#### **FORE WARD**

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 Addis Ababa

### <u>አሀፅሮት</u> እ.ኤ.አ ፌብርዋሪ 2012

እ.ኤ.አ በፌብርዋሪ 2012 የመጀመሪያው አሥር ቀናት በመሳው አገሪቱ እየተሰተዋለ የነበረው የበጋው ደረቅ፣ ፀሐያማና ነፋሻማ የአየር ሁኔታ ለመሽሩ ሰብል ስብሰባና ድህረ ሰብል ስብሰባ ሳሳጠናቀቁ አካባቢዎች ጠቀሜታ ነበረው። በሌሳ በኩልም ከበጋው ደረቅ የአየር ሁኔታ ጋር ተያይዞ በአንዳንድ የአገሪቱ ከፍተኛ ቦታዎች ሳይ የሌሊትና የማለዳው ቅዝቃዜ ከ0 ዲግሪ ሴልሽየስ በታች በመውረዱ ምክንያት በአካባቢው ለሚኖሩት ዕጽዋትና እንሰሳት መናማ እድገት ሳይ አሉታዊ ተጽዕኖ እንደነበረው እሙን ነው።

እ.ኤ.አ በፌብርዋሪ 2012 ሁለተኛ አሥር ቀናት በደቡብና በደቡብ ምዕራብ የአገሪቱ ክፍሎች ላይ የተሻለ የደመና ሽፋን ከማግኘ ታቸው ጋር ተያይዞ በደቡብና ምዕራብ ኦሮሚያና በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል አንዳንድ ቦታዎች ላይ ቀላል ዝናብ አግኝተዋል። ይህም ሁኔታ የበልግ የእርሻ እንቅስቃሴ ቀድመው ለሚጀምሩ አካባቢዎች፣ ለረጅም ጊዜ ሰብሎች የማሳ ዝግጅት፣ ለቋሚ ተክሎች እንዲሁም ለአርብቶ አደሩና ከፊል አርብቶ አደሩ ለግጦሽ ሳርና ለመጠጥ ውሃ አቅርቦት በጎ ጎን ነበረው። በሌላ በኩልም በአብዛኛው የአገሪቱ ክፍሎች ላይ ደረቅና ፀሐያማና ሞቃታማ የአየር ሁኔታ አመዝኖባቸው ነበር። ከዚህም ጋር ተያይዞ በአንዳንድ የአገሪቱ ደጋማ ቦታዎች ላይ የሌሊትና የማለዳው ቅዝቃዜ ከዜሮ ዲግሪ ሴልሽየስ በታችና በአንዳንድ ቆላማ ስፍራዎች ደግሞ የቀኑ ከፍተኛ ሙቀት ከ 40 ዲግሪ ሴልሽየስ በላይ በሆነባቸው አካባቢዎች ለዕፅትና ለእንሰሳት ጨናማ እድገት አሉታዊ ተፅዕኖ እንደሚኖረው እሙን ነው።

በእ.ኤ.አ በፌብርዋሪ 2012 ሶስተኛ አሥር ቀናት በአብዛኛዎቹ የሀገሪቱ ክፍሎች ላይ ተስተውሎ የነበረው ደረቅና ፀሐያማ የአየር ሁኔታ ለበልግ ወቅት የእርሻ እንቅስቃሴ ለማሳ ዝግጅት፣ ለዘር ጊዜ፣ ለቋሚ ተክሎች፣ የውሃ ፍላጎት መሟላት እንዲሁም አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለግጦሽ ሳር ልምላሜና ለመጠዋ ውሀ አቅርቦት አሉታዊ ተፅዕኖ ነበረው። ሆኖም ግን ከደመና ሽፋን መጨመር ጋር በተያያዘም በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል ጥቂት ስፍራዎችና ምዕራብና መካከለኛው ኦሮሚያ ኪስ ቦታዎች ላይ ዝናብ ነበራቸው። ይህም ሁኔታ ለበልጉ የእርሻ ስራ እንቅስቃሴ ለማሣ ዝግጅትና ለቋሚ ሰብሎች የውሀ ፍላጎት መሟላትና አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለግጦሽ ሳር ልምላሜና ለመጠዋ ውሀ አቅርቦት ጠቀሜታ ነበረው።

በአጠቃላይ በፌብርዋሪ ወር 2012 በአብዛኛዎቹ የአገሪቱ ክፍሎች ላይ የነበረው ደረቅና ሀሐያማ የአየር ሁኔታ ለበልግ ወቅት የእርሻ እንቅስቃሴ ለማሳ ዝግጅት፣ ለዘር ጊዜ፣ ለቋሚ ተክሎች፣ የውሃ ፍላጎት መሟላት እንዲሁም ለአርብቶ አደሮችና ክፌል አርብቶ አደሮች አካባቢ ለግጦሽ ሳር ልምላሜና ለመጠዋ ውሀ አቅርቦት አሉታዊ ተፅዕኖ ነበረው። ሆኖም ግን ከደመና ሽፋን መጨመር ጋር በተያያዘ በደቡብ ብሔር ብሔረሰቦች ሀዝቦች ክልል፣ በምዕራብ፣ በመካከለኛውና በደቡብ ኦሮሚያ አንዳንድ ቦታዎች ላይ ከ 1.3-28.8 የሚደርስ ቀላል ዝናብ ከ1-5 ቀናት ነበራቸው። ይህም ሁኔታ ለበልጉ የእርሻ ስራ እንቅስቃሴ ለማሣ ዝግጅትና ለዘር ጊዜ፣ ለቋሚ ሰብሎች የውሀ ፍላጎት መሟላት መሻሻል፣ ለአርብቶ አደሮችና ክፌል አርብቶ አደሮች አካባቢ ለግጦሽ ሳር ልምላሜና ለመጠዋ ውሀ አቅርቦት እንዲሁም ለረጅም ጊዜ ሰብሎች ማለትም ማሽላና በቆሎ ለመሳሰሉት የማሳ ዝግጅትና ለዘር ጊዜ ጠቀሜታ ነበረው። በሌላ በኩልም በአንዳንድ የአገሪቱ ደጋማ ሥፍራዎች ላይ የሌሊትና የማለዳው ቅዝቃዜ ከዜሮ ዲግሪ ሴልሽየስ በታች መውረድና ና በምዕራብና በሰሜን ምዕራቅ ቆላማ ሥፍራዎች ላይ ከ 40 ዲግሪ ሴልሽየስ በላይ የቀኑ ከፍተኛ የሙቀት መጠን ተመዝግቦል። ይህም ሁኔታ ለዕጽዋትና ለእንሰሳት ጤናማ እድገት አሉታዊ ተጽዕኖ እንደ ነበረው ይታወቃል።

#### **SUMMARY**

### February 2012

During the first dekad of February, 2012 dry, windy and sunny weather condition was prevailed over most parts of the country. The situation might have favored harvest and post harvest activities. More over, Bega cool weather condition was dominated especially over central and eastern high lands of the country. Besides to this Koflle, Debre Brehan and Alemaya reported a minimum temperature as low as -2.5, -0.8 and -0.5°C respectively. The situation would have a negative impact on the normal growth and development of plants and livestock.

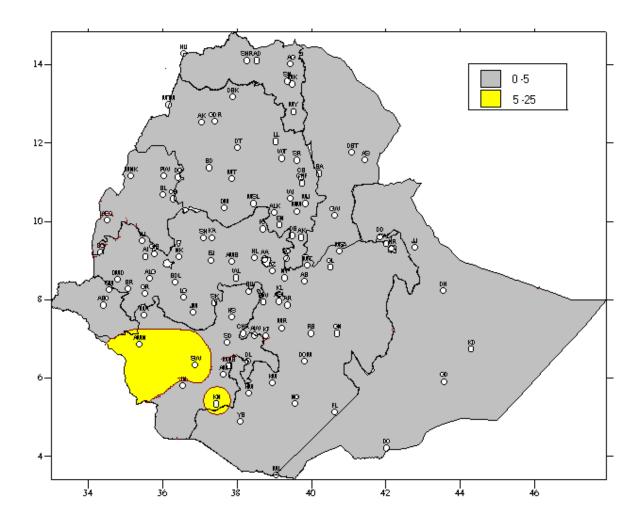
During the second dekad of February, 2012, some parts of southern and western Oromia and SNNPR received little rainfall. The situation might have favored Belg agricultural activities, perennial plants, pasture and drinking water availability in pastoral and agro pastoral areas and land preparation of long cycle crops. While most parts of the country prevailed windy, dry and sunny weather condition. The situation might have a negative impact on the normal growth and development of plants and live stock.

During the third dekad of February 2012, dry and sunny weather condition was prevailed over most parts of the country. The situation might have a negative impact on Belg agricultural activities, availability of water for perennial plants, pasture and drinking water over pastoral and agro pastoral areas and land preparation of long cycle crops. On the other hand, from their cloud coverage over few places of SNNPR and pocket areas of western and central Oromia prevailed 3-12 mm of rain. This might have a positive impact on the improvement of availability of water for perennial plants, pasture and drinking, land preparation for long cycle crops as well as Belg agricultural activities. Besides to this, Koffele, Debre Brehan and Alemaya reported a minimum temperature as low as -2.5,-0.8 and -0.5°C respectively. The situation would have a negative impact on the normal growth and development of plants and livestock.

Generally, during the month of February 2012, dry and sunny weather condition was prevailed over most parts of the country. The situation might have a negative impact on Belg agricultural activities, requirement of water for perennial plants, pasture and drinking water over pastoral and agro pastoral areas and land preparation of long cycle crops. On the other hand southern and southwestern parts of the country prevailed 1.3-28.8 mm of rainfall for 1-5 days. The situation might have favored the availability of water for perennial plants, pasture and drinking water for pastoral and agro pastoral areas and sawing and land preparation of Belg agricultural activities as well as long cycle crops.

### Fig 1. Rainfall distribution in mm (21 – 31 February, 2012)

#### 1. WEATHER ASSESSMENT



# 1.1 (21 – 29 February, 2012)

## 1.1.1 Rainfall amount (Fig.1)

Some parts of western and pocket areas of SNNPR exhibited 5-25 mm rainfall, while the rest parts of the country exhibited little or no rainfall.

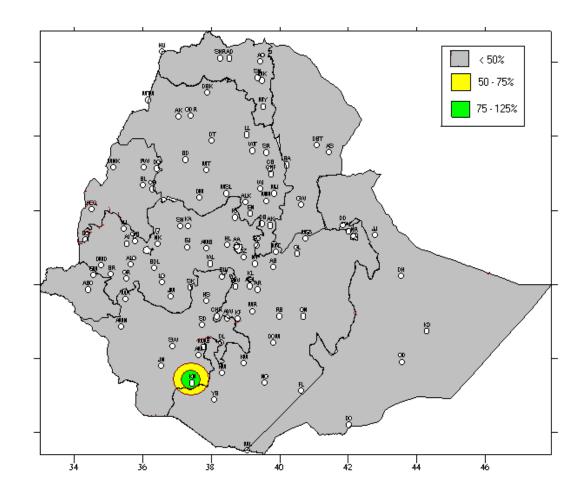


Fig. 2 Percent of normal rainfall distribution (21 – 29 February, 2012)

**Explanatory notes for the Legend** 

< 50-Much below normal

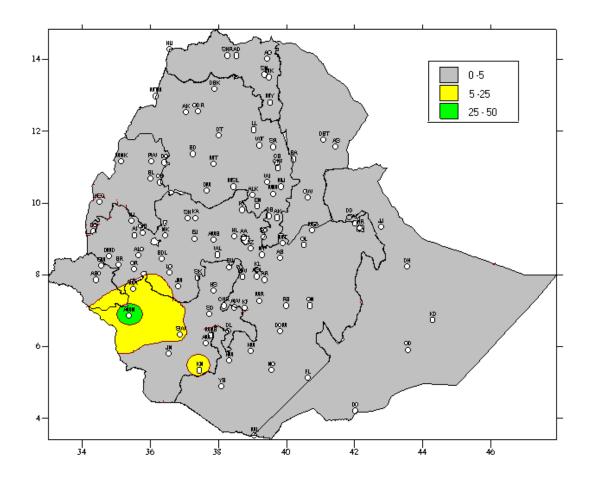
50-75%-Below normal

75-125%- Normal

> 125% - Above normal

### 1.1.2 Rainfall Anomaly (Fig. 2)

Pocket areas of southern SNNPR exhibited below normal to normal rainfall while much parts of the country experienced much below normal rainfall.



Rainfall distribution in mm for the month of February, 2012

## 1.2 February, 2012

## 1.2.1 Rainfall distribution (Fig.3)

Pocket areas of south western parts received 25-50 mm rainfall, few and pocket areas of south western parts of the country exhibited 5-25 mm rainfall, while the rest parts of the country exhibited little or no rainfall.

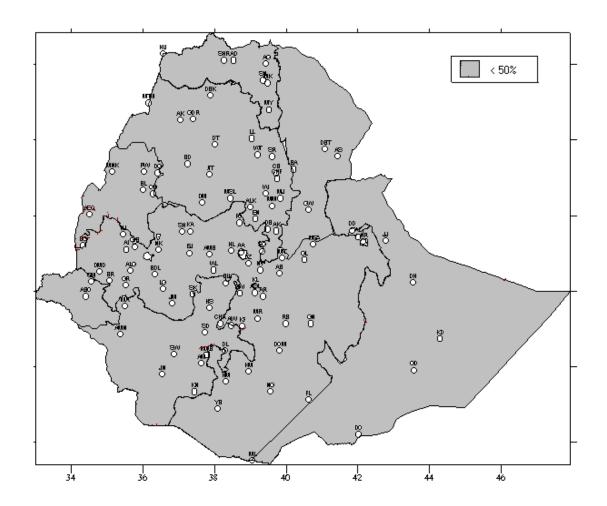


Fig. 4 Percent of Normal Rainfall for the month of February, 2012.

### **Explanatory notes for the Legend:**

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

> 125% - Above normal

### 1.2.2 Rainfall Anomaly (Fig. 4)

Most parts of the country experienced much below normal rainfall

#### 1.3 TEMPERATURE ANOMALY

Some stations over the lowland recorded extreme maximum temperature greater than 35°C. Among the reporting stations: Arba Minch, Gode, Metehara, Aman, Aira, Assosa, Awash Arba, Blate, Chagni, Dubti, Gambela, Gewan, Kebre Dahare, Lare, Mankush, Mirab Abaya, Moyale, Pawe, Sawla, Semera, Sirba Abaya and Tepi recorded 36.0, 38.0, 38.0, 36.0, 37.0, 38.6, 40.5, 36.0, 39.2, 36.5, 42.0, 38.4, 37.3, 42.5, 44.0, 35.5, 36.0, 39.0, 40.4, 35.4, 39.2 and 36.5°C respectively. On the other hand Bale Robe, Adigrat, Alimaya, Amba Mariam, Arsi Robe, Bati, Cheffa, Dangla, Debre Brhan, Fiche, Jijiga, Koffel and Mehal Meda, recorded a minimum temperature as low as 4.0, 1.0, -2.5, 4.5, 2.5, 3.5, 4.5, 3.2, -2.5, 3.7, 4.2, -2.5, 3.5 and 0.5°C respectively. The situation might have a negative impact on the normal growth and development of plants and livestock.

### 2. AGROMETEOROLOGICAL CONDITIONS AND MPACT ON AGRICULTURE

#### 2.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the month of February, 2012, dry and sunny weather condition was prevailed over most parts of the country. The situation might have a negative impact on Belg agricultural activities, requirement of water of perennial plants, pasture and drinking water over pastoral and agro pastoral areas and land preparation of long cycle crops. On the other hand southern and southwestern parts of the country prevailed 1.3-28.8 mm of rainfall for 1-5 days. The situation might have favored the availability of water for perennial plants, pasture and drinking water of pastoral and agro pastoral areas and sawing and land preparation of Belg agricultural activities as well as long cycle crops.

# 2.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE MONTH OF MARCH

During the month of March 2012, the anticipated near normal rainfall over some places of SNNPR, southern Somalia, western and southern Oromia While few places of eastern and central Oromia, southern Tigray, Gambela, northern Somalia, southern Benshangule Gumuz, would expect littlie rainfall, the situation will favor for Belg agricultural activities, perennial plants and sowing and land preparation of long cycle crops like sorghum and maize. Therefore, farmers and the concerned bodies are advised to give attention to exploit the expected little moisture by using proper water harvesting techniques and selecting moisture tolerant crops in order to minimize the effect of moisture stress. On the other hand dry and windy weather condition will expect over most parts of the county, the situation will favor forest fire in areas where daily maximum temperature exceed 35.0°C and relative humidity less than 35.0% this might have favored the occurrence of forest fire hazard. Therefore, concerned bodies should give attention minimize the risk.

Table 2. Climatic and Agro-Climatic elements of different stations for the month of February 2012

No	Stations	Region	R/fall	Normal	% of	Eto	Eto	Moisture
					Normal	mm/day	monthly	statues
1	Adigrat		0.0	10.0	0.0	NA	NA	NA
2	Adwa	TIGRAY	0.0	7.0	0.0	NA	NA	NA
3	Maichew		0.0	25.2	0.0	2.4	74.5	VD
4	Mekele		0.0	8.8	0.0	4.1	127.9	VD
1	Dubti	AFAR	0.0	15.3	0.0	4.1	130.5	VD
2	Gewane		0.0	37.5	0.0	4.8	152.0	VD
1	A/Ketema		0.0	20.5	0.0	3.6	113.7	VD
2	B. Dar		0.0	1.8	0.0	2.2	70.8	VD
3	Bati		0.0	41.7	0.0	2.7	86.4	VD
4	Cheffa		0.0	40.0	0.0	3.5	110.2	VD
5	Combolcha		0.0	37.3	0.0	2.8	87.9	VD
6	D.Berehan		0.0	18.6	0.0	2.5	77.7	VD
7	D.Markos		0.0	17.6	0.0	3.6	114.0	VD
8	D/work		0.0	15.9	0.0	3.4	107.0	VD
9	Enewari		0.0	12.6	0.0	4.1	129.9	VD
10	Gondar	AMHARA	0.0	7.9	0.0	3.7	117.7	VD
12	Lalibela		0.0	12.6	0.0	3.3	105.3	VD
13	Majete		0.0	48.8	0.0	3.2	100.9	VD
14	M.Meda		0.0	25.8	0.0	3.2	100.1	VD
15	Mota		0.0	12.6	0.0	3.4	106.4	VD
16	S.Gebeya		0.0	24.3	0.0	3.3	103.2	VD
17	Sirinka		0.0	61.0	0.0	2.8	87.6	VD
18	W.Tena		0.0	23.0	0.0	2.9	91.1	VD
19	w/Illu		0.0	30.4	0.0	3.4	107.0	VD
1	Abomsa		0.0	52.1	0.0	4.0	124.7	VD
2	A. Robe		0.0	52.8		3.6	113.1	VD
3	Aira		0.0	6.0	0.0	0.0	0.0	VD
4	Alemaya		0.0	24.1	0.0	3.8	118.9	VD
5	Ambo		0.0	36.6	0.0	3.7	116.0	VD
6	Arjo		1.6	23.7	6.8	3.1	98.6	VD
7	Bedelle	_	0.0	21.3	0.0	2.8	87.0	VD
8	Begi	OROMIA	0.0	11.6	0.0	3.4	107.3	VD
9	Bui		0.0	50.6	0.0	4.0	127.6	VD
10	Chria		4.5	56.0	8.0	2.7	84.1	VD
11	D.Zeit		0.0	25.4	0.0	3.7	116.0	VD
12	D/mena		0.0	34.6	0.0	3.8	118.9	VD
13	Fiche		0.0	33.0	0.0	2.5	78.3	VD
14	Gelemso		0.0	34.5	0.0	2.6	81.2	VD
15	Woliso		0.0	30.0	0.0	4.5	142.1	VD
16	Gimbi		0.0	4.0	0.0	2.9	92.8	VD
17	Gore		0.3	37.5	0.8	3.1	98.6	VD

18	Jimma		1.8	47.0	3.8	2.9	92.8	VD
19	Limugenet		0.0	36.6	0.0	0.0	0.0	VD
20	koffele		0.0	57.1	0.0	3.4	107.3	VD
21	Kulumsa		2.5	44.3	5.6	3.7	116.0	VD
22	Masha					2.8	87.0	VD
23	Metehara		0.0	30.6	0.0	2.8	87.0	VD
24	Meiso		0.0	39.9	0.0	4.1	130.5	VD
25	Nazereth		0.0	27.2	0.0	4.9	153.7	VD
26	Negelle		0.0	21.5	0.0	5.8	182.7	VD
27	Nedjo		0.0	5.2	0.0	2.9	92.8	VD
28	Nekemte		0.1	15.7	0.6	2.9	92.8	VD
29	Robe		0.0	31.5	0.0	3.5	110.2	VD
30	Shambu		0.0	27.2	0.0	3.0	95.7	VD
31	Ziway		0.0	34.6	0.0	3.0	95.7	VD
	·							
1	Arbaminch		3.0	31.8	9.4	3.4	108.5	VD
2	Awassa	SNNPR	2.2	58.9	3.7	3.6	113.7	VD
3	Jinka		2.6	47.2	5.5	3.2	92.8	VD
4	Bilate		4.0	39.2	10.2	4.4	137.8	VD
5	Konso		12.4	39.8	31.2	3.8	110.2	D
6	H.Mariyam		0.0	25.0	0.0	3.0	93.1	VD
7	Mirababaya		0.2	32.3	0.6	3.6	114.8	VD
8	Sawla		7.4	35.8	20.7	3.5	110.2	VD
9	Hossaina		0.0	51.6	0.0	NA	NA	NA
1	ASOSSA	B/Gumuz	0.0	4.2	0.0	4.3	134.9	VD
2	CHAGINI		0.0	7.1	0.0	3.2	99.8	VD
3	DANGLA		0.0	3.4	0.0	3.0	94.0	VD
1	Gode	SOMALIA	0.0	4.8	0.0	5.8	184.2	VD
2	Jiiiga		0.0	25.0	0.0	3.6	112.8	VD
1	GAMBELA	Gambella	0.0	2.9	0.0	2.8	89.6	VD
						0.0	0.0	VD
1	D/DAWA	D/DAWA	0.0	11.8	0.0	3.6	112.2	VD
						0.0	0.0	VD
1	HARAR	HARAR	0.0	32.7	0.0	3.4	107.9	VD
						0.0	0.0	VD
	A.A. BOLE	A.A	0.0	37.6	0.0	3.9	122.7	VD
1	A.A. OBS		0.0	36.0	0.0	3.3	102.7	VD

**Explanatory Note** 

Reference Evapo-transpiration (mm)

 H
 Humid
 > 1

 M
 Moist
 0.5 - 1

 VD
 Very Dry
 < 0.1</td>

 D
 Dry
 0.1 - 0.25

 MD
 Moderately Dry
 0.25 - 0.5

### **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 southeastern 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 northeastern parts of the country.

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

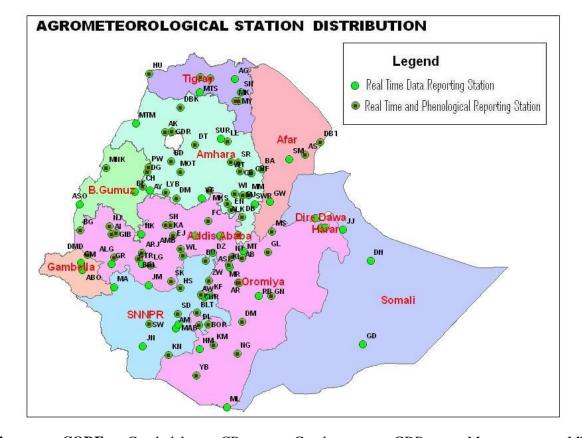
DEKAD: - First or second ten days or the remaining days of a month.

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 southeastern lowlands of the country.

RAINY DAY: - A day with 1 or more mm of rainfall amount.



Station	CODE	Combolcha	CB	Gonder	GDR	Metema	MTM
A. Robe	AR	Chagni	CH	Gore	GR	Mieso	MS
A.A. Bole	AA	Cheffa	CHF	H/Mariam	HM	Moyale	ML
Abomsa	AB	Chira	CHR	Harar	HR	Motta	MT
Abobo	ABO	D.Berehan	DB	Holleta	HL	M/Selam	MSL
Adigrat	AG	D.Habour	DH	Hossaina	HS	Nazereth	NT
Adwa	AD	D.Markos	DM	Humera	HU	Nedjo	NJ
Aira	AI	D.Zeit	DZ	Jijiga	JJ	Negelle	NG
Alemaya	AL	Debark	DBK	Jimma	JM	Nekemte	NK
Alem Ketema	ALK	D/Dawa	DD	Jinka	JN	Pawe	PW
Alge	ALG	D/Mena	DOM	K.Dehar	KD	Robe	RB
Ambo	AMB	D/Odo	DO	K/Mingist	KM	Sawla	SW
Aman	AMN	D/Tabor	DT	Kachise	KA	Sekoru	SK
Ankober	AK	Dangla	DG	Koffele	KF	Senkata	SN
Arbaminch	AM	Dilla	DL	Konso	KN	Shambu	SH
Asaita	AS	Dm.Dolo	DMD	Kulumsa	KL	Shire	SHR
Asela	ASL	Dubti	DBT	Lalibela	LL	Shola Gebeya	SG
Assosa	ASO	Ejaji	EJ	Limugent	LG	Sirinka	SR
Awassa	AW	Enwary	EN	M.Meda	MM	Sodo	SD
Aykel	AK	Fiche	FC	M/Abaya	MAB	Wegel Tena	WT
B. Dar	BD	Filtu	FL	Maichew	MY	Woliso	WL
Bati	BA	Gambela	GM	Majete	MJ	Woreilu	WI
Bedelle	BDL	Gelemso	GL	Masha	MA	Yabello	YB
Begi	BG	Gewane	GW	Mankush	MNK	Ziway	ZW
BUI	BU	Ginir	GN	Mekele	MK		
Bullen	BL	Gimbi	GIB	Merraro	MR		
Bure	BR	Gode	GD	Metehara	MT		