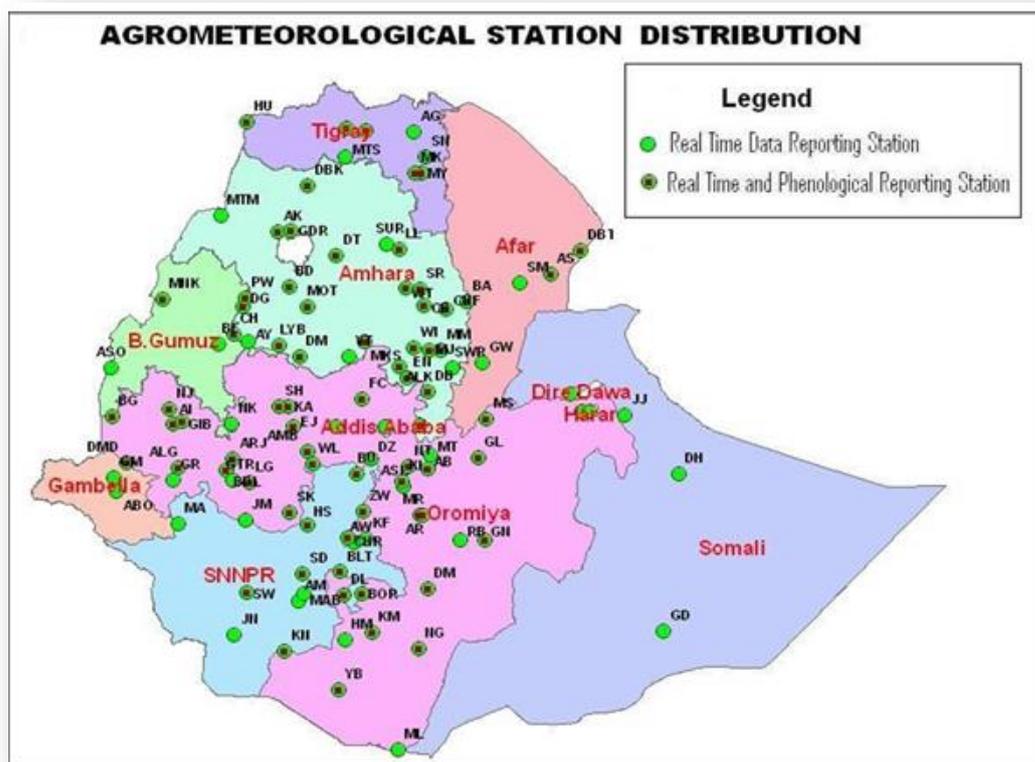
DEKAD: - First or second ten days or the remaining days of a month.

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