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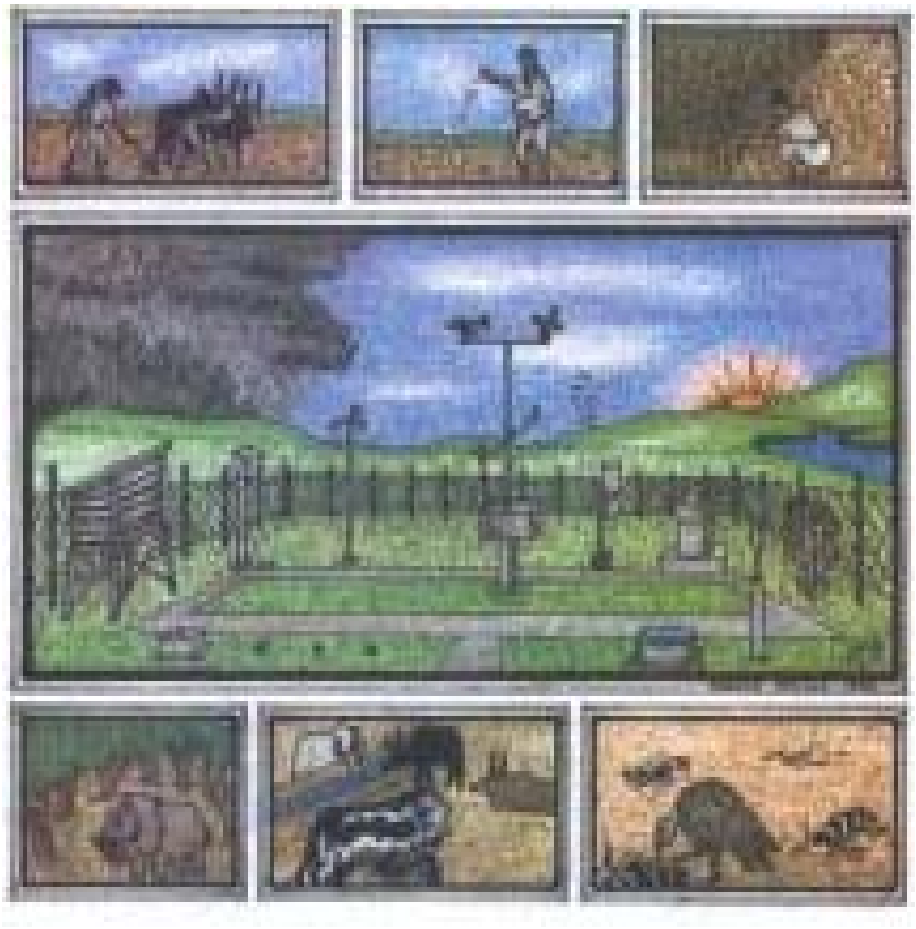


P.O.BOX 1090, ADDIS ABABA, ETHIOPIA
E.Mail: nmsa@telecom.net.et Fax 251-1-517066, Tel. 251-1-512299

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.

General Manager
NMSA
P.O.Box 1090
Tel: 51-22-99
Fax: 51-70-66
E-mail: nmsa@telecom.net.et
Addis Ababa

SUM MARY
April 2004

During the first dekad of April 2004, the observed normal to above normal rainfall over most parts of the country has favourd season's agricultural activities. Under normal circumstance, it is the time for land preparation and sowing of long cycle crops in most parts of Belg growing areas and southern half of Meher growing areas as well. Thus, it was believed that the rainfall amount and distribution observed during the first dekad of April has paramount importance for sowing of maize and sorghum in most parts of the country where sowing of those crops was under question. Besides, it could assist the availability of pasture and drinking water over pastoral areas and it could create favorable condition for sowing activities of haricot bean, wheat, maize and sorghum in agro pastoral areas of southern Oromiya and lowlands of Somali. Some areas of central, northeastern, eastern southern parts of the country exhibited heavy falls ranging from 31 – 82mm in one rainy day.

During the second dekad of April 2004, the observed abundant falls over most parts of southern half of the country including eastern and northeastern parts of Ethiopia favored season' agricultural activities such as sowing and land preparation for long cycle crops in areas where the activities are under question. Besides, it could create favorable condition for the existing crops in the fields. The observed widespread rainfall distribution could also have indispensable contribution on the availability of pasture and drinking water for pastoral areas and for sowing of Gena crops in agro-pastoral areas as well.

During the third dekad of April 2004, below normal rainfall was observed over South Tigray, most parts of eastern half of Amhara, central and southeastern Oromiya. Western Oromiya, Gambela and eastern parts of Benishangul Gumuz experienced better rainfall activity that could favour land preparation and sowing activities for long cycle crops over the areas. Some areas of western, southern, southwestern, northwestern, northeastern and eastern parts of the country exhibited heavy falls ranging from 30 – 61.5 mm of rainfall in one rainy day. For instance from the north like Maychew (47.3 mm; western parts of the country like Jima (44.3 mm) and Gambela (30.0); southwestern like Jinka (46.4 and 30.4), Sawula (30.0) and Konso (61.5); northeastern like Enewary (40.6 mm) and Ejaji (40.0 mm); southern like Yabelo (40.5 mm); northwestern like Dangila (37.0 mm) and Pawe (43.7 mm) and from eastern parts of the country like Alemaya (36.1 mm) exhibited heavy falls as indicated accordingly. This condition could result in water logging in low lying areas and soil erosion on sloppy areas. It could affect the sowing activities by washing away the newly sown seeds in areas where sowing activities are the main practices at this time of the year. In accordance with the crop phenological report, sowing of maize was under way in some areas of central Oromiya while it was at ninth leaf stage in some areas of northern SNNPR, central and western Oromiya. Sorghum was at third leaf stage in some areas of northern SNNPR. Teff was at emergence stage in highlands of southern Oromiya while at tasseling stage in some areas of eastern Amhara. Potato was at budding stage in northern parts of SNNPR. Majete reported medium crop field condition due to water stress.

Generally, the overall rainfall condition during the month of April was in a good shape in most parts of the country. Besides, as the moisture status analysis indicates most parts of the country exhibited moist to humid moisture condition (Table 1). As a result sowing of cereal crops like maize, sorghum and teff was under way in long cycle growing areas of the country. Sowing of potato was also progress in some areas of northern SNNPR during the month under review. Besides, the observed abundant rainfall over south and southeastern lowlands could favour the availability pasture and drinking water in the areas. However, the observed heavy falls particularly as of the second dekad of April in some pocket areas of western, southern, southwestern, northwestern, northeastern and eastern parts of the country resulted in crop damage in some areas of low lying areas and near river banks.

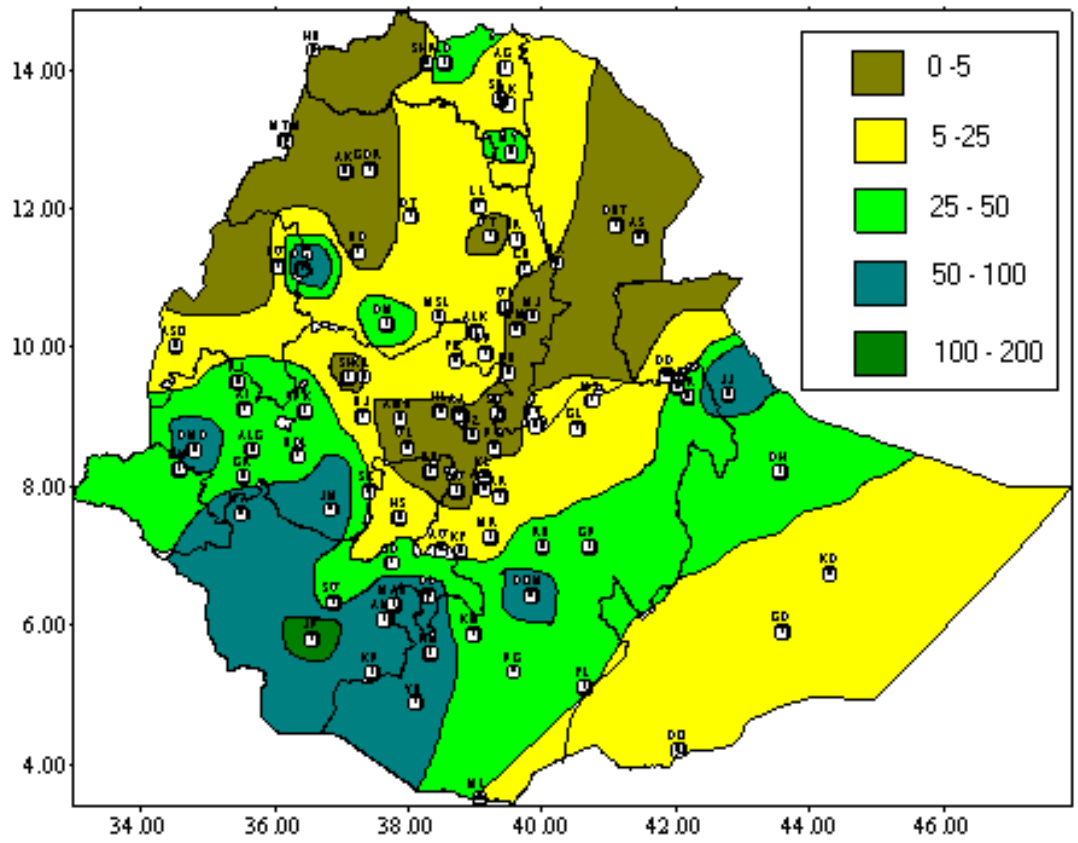


Fig 1. Rainfall distribution in mm (21- 30 April, 2004)

1. WEATHER ASSESSMENT

1.1 21- 30 April 2004

1.1.1 Rainfall amount (Fig.1)

Western Tigray, northwestern and southeastern Amhara, most parts of northern half of Benishangul Gumuz, central Oromiya, northern tip of Somali and most parts of Afar received falls in the range of 0 – 5mm.Most parts of Amhara, Tigray, southern Somali, parts of central Oromoya and parts of southern half of Benishangul Gumuz experienced 5 – 25 mm of rainfall. Pocket areas of Amhara and Tigray, parts of western, southern and eastern Oromiya, central Somali and most parts of Gambela received 25 – 50 mm of rainfall.

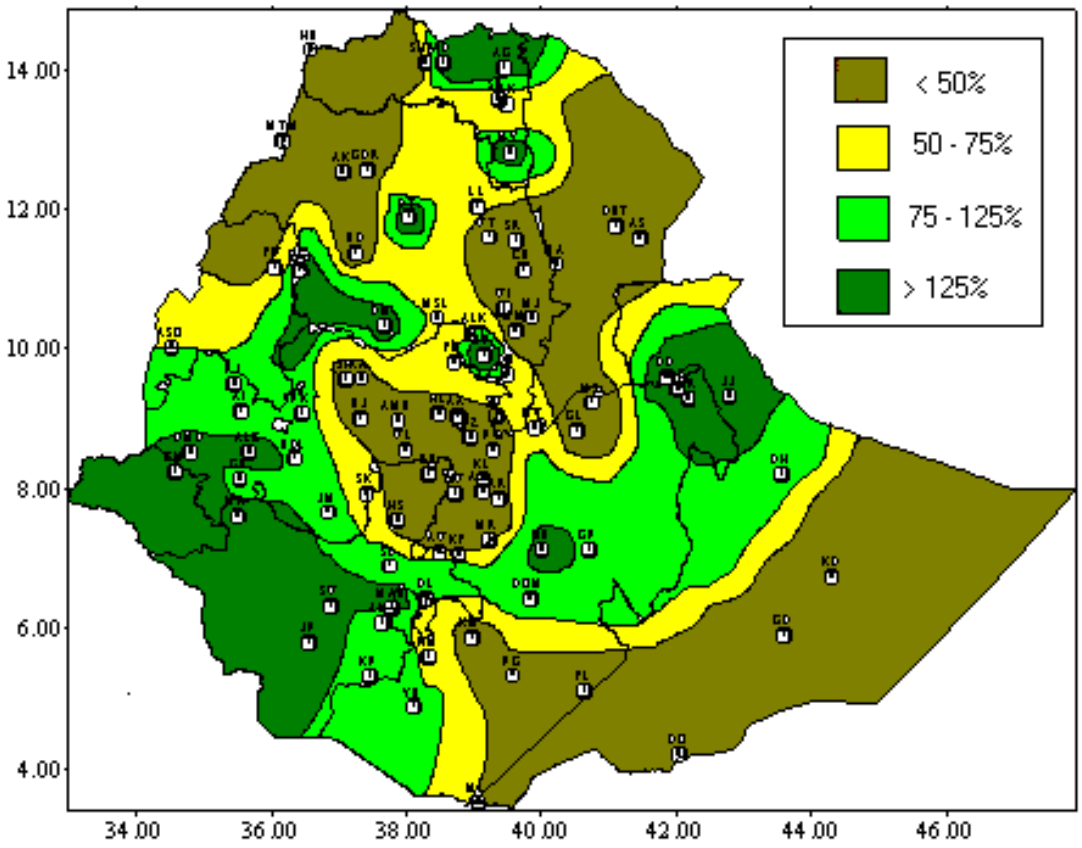


Fig. 2 Percent of normal rainfall (21- 30 April, 2004)

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)

Parts of eastern Tigray, few areas of southwestern and pocket areas of central and southern Amhara, western, parts of southern and eastern Oromiya, Gambela, eastern parts of Benishangul Gumuz, parts of northern Somali and most parts of SNNPR exhibited normal to above normal rainfall. The rest of the country received below to much below normal rainfall.

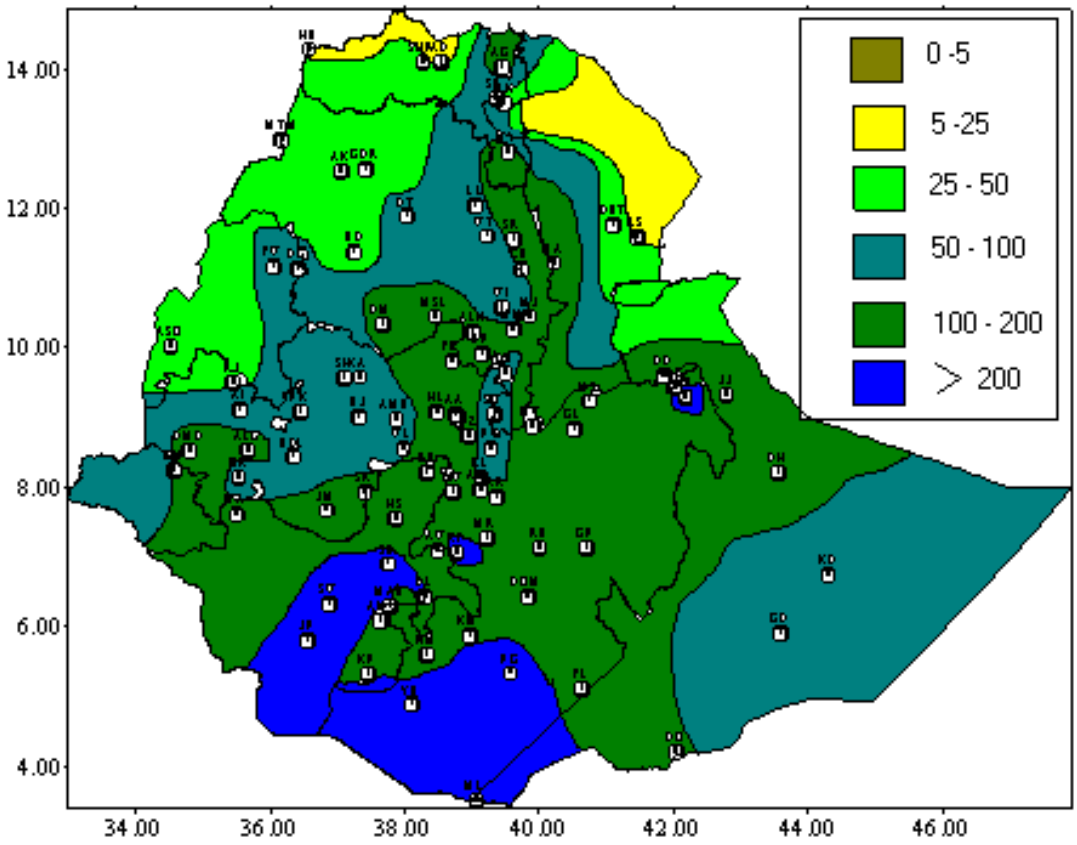


Fig. 3 Rainfall Distribution in mm for the month of April 2004

1.2 April 2004

1.2.1 Rainfall Amount (Fig.3)

Parts of SNNPR and southern Oromya including southeastern margin of Somali received falls greater than 100 mm. Southeastern tip of Tigray, Parts of western and southern Afar, parts of western Amhara, most parts of central and eastern Oromiya, western, northern and eastern SNNPR, eastern Gambela, parts of southern and central Simali experienced falls ranging from 50 – 100 mm. The rest of the country received below 50 mm monthly rainfall during the month under review.

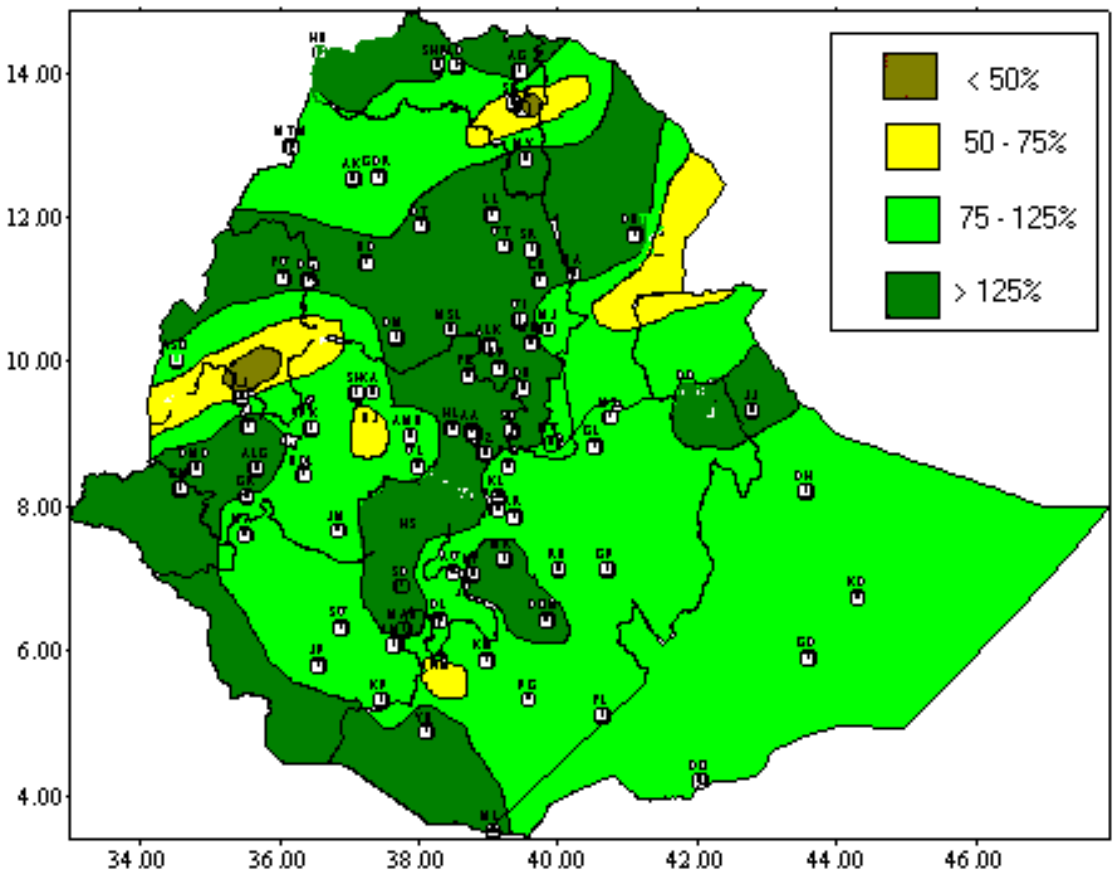


Fig. 4 Percent of Normal Rainfall for the month of April 2004

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)

With the exception of pocket areas eastern Tigray, Afar and western Oromiya including parts of southern Benishangul Gumuz the rest parts of the country received normal to above normal rainfall.

1.3 TEMPERATURE ANOMALY

There was no significant temperature anomaly during the month under review.

2. WEATHER OUTLOOK

2.1 For the first dekad of May 2004

In the coming ten days much of Oromiya, SNNPR and Gambela are anticipated to get normal to above normal rains. In addition, some parts of Tigray, Amhara, Benishngul Gumuz as well as Somali and parts of Afar will receive near normal rains. In addition, heavy rain showers that induce flash flooding are likely to occur over pocket places of Oromiya eastern Amhara and SNNPR region.

2.1 For the month of May 2004

In the coming month, there are enhanced probabilities for normal to above normal rains across much of Oromiya, SNNPR, Somali and Belg growing portions of Amhara and Tigray regions. Besides, near normal rains will prevail over Afar, Gambela, Benishangul-Gumuz and western parts of Tigray and Amhara. However, places of northern half of the country are likely to receive below normal rains. In addition, heavy rain showers are highly likely to occur at some places of SNNPR, Oromiya and Amhara regions.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Generally, the overall rainfall condition during the month of April was in a good shape in most parts of the country. Besides, as the moisture status analysis indicates most parts of the country exhibited moist to humid moisture condition (Table 1). As a result sowing of cereal crops like maize, sorghum and teff was under way in long cycle growing areas of the country. Sowing of potato was also in progress in some areas of northern SNNPR during the month under review. Besides, the observed abundant rainfall over south and southeastern lowlands could favour the availability of pasture and drinking water in the areas. However, the observed heavy falls particularly as of the second dekad of April in some pocket areas of western, southern, southwestern, northwestern, northeastern and eastern parts of the country resulted in crop damage in some areas of low lying areas and near river banks.

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING DEKAD

The anticipated normal to above normal rainfall over much of Oromiya, SNNPR, Somali and Belg growing areas of Amhara and Tigray would benefit the recently sown long cycle crops and the crops which are at early vegetative stage and reproductive stage in some areas. The expected near normal rains over most parts of Benishangul - Gumuz, western portion of Tigray and Amhara would create favorable condition for land preparation for the coming Meher season. Therefore, proper action should be under taken in order to exploit the expected favorable situation. The expected heavy falls over some areas of SNNPR, Oromiya and Amhara would result in soil erosion on sloppy crop fields, water logging on low lying crop fields and flooding near riverbanks. Thus, the concerned personnel should take proper precaution ahead of time in order to mitigate the effect of excess water.

Table 1 Climatic and Agro-Climatic elements of different stations for the month of April 2004

	Stations	Region	A/ rainfall	Normal	%of Normal	Eto mm/day	Monthly Eto	M-status
1	Adigrat	TIGRAI	100	71.17	139.5	4.6	136.8	M
2	Adwa		24.4	27.1	90.0	5.1	152.1	D
3	Mekele		20.5	44.7	45.4	6.2	185.7	D
4	Michew		142.5	79.7	178.8	4.2	124.5	H
5	Senkata		85.4	94.6	90.3	5.1	151.5	M
6	Shire		33.2	26.5	125.3	5.9	176.1	D
1	Assayta	AFAR	10.7	19.4	55.2	NA	NA	NA
2	Dubti		62.9	20.1	312.9	NA	NA	NA
1	Bahirdar	AMHARA	39.2	23.1	169.7	3.9	117.9	MD
2	Bati		147.4	89.9	164.0	4.3	129	H
3	Ceffa		137.5	252.6	54.4	NA	NA	NA
4	Combolcha		127.5	98.6	129.3	3.8	113.7	H
5	D.Birhan		85.5	44	194.3	4.2	127.2	M
6	D.Markos		120.3	67.5	178.2	4.4	130.8	M
7	Dangla		83.5	26.5	315.1	4.4	132	M
8	D.Tabor		75.5	38.1	198.2	NA	NA	NA
9	Enwary		109.5	23.5	466.0	4.6	138	M
10	Gonder		37.6	37.8	99.5	5.3	158.7	D
11	M.Meda		100	52.1	191.9	4.0	120.0	MD
12	Majete		97.7	89.4	109.3	4.1	123.9	M
13	S.Gebeya		96.3	68.5	140.6	NA	NA	NA
14	Sirinka		119.4	110.8	107.8	4.3	127.8	M
15	Wegeltena		97.2	56.1	173.3	4.2	124.8	M
16	Wereilu		NA	NA	NA	NA	NA	NA
1	Abomssa	OROMIYA	104.4	74.8	139.6	NA	NA	NA
2	Aira		67.1	29.8	225.2	4.4	132.3	MD
3	Alemaya		163.5	95.8	170.7	4.0	120.6	H
4	Alge		106	73.8	143.6	NA	NA	NA
5	Arsi Robe		114.9	158.6	72.4	3.5	104.1	H
6	Assela		100.7	110.8	90.9	NA	NA	NA
7	Bedelle		59.7	102.1	58.5	3.9	117.9	MD
8	Bui		177.1	47	381	NA	NA	NA
9	D.Dollo		180.6	96.2	187.7	NA	NA	NA
10	D.Mena		178.3	132.1	135.0	4.0	119.7	H
11	D.Zeit		120.8	59.1	204.4	3.4	102.9	H
12	Ejaji		47.7	75.1	63.5	4.6	138	MD
13	Fitche		123.7	70	176.7	3.9	116.7	H
14	Gelemso		148.4	132.8	111.7	4.2	125.1	H
15	Gimbi		53.7	62.8	85.5	5.6	167.1	MD
16	Gore		84.1	124	67.8	3.2	96.9	M
17	Jimma		130.9	139.6	93.8	2.9	86.7	H
18	Kachise		108.1	52.7	205.1	NA	NA	NA
19	K.Mengist		178.7	226	79.1	3.8	112.5	H
20	Koffele		238.9	151	158.2	3.3	99.9	H

21	Kulumsa		83.9	80.4	104.4	3.9	115.5	M
22	Meiso		125.1	105.7	118.4	4.9	146.4	M
23	Metehara		142.4	46.1	308.9	5.2	154.5	M
24	Nazreth		53.1	55.7	95.3	5.2	156.6	MD
25	Neghele		225.2	205.1	109.8	3.8	113.1	H
26	Nedjo		30.9	66.8	46.3	4.2	127.2	D
27	Nekemte		76.8	88.2	87.1	4.1	122.4	M
28	Robe(Bale)		109.8	122.2	89.9	3.7	111.3	M
29	Sekoru		149.2	97.8	152.6	3.6	109.2	H
30	Shambu		96.9	105.1	92.2	5.1	153	M
31	Woliso		93.4	83	112.5	3.3	98.7	M
32	Yabello		298.9	148.1	201.8	3.9	115.8	H
33	Zeway		106.3	70.4	151.0	4.5	133.8	M
1	Gode	SOMALI	61.7	78.1	79.0	5.5	165.3	MD
2	Jijiga		191.1	105.8	180.6	4.7	142.2	H
1	M/Abaya		216.9	88.9	244.0	NA	NA	NA
2	A.Minch	SNNPR	136.1	132.2	103.0	4.0	121.2	H
3	Awassa		83.3	102.3	81.4	3.7	110.7	M
4	Dilla		NA	NA	NA	NA	NA	NA
5	Hosaina		167	133.9	124.7	3.6	108	H
6	Jinka		201.9	171.6	117.7	3.3	98.1	H
7	Konso		163.3	136.7	119.5	4.3	129.9	H
8	Masha		153.2	146.6	104.5	3.2	96	H
9	Sawla		244	198.8	122.7	NA	NA	NA
10	Sodo		272.2	168.2	162.2	3.6	108.9	H
1	Gambela	GAMBELA	97	31.9	304.1	NA	NA	NA
1	Pawe	B/GUMUZ	83	24.1	344.4	4.6	137.1	M
2	Assosa		36.2	61.3	59.1	5.4	162.9	D
1	A.A.Obs.	A.A	133.5	93.2	143.2	3.4	100.8	H
1	Diredawa	D.D	116.8	106.6	109.6	5.1	152.4	M
1	Harar	Harai	233.8	161.3	144.9	3.6	108.6	H

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

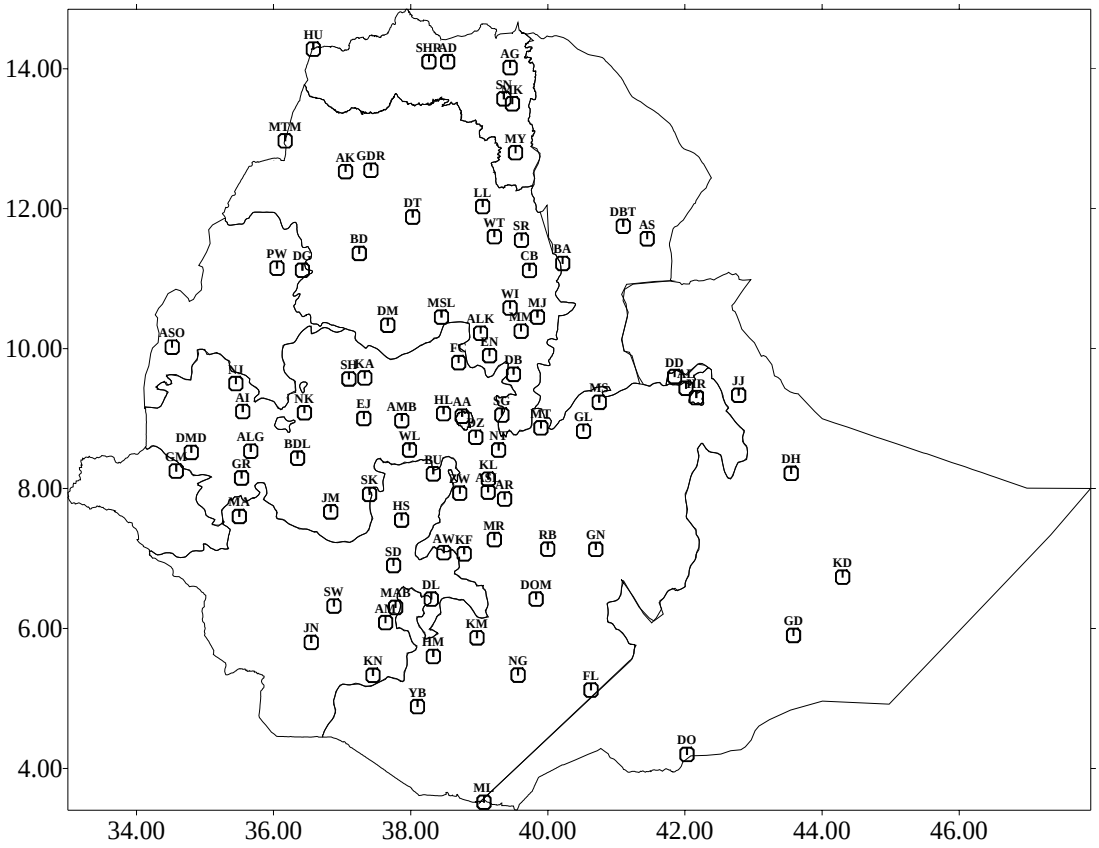
DEKAD: - First or second ten days or the remaining days of a month.

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.



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Asela	ASL
Assosa	ASO
Awassa	AW
Aykel	AK
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BUI	BU
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Dangla	DG
Dilla	DL
Dm.Dolo	DMD
Dubti	DBT
Ejaji	EJ
Enwary	EN
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Pawe	PW
Robe	RB
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Sekoru	SK
Senkata	SN
Shambu	SH
Shire	SHR
Shola Gebeya	SG
Sirinka	SR
Sodo	SD
Wegel Tena	WT
Woliso	WL
Woreilu	WI
Yabello	YB
Ziway	ZW