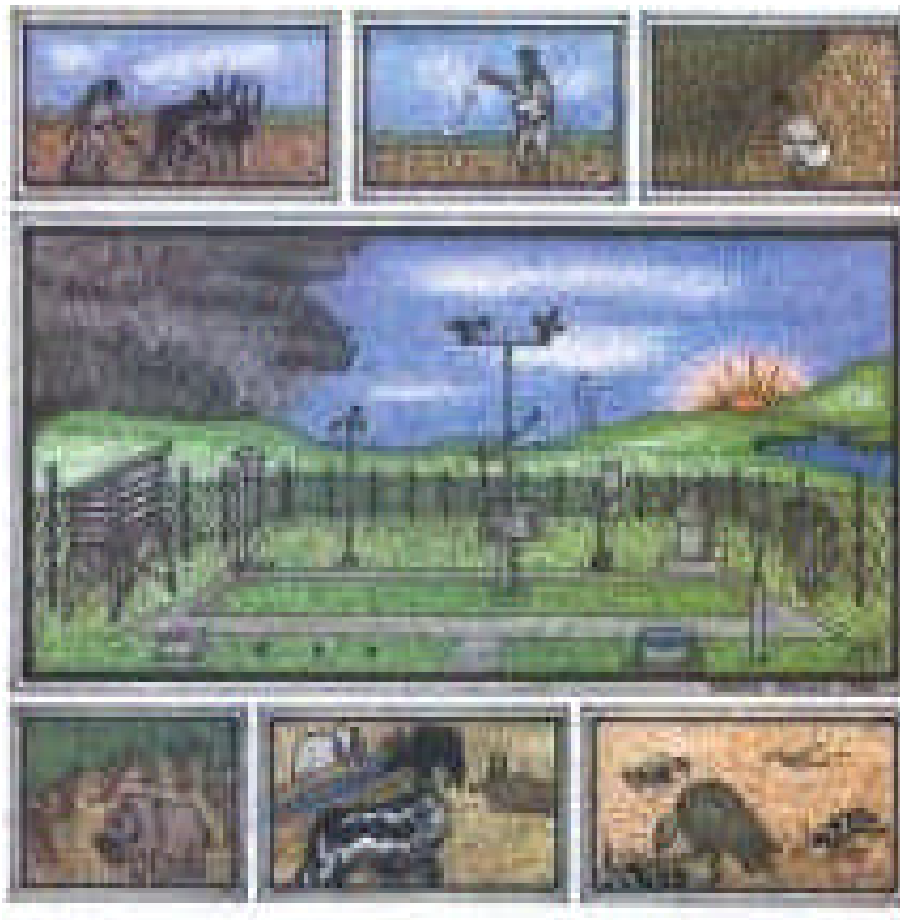


**NATIONAL METEOROLOGICAL SERVICES AGENCY
AGROMETEOROLOGICAL BULLETIN**

**MONTHLY AGROMETEOROLOGICAL BULLETIN
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FORE WARD

This Agro met Bulletin is prepared and disseminated by the National Meteorological Services Agency (NMSA). 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

APRIL 2005

During the first dekad of April 2005 the observed dry and sunny weather situation could exacerbate the persisted water stress in most parts of the country during the preceding dekad, thereby negatively affecting the crop water requirements of Belg crops and the normal sowing activities of long cycle crops in areas where sowing activities were under question like Arsi Robe, Kulumsa, Ziway, Kibre Mengist, Robe, Limu Genet, Aman, Tepi, Sekoru, Wenago, Yirga Chefe, Kochere, Bule and Sirinka. Pursuant to the crop phenological report some areas of northern SNNPR (Hosaina), western Oromiya (Alge) and eastern Amhara (Majete) reported medium field condition due to water stress. With regard to maximum air temperatures, there was a rise in extreme maximum temperature over Assayta, Gode, Metehara, Arba Minch, Dire Dawa and Dubti by 3.9, 4.1, 4.2, 4.9, 6.3 and 6.4°C, respectively during the first dekad of April. Thus this condition could increase evapo transpiration in the areas.

During the second dekad of April 2005 the observed normal to above normal rainfall over most parts of Belg growing areas including lowlands of southern Oromiya and Somali, Afar and northern Tigray could favour the existing Belg crops and it could also create conducive atmosphere for the sowing activities of maize and sorghum. Besides, it could have significant contribution for the availability of pasture and drinking water over pastoral areas and could favour sowing activities in agro pastoral areas of south and south-eastern lowlands as well. However, some areas of northern and north-eastern like Adwa, Werebahu and Bati received 46.9, 86.2 and 32.7 mm of heavy falls respectively; highlands of south Ethiopia like Hosaina recorded 38.1 and lowlands of southern and south-eastern Ethiopia like Alfaydea, Negele and Gode exhibited 61.8, 41.8 and 30 mm of heavy falls in one rainy day, respectively. Thus these conditions indicate the erratic nature of rainfall in some pocket areas. With regard to air temperature Gode, Methara, Assaita, Pawe, Dubti, Mankush and Metema recorded 38.2, 38.2, 40.0, 40.7, 41.0, 43.0 and 44.0°C extreme maximum air temperatures during the dekad under review. A rise in extreme maximum air temperatures has been observed by 3.6-4.7°C over some lowland areas like Dubti, Awassa, Methara and Asossa.

During the third dekad of April 2005 with the exception of parts of central Amhara, parts of Benishangul Gumuz, southern SNNPR and southern Oromiya most parts of the country experienced normal to above normal rainfall. As a result it is believed that the situation could favor the existing Belg crops as well as the recently sown long cycle crops like maize and sorghum. Besides it could also favour the availability of pasture and drinking water over pastoral areas. Nevertheless, due to the erratic nature of rainfall observed in some pocket areas flood damage has been observed in some areas like Jijiga, Arbaminch and Degeh Bur during the third dekad of April. Among the reporting stations Nekemte, Kulumsa, Negelle, Kachsie, Debre Zeit, Elidar, Methra, Awassa, Mirab Abaya, Robe, Kibre Mengist, Addis Ababa, Dolo Mena, Jijiga and Gelemso exhibited 31.5, 34.3, 35.7, 36.8, 37.0, 38.0, 40.7, 42.4, 49.0, 49.6, 50.0, 58.6, 60.7, 61.2 and 90.3 mm of heavy falls, respectively in one rainy day. Concerning the air temperature no significant anomaly of extreme maximum temperature has been observed over the lowlands due to the extended cloud cover over most areas.

Generally the over all moisture situation particularly observed during the second and third dekad of the month has paramount importance for season's agricultural activities and land preparation for the coming Kiremt season. Nevertheless, flood damage has been observed over some pocket areas of eastern and southern Somali (Jijiga and Degeh Bur), southeastern SNNPR (Konso). For instance Konso reported maize and sorghum crops damage (about 176 hectares) due to heavy rainfall.

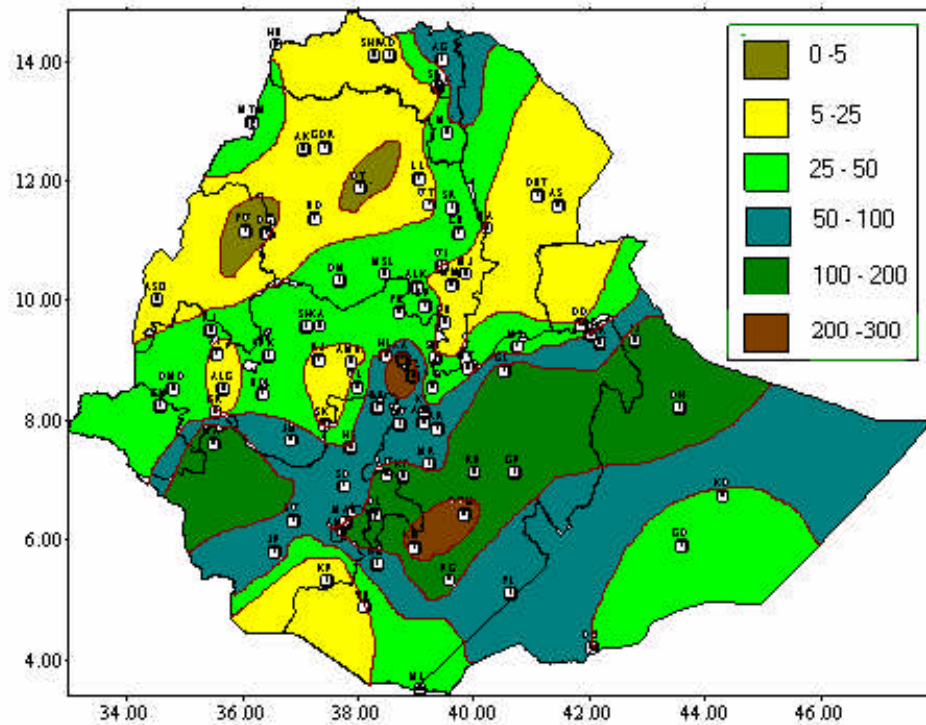


Fig 1. Rainfall distribution in mm (21-30 April, 2005)

1. WEATHER ASSESSMENT

1.1 21-30 April, 2005

1.1.1 Rainfall amount (Fig.1)

Most parts of midland and highlands of eastern Oromiya and central Somali including western and parts of eastern SNNPR exhibited greater than 100 mm of dekadal cumulative rainfall. Northeastern Tigray, parts of southern Somali, parts of central, parts of eastern and southern Oromiya including few areas of western Oromiya, few areas of southeastern Gambela, most parts of SNNPR received 50 - 100 mm of rainfall. Parts of northern Afar, South and parts of eastern Tigray, parts of eastern Amhara, most parts of western Oromiya and parts of southern SNNPR received 25 - 50 mm of rainfall. The rest parts of the country received falls less than 25 mm.

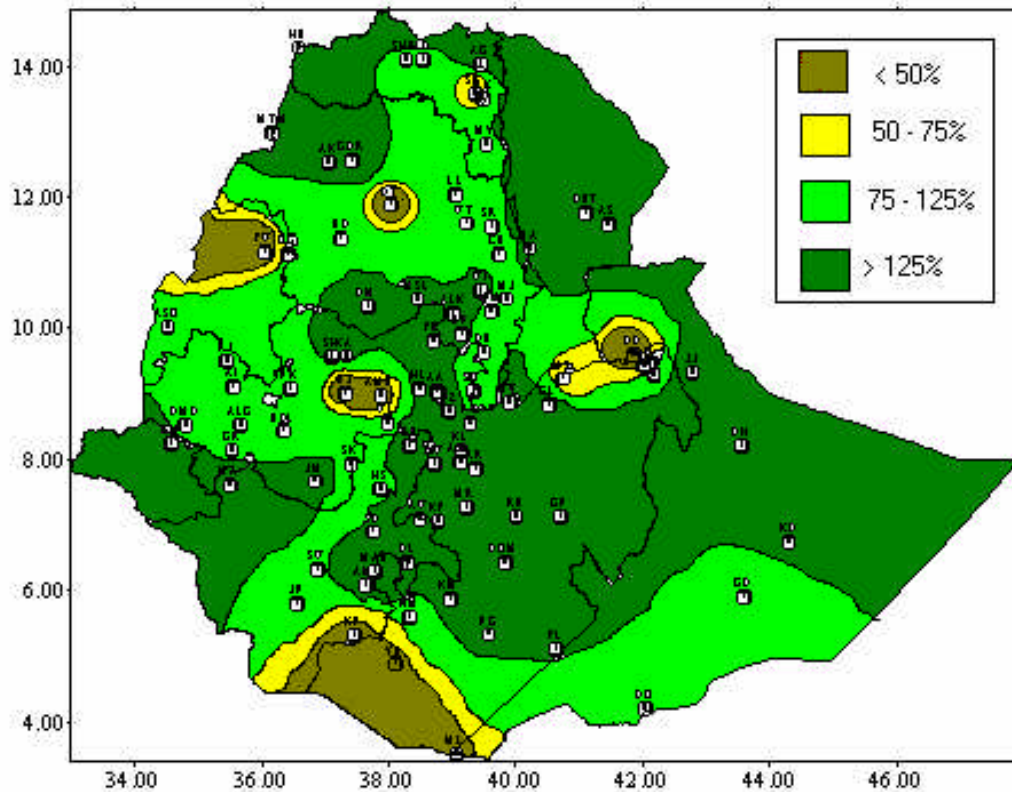


Fig. 2 Percent of normal rainfall (21-30 April, 2005)

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)

With the exception of few areas of central Amhara, northern parts of Benishangul - Gumuz, southeastern SNNPR and parts of southern Oromiya most parts of the country experienced normal to above normal rainfall.

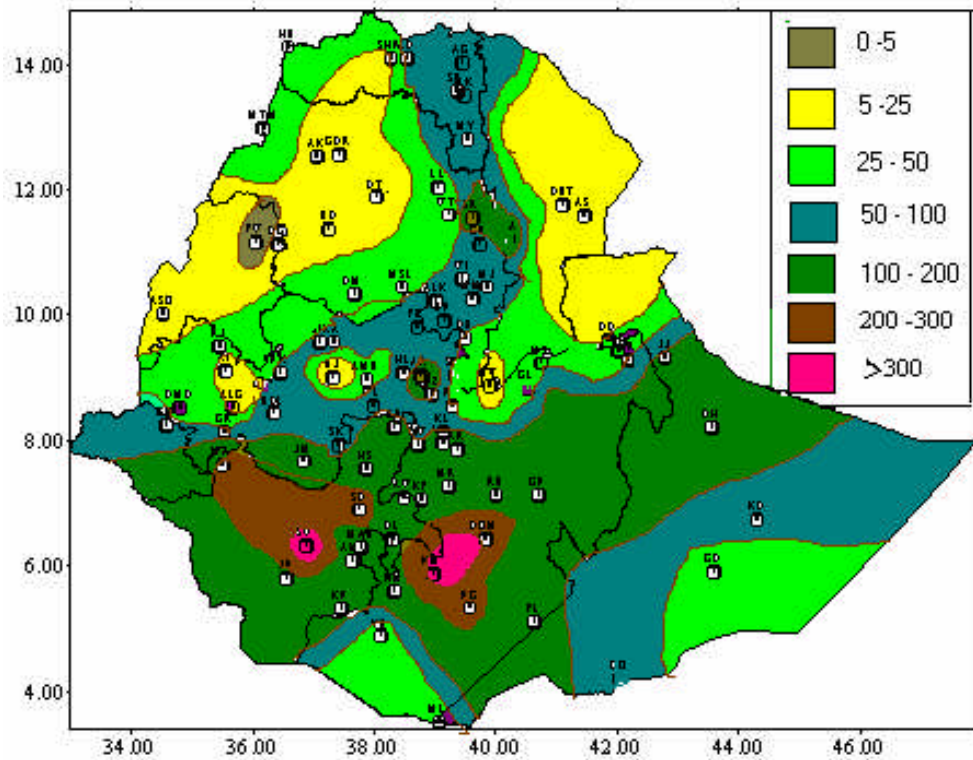


Fig. 3 Rainfall Distribution in mm for the month of April, 2005

1.2 April 2005

1.2.1 Rainfall Amount (Fig.3)

Most parts of central SNNPR, midlands of southern Oromiya received falls greater than 200 mm. Most parts of eastern, western, northern and southern SNNPR including few areas of eastern Amhara and southern half of Gambela received 100 - 200mm of rainfall. Parts of central, western and southern Oromiya, most parts of eastern Amhara, South and eastern Tigray, northern half of Gambela, northern tip of Afar and most parts of southern Somali received 50 - 100 mm of rainfall. The rest parts of the country received less than 50 mm of rainfall.

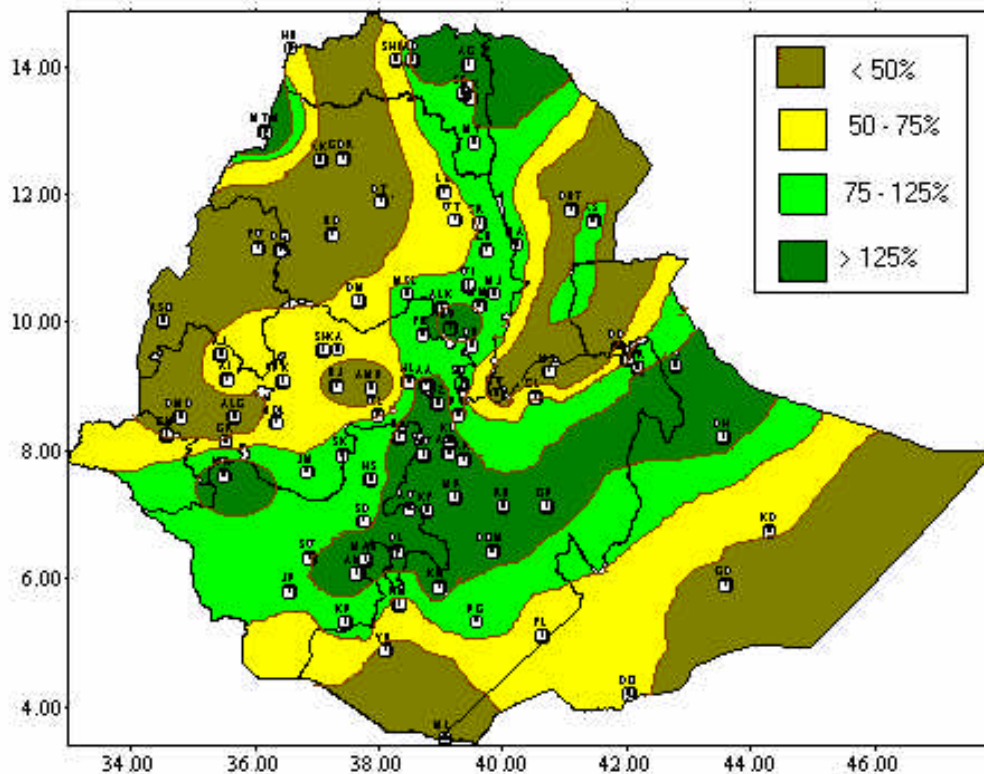


Fig. 4 Percent of Normal Rainfall for the month of April, 2005

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)

Western half of Tigray, northern and few areas of central Afar, most parts of eastern and northwestern tip of Amhara, parts of northern and central Somali, eastern, parts of central and midland of southern Oromiya, most parts of SNNPR, southern half of Gambela experienced normal to above normal rainfall. The rest of the country exhibited below normal rainfall.

1.3 TEMPERATURE ANOMALY

No significant anomaly of extreme maximum temperature has been observed over the lowlands due to the extended cloud cover over most areas.

2.WEATHER OUTLOOK

2.1 For the first dekad of May 2005

In the coming ten days, much of Tigray and Amhara, Benshangul-Gumuz, Gambella, Oromya, SNNPR and western part of Somali region will have normal to above normal Rainfall. Besides, some places of eastern Tigray and Amhara as well as eastern portion of Somali will get near normal Rainfall. Most parts of Afar are expected to get below normal rainfall however some places will have close to normal rainfall.

2.2 For the month of May 2005

As May is the last month for Belg season, systems that give favorable condition for the enhancement of rainfall activity are going to be displaced gradually. In association with this, the rainfall activity is going to be decreased from Belg growing areas. In the contrary, during Kiremt season western half of the country will get better rain in association with meteorological phenomenon. The Belg rain will continue more or less in a weekend manner over most Belg-growing areas up to mid of the month under normal condition. Hence, 150-250 mm rainfall will occur over the Belg growing areas of Oromya as well as SNNPR and western half of Oromiya regions. On the other hand, Somali, central Ethiopia and eastern half of Amhara will get 50-150 where as eastern Tigray and Afar will have in excess of 50 mm rain . During May western Amhara, Benshanul –Gumuze, Gambela, much of SNNPR as well as Oromya will have rain for 10-20 days in normal condition the remaining parts of the country will be under dry and warm, weather condition.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Generally the over all moisture situation particularly observed during the second and third dekad of the month has paramount importance for season's agricultural activities and land preparation for the coming Kiremt season. Nevertheless, flood damage has been observed over some pocket areas of eastern and southern Somali (Jijiga and Degeh Bur) including southeastern SNNPR (Konso). For instance Konso reported maize and sorghum crops damage (about 176 hectares) due to heavy rainfall.

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING MONTH

The anticipated normal cessation of Belg rain from Belg growing areas would affect Belg crops which were sown lately due to the late onset of Belg in some areas of South Tigray and eastern Amhara. On the hand the expected normal Belg rainfall would favour the remaining Belg season's agricultural activities over the rest parts of Belg growing areas of the country. On the contrary the expected better rainfall over the western half of the country would favour long cycle crops and early Meher season's agricultural activities like land preparation.

Table 1 Climatic and Agro-Climatic elements of different stations for the month of April 2005

	Stations	Region	A/ rainfall	Normal	%of Normal	ETo mm/day	Monthly ETo	Moisture status
1	Adigrat	TIGRAI	97.8	72.3	135.3	4.56	136.8	M
2	Adwa		62.2	27.1	229.5	5.7	171	MD
3	Mekele		60.3	34.5	174.8	6.66	199.8	MD
4	Michew		61.4	72.5	84.7	4.31	129.3	MD
5	Senkata		74.4	85.5	87.0	NA	NA	NA
6	Shire		11.7	26.5	44.2	6.51	195.3	VD
1	Dubti	AFAR	8.3	20.9	39.7	6.98	209.4	VD
2	Assayta		21	17.5	120.0	7.6	228	VD
1	Bahirdar	AMHARA	9.9	24	41.3	5.35	160.5	VD
2	Bati		103.9	89.9	115.6	4.36	130.8	M
3	Bullen		9.8	51	19.2	4.73	141.9	VD
4	Chagni		3.1	30.5	10.2	5.26	157.8	VD
5	Chefa		40.4	252.6	16.0	5.16	154.8	MD
6	Combolcha		66.9	98.6	67.8	4.29	128.7	M
7	D.Birhan		47.4	39.8	119.1	4.42	132.6	MD
8	D.Markos		42.7	68.1	62.7	4.59	137.7	MD
9	D.Tabor		10.3	39.5	26.1	NA	NA	NA
10	Enwary		99	20.7	478.3	5.06	151.8	M
11	Gonder		12	39.8	30.2	5.21	156.3	VD
12	Lalibela		28	53.1	52.7	4.65	139.5	D
13	M.Meda		97	52.1	186.2	NA	NA	NA
14	Majete		98	89.4	109.6	4.58	137.4	M
15	Metema		39	9.2	423.9	6.35	190.5	D
16	Mota		27.9	NA	NA	NA	NA	NA
17	S.Gebeya		51	62.3	81.9	4.27	128.1	MD
18	Sirinka		116.7	102.9	113.4	4.46	133.8	M
19	Woreilu		53.4	59.4	89.9	4.77	143.1	MD
20	Wegeltena		38	58.4	65.1	4.34	130.2	MD
1	Alge	OROMIYA	21.9	77.9	28.1	NA	NA	NA
2	Ambo		27	68.2	39.6	NA	NA	NA
3	Aira		10.7	36.4	29.4	4.49	134.7	VD
4	Alemaya		119.5	93.5	127.8	4.72	141.6	M
5	Bedelle		65.3	102.1	64.0	3.84	115.2	M
6	Begi		67	67	100.0	NA	NA	NA
7	Bui		123.3	46.5	265.2	5.15	154.5	M
8	D.Dolo		44.7	107.8	41.5	4.06	121.8	MD
9	D.Mena		298.2	199.5	149.5	4.34	130.2	H
10	D.Zeit		83	57.7	143.8	5.56	166.8	MD
11	Ejaji		16.6	75.1	22.1	NA	NA	NA
12	Fitche		69	64.5	107.0	4.16	124.8	M
13	Gelemso		1.4	155.8	0.9	4.64	139.2	VD
14	Gimbi		24.2	68.4	35.4	5.2	156	D
15	H.Mariyam		120.9	180	67.2	NA	NA	NA

16	Jimma		141.4	138.9	101.8	3.59	107.7	H
17	K.Mengist		317.4	219.4	144.7	3.66	109.8	H
18	Kachise		70	83.6	83.7	NA	NA	NA
19	Kulumsa		125.8	78.1	161.1	4.69	140.7	M
20	Masha		200.6	158.2	126.8	3.29	98.7	H
21	Meisso		71.3	157.3	45.3	5.24	157.2	MD
22	Metehara		8.1	46.8	17.3	6.43	192.9	VD
23	Nazreth		41.3	49.8	82.9	6.21	186.3	D
24	Neghele		225.3	194.5	115.8	4.88	146.4	H
25	Nedjo		39.7	66.6	59.6	4.18	125.4	MD
26	Nekemte		60.3	85.4	70.6	4.26	127.8	MD
27	Robe(Bale)		174	129.3	134.6	4.19	125.7	H
28	Sekoru		95.5	105.7	90.4	4.19	125.7	M
29	Shambu		58.3	90.5	64.4	4.11	123.3	MD
30	Yabello		30.4	138.9	21.9	NA	NA	NA
31	Zeway		100.8	70.3	143.4	5.13	153.9	M
1	D.habur	SOMALI	121.9	87	140.1	NA	NA	NA
2	Gode		32.6	73.8	44.2	NA	NA	NA
3	Jijiga		165.3	107	154.5	5.04	151.2	H
1	A.Minch	SNNPR	311.1	146.9	211.8	4.75	142.5	H
2	Awassa		156.4	103.6	151.0	4.3	129	H
3	Hosaina		147.4	139	106.0	4.03	120.9	H
4	Jinka		154.3	171	90.2	3.82	114.6	H
5	Konso		145	173.7	83.5	5.13	153.9	M
6	M.Abay		166.7	100.3	166.2	NA	NA	NA
7	Sodo		208.4	168.2	123.9	4.37	131.1	H
1	Pawe	B/GUMUZ	3	26.7	11.2	5.07	152.1	VD
2	Assossa		18.8	60	31.3	5.9	177	D
1	A.A.Obs.	A.A	160.7	93.2	172.4	NA	NA	NA
1	Diredawa	D.D	10.6	102.8	10.3	NA	NA	NA
1	Harar	Harai	94.9	105.1	90.3	4.05	121.5	M

Legend

VD	Very Dry	< 0.1
D	Dry	0.1 - 0.25
MD	Moderatly Dry	0.25 - 0.5
M	Moist	0.5 - 1
H	Humid	>1

Explanatory Note

ETo Reference Evapotranspiration(mm)

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 evapotranspiration of a disease free crop, growing under non-restricting soil conditions including soil water and fertility.

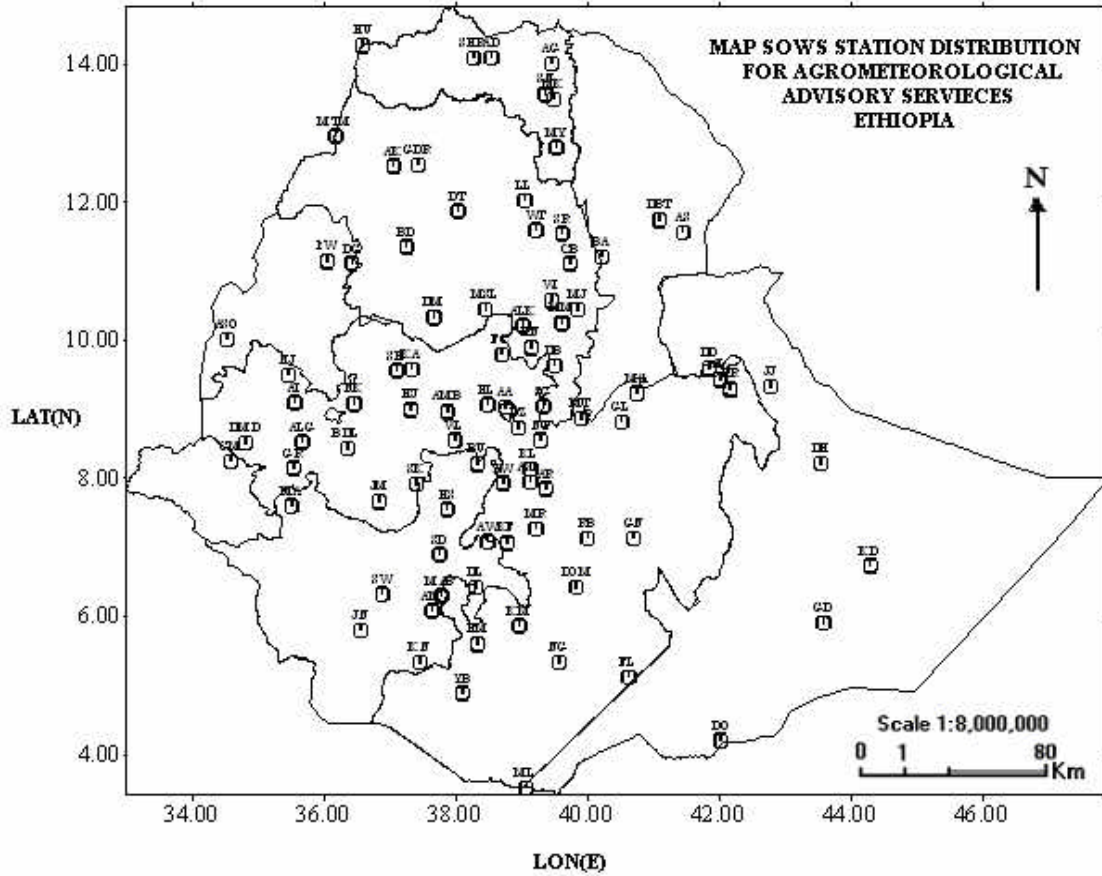
DEKAD: - First or second ten days or the remaining days of a month.

EXTREME TEMPERATURE: - The highest or the lowest temperature among the recorded maximum or minimum temperatures respectively.

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