

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.

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SUMMARY

JUNE 2007

During the first dekad of June, normal to above normal rainfall has been observed over most parts of Tigray, Benshangul-Gumuz, Gambala, and SNNPR much of Oromia and Northern Somali. Eastern and central Amhara and the rest parts south and central and southern Somali and Afar have been exhibited below normal rain fall. The Intensification of rainfall distribution was very strong over some areas of Benshangul-Gumuz, western Oromia and SNNPR compare to the rest parts of the country. As a result, most part of western parts of the country exhibited heavy rainfall within the range of (30-82.6) mm in one rainy days. To mention some station observed above 40 mm of rainfall Chagni, Shre, Assosa, and Aira recorded 82.6, 56.0, 50.0 And 45.0 mm in one rainy days respectively. This situation has a positive contribution for the ongoing season's Agricultural activities like land preparation and sowing activities and the crops, which were at early vegetative stage. Regarding to adverse condition, Bedele, reported crop (sorghum) damage Pawe and Shaura reported Perennial crops (Tree) damage and Aykel reported damage on crops (maize) and vegetable (potato) lands due to heavy fall. Besides, the observed extreme maximum temperature over some areas of Afar, Dubti, Semera and Assayta could have a negative Impact on livestock. With regard to extreme maximum temperature Semera, Assayta, Dubti, Elidar, Gambela, Methara Metema, ShewaRobit, DireDawa, Cheffa, Mytesemrie, Mankush, Meisso, and Gode exhibited extreme maximum temperature as high as 47.0, 44.6, 45.0, 44.5, 38.5, 38.5, 38.3, 38.2, 37.4, 36.0, 35.5, 35.3, 35.2 and 35.0 °C respectively. Thus this situation would have a negative impact for normal growth and development of plants.

During the second dekad of June 2007, with the exception of Afar, some areas of northwestern and southeastern Amhara, eastern Oromia, central and southeastern Somali, and some areas of Benshangul-Gumuz, most parts of the country exhibited normal to above normal rainfall condition. This situation could have a positive contribution for the ongoing Meher agricultural activities and for water requirement of long and short cycle crops over western parts of the country. Moreover it could create conducive condition for the areas, which have not sown their crops before due to moisture stress. However, some areas recorded heavy fall ranging from 42-69.3 in one rainy day. The recorded stations are Pawe, Adele, Ziway, Bilate, Gonder, Nekemte and Awassa recorded 42.2, 43.1, 44.2, 44.7, 48.1, 49.1 and 69.3 mm in one rainy day respectively. As a result of this some areas reported crop damage due to heavy fall. For instance Arfidae and Sawla reported crop damage on harvested teff, sorghum and maize crops; Pawe and DebreTabor reported damage on crops, which are found at early vegetative stage in the areas. Moreover, Jinka reported crop damage due to heavy fall and livestock like goats, sheep, cows and oxen has washed away by floods.

During the third dekad of June the kiremt rainfall intensified over the areas of western half of the country, central Ethiopia and northeastern parts of the country, which started season's rainfall activities earlier. As a result, heavy fall ranging from 30-104mm recorded on the aforementioned areas. This rainfall situation could favor the ongoing seasons agricultural activities like land preparation and sowing activities and for the existing crops which are at different phonological stages. Besides, it would also favor for the availability of pasture and drinking water in pastoral and agro pastoral areas which are found in northeastern parts of the country. More over, the observed small up to average rainfall over eastern Ethiopia could favor for the availability of pasture and drinking water for pastoral and agro pastoral areas. Among the reporting stations, Nekemete, Aykel, Bedele, Chagni, DebreTabor, Ejaji, Gimbi, Hosaina, Kachise, Mankush, Metema, Pawe, Sekoru, Senkata, Shambu, BahirDar, Debre Zeit, Dire Dawa, Ambo, Arjo and Ayou recorded 45.7, 56.8, 40, 46, 34.3, 104.4, 35.9, 42.3, 51.2, 49.2, 98.1, 59.5, 40, 44.6, 32.3, 43.2, 38.1, 36.3, 34.7, 31.2 and 75 mm in one rainy day, respectively.

Generally during the month of June, with the exception of eastern and southeastern Somali, pocket areas of southern and western Oromia and few areas of southern Afar, the rest parts of the country received normal to above normal rainfall. Thus, this rainfall situation could have significant contribution for sowing activities of crops like wheat, barely and for the existing crops which are at different phenological stages found in areas like central Ethiopia western and highlands of Arsi and Bale zone. However, among the reporting station about 29-30 stations recorded heavy fall ranging from 30-104.0mm. To mention rainfall above 50 mm, Kachise, Shire, Aykel, Pawe, Awassa, Ayou, Chagni, Metema, Ejaji, received rainfall 51.2, 56.0, 56.8, 59.5, 69.3, 75.0, 82.6, 98.1, and 104.4mm of rainfall in one rainy day respectively. Hence this situation resulted in crop damage in some western and central Ethiopia to mention them, Bedele reported Damage on Maize and Sorghum crop field, Pawe and Shawra exhibited damage on trees, Aykel reported damage on maize and Potato crop field, Konso reported Damage on the ongoing harvested crops, Arfidaa reported damage on teff and sorghum which are at ripeness stage, Pawe and Debre Tabor reported damage on crops which are at early vegetative stage and Jinka reported damage on crops and Livestock and sawla reported damage on maize crops due to heavy fall.

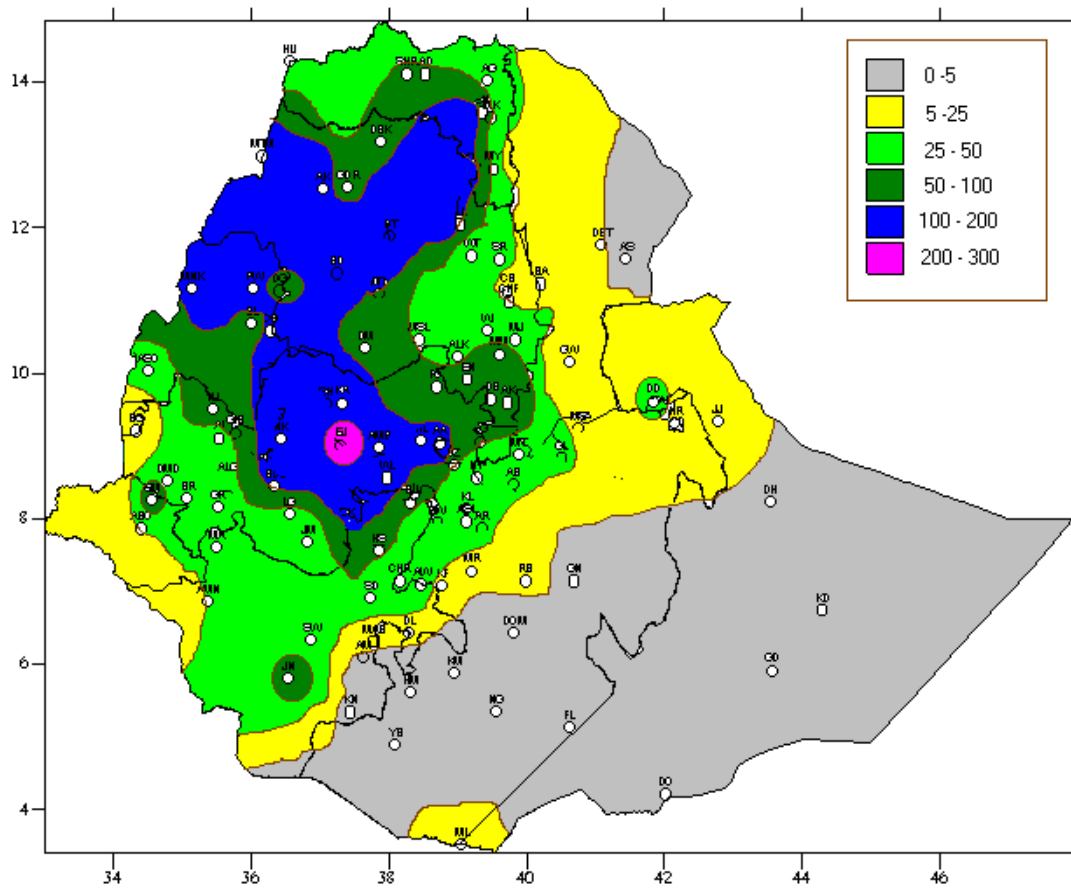


Fig 1. Rainfall distribution in mm (21-30 June, 2007)

1. WEATHER ASSESSMENT

1.1 (21- 30 June, 2007)

1.1.1 Rainfall amount (Fig.1)

Only pocket area of central Oromia received 200-300mm rainfall. Some parts of central and western Oromia, northern and western Beshangul-Gumuz, western, southern and northern Amhara and tip of southern Tigray exhibited 100-200mm rainfall. Some areas of central, northern and western Oromia, southern and western Benshangul-Gumuz, southern, northern and eastern Amhara, northern Tigray, some part of northern and pocket area of southern SNNPR and pocket area of northern Gambela experienced 50-100mm rainfall. Some parts of southern, eastern and western Oromia, western Benshangul-Gumuz, southern and eastern Amhara, eastern, northern and western Tigray, northeastern Gambela, pocket area of northern Somali and most part of SNNPR received 25-50mm rainfall. Some parts of southern, eastern tip of western Oromia, western and southern Gambela, western and southeastern SNNPR, southern Somali and most part of Afar experienced 5-25mm rainfall. The rest parts of the country exhibited little or no rainfall.

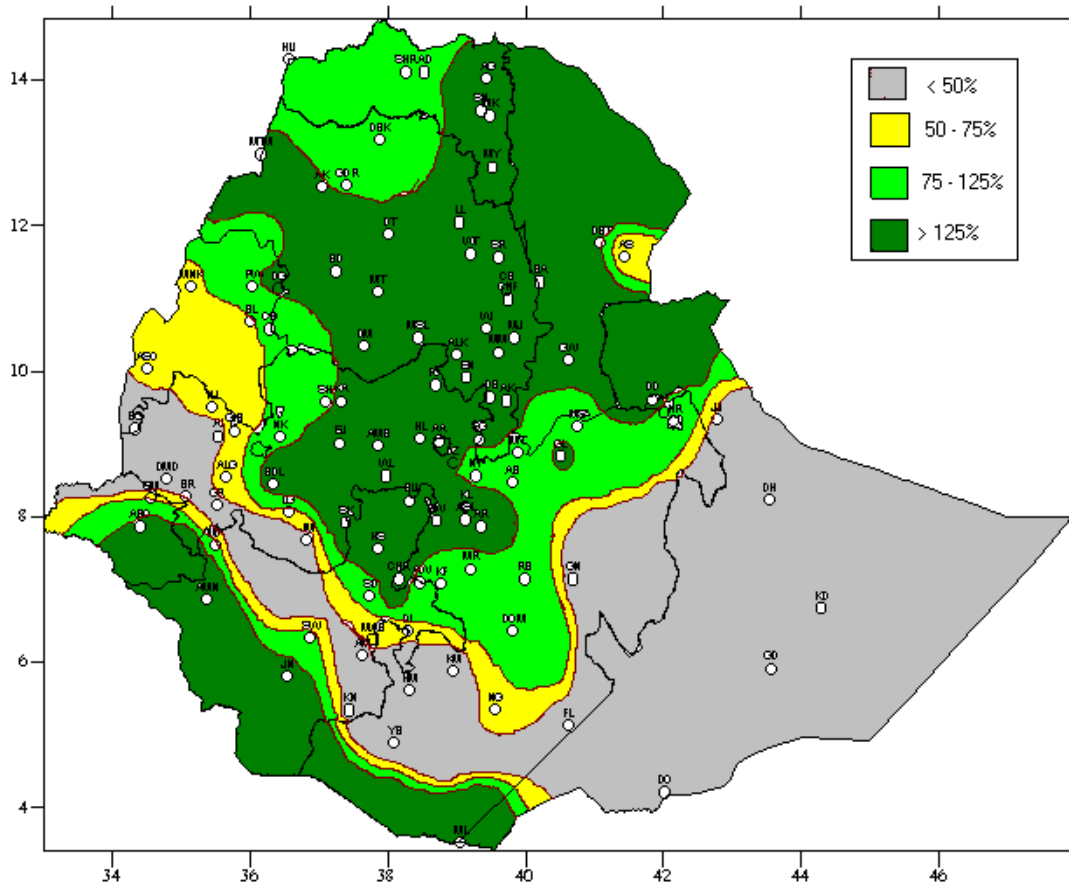


Fig. 2 Percent of normal rainfall distribution (21-30 June, 2007)

Explanatory notes for the Legend
 < 50%-Much below normal
 50-75%-Below normal
 75-125%- Normal
 > 125% - Above normal

1.1.1 Rainfall Anomaly (Fig. 2)

Some parts of western, eastern and southern Oromia, northern and eastern SNNPR, western and southern Beshangul-Gumuz, western and northern Gambela, tip of eastern Afar and most part of Somali received below normal to much below normal rainfall. The rest parts of the country exhibited normal to above normal rainfall.

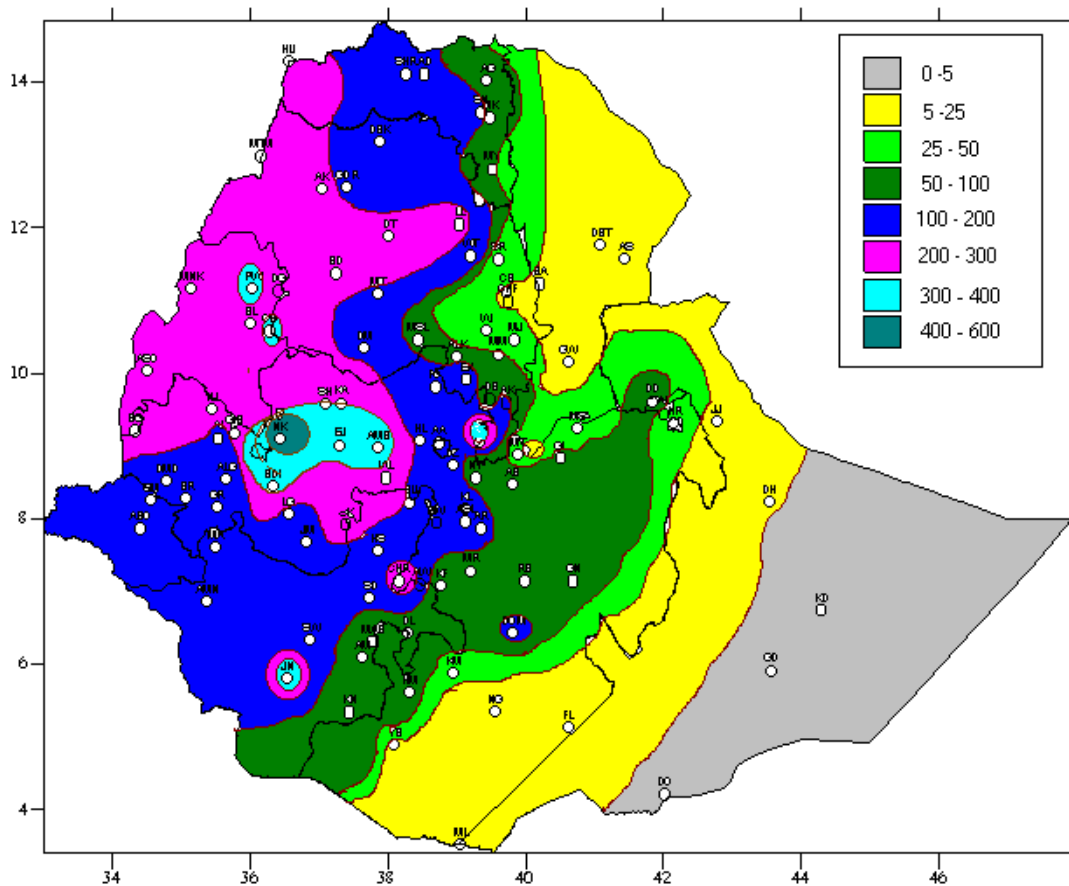


Fig. 3 Rainfall distribution in mm for the month of June 2007

1.2 June 2007

1.2.1 Rainfall distribution (Fig.3)

Only pocket area central Oromia received 400-600mm rainfall. Pocket areas of central and western Oromia, pocket areas of eastern Beshangul-Gumuz and southern SNNPR exhibited 300-400mm rainfall. Most part of Beshangul-Gumuz, some part of western and pocket area of central Oromia, some parts of southern and western Amhara and western Tigray and pocket areas of eastern and southern SNNPR experienced 200-300mm rainfall. All part of Gambela, some parts of western and northern SNNPR, western, central and eastern Oromia, southern, eastern and northern Amhara and south- northern Tigray received 100-200mm rainfall. Some parts of southeastern SNNPR, southern and eastern Oromia, eastern Amhara and eastern Tigray exhibited 50-100mm rainfall. Some parts of southern and eastern Oromia, eastern Amhara, western Afar and northern Somali experienced 25-50mm rainfall. Some parts of southern and eastern Oromia, western and northern Somali and northeastern, eastern and southern Afar received 5-25mm rainfall. The rest parts of the country exhibited little or no rainfall

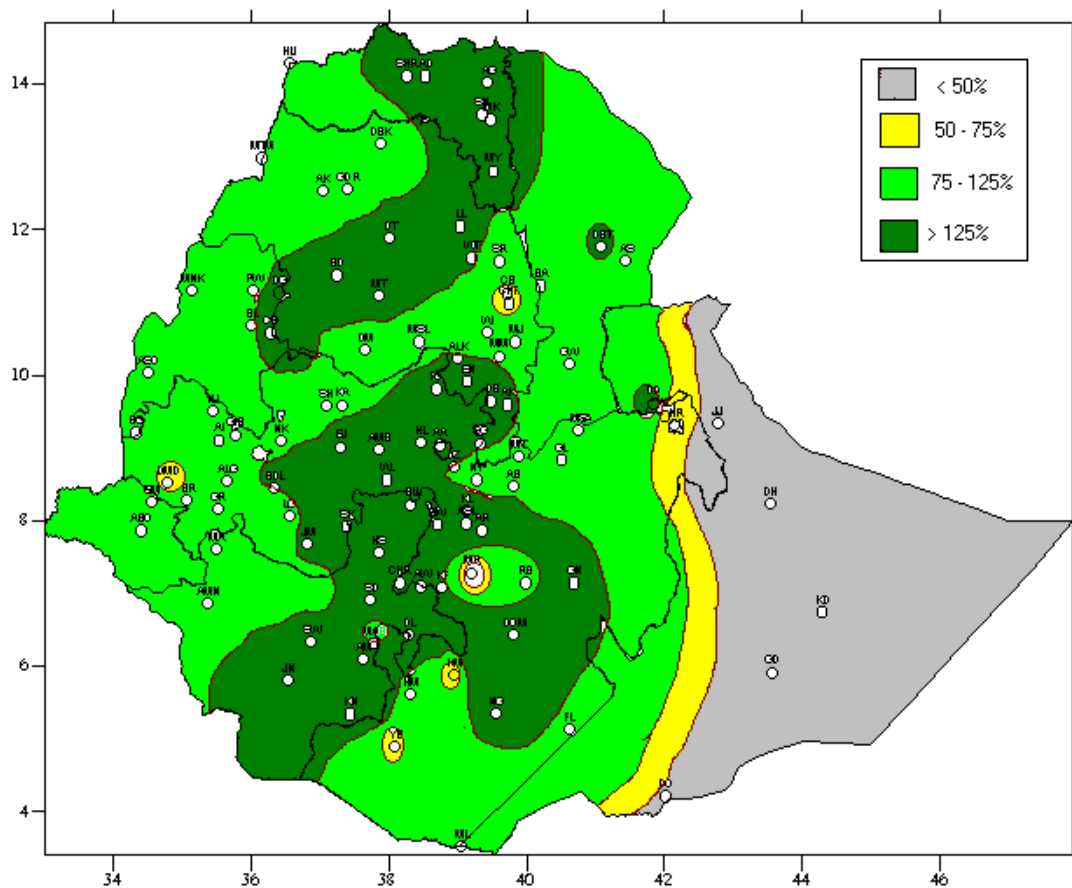


Fig. 4 Percent of Normal Rainfall distribution for the month of June 2007

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 part of Somali, pocket areas of northern and western Oromia and pocket area of eastern Amhara received below normal to much below normal rainfall. The rest parts of the country exhibited normal to above normal rainfall.

1.3 TEMPERATURE ANOMALY

Some areas recorded extreme maximum temperature within the range of (35- 47.0⁰ C) Melissa, Monkish, Metamora, Chufa, Wiredraw, Sheba Orbit, Matte, Mother, Gamble, Elder, Cassata, Debit, and Samara, exhibited extreme maximum temperature as high as 35.2, 35.3, 35.5, 36.0, 37.4, 38.2, 38.3, 38.5, 39.9, 44.5, 44.6, 45.0, and 47.0⁰ C respectively during the month of June. This situation would have a negative impact for normal growth and development of plants.

2. WEATHER OUTLOOK

2.1 For the first dekad of July 2007

For the coming tendays, the seasonal rain-bearing systems are expected to strengthen over western half and central parts of the country. In general, Tigray, western and central Amhara, Benshangul- Gumuz, western and central Oromia as well as northern sections of SNNPR will have normal to above normal rainfall. Meanwhile, some of the aforementioned areas are likely to have heavy falls, Afar, eastern Oromia, northern Somali, DireDawa, Harari and southern Ethiopia highlands will get near normal rainfall. Southern and southeastern Ethiopia will experienced dry weather conditions.

2.1 For the month of July 2007

For the upcoming month, the Kiremt rain producing systems are expected to be conducive for much of seasonal rain benefiting areas. In line with this, the rainfall activity likely to continue in well organized manner. Hence, western tigray, western and central Amhara, western and central Oromia, Gambela, much of SNNPR, Benshangul-Gumuz and central Ethiopia will get normal to above normal rainfall. In addition , eastern Tigray, eastern Amhara, eastern Oromia, DireDawa, Harari, northern Somali, southern Oromia highlands and Afar will have near normal rainfall. On the other hand, southern and southeastern lowlands will be under partly cloudy weather conditions.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Generally during the month of June, with the exception of eastern and southeastern Somali, pocket areas of southern and western Oromia and few areas of southern Afar, the rest parts of the country received normal to above normal rainfall. Thus, this rainfall situation could have significant contribution for sowing activities of crops like wheat, barely and for the existing crops which are at different phenological stages found in areas like central Ethiopia western and highlands of Arsi and Bale zone. How ever, among the reporting station about 29-30 stations recorded heavy fall ranging from 30-104.0mm. To mention rainfall above 50 mm, Kachise, Shire, Aykel, Pawe, Awassa, Ayou, Chagni, Metema, Ejaji, received rainfall 51.2, 56.0 ,56.8, 59.5, 69.3, 75.0, 82.6 ,98.1,and 104.4mm of rainfall in one rainy day respectively. Hence this situation resulted in crop damage in some western and central Ethiopia to mention them, Bedele reported Damage on Maize and Sorghum crop field, Pawe and Shawra exhibited damage on trees, Aykel reported damage on maize and Potato crop field, Konso reported Damage on the ongoing harvested crops, Arfidae reported damage on teff and sorghum which are at ripeness stage, Pawe and Debre Tabor reported damage on crops which are at early vegetative stage and Jinka reported damage on crops and Livestock and sawla reported damage on maize crops due to heavy fall. Pursuant to crop phenological report, maize was at flowering and tassling stage in some areas of western (Chira, Bedelle) respectively while at ninth leaf stage in some areas of central (Zeway), eastern (Gelemso) while at emergence stage in some areas of western (Chagni). Sowing activities of teff was underway in some areas of central (Kulumsa, Ziway). Sorghum was at tillering stage in some areas of western (Chira). Peas was at emergence and sowing activities of pepper was underway in some areas of western (Ayou).

3.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH

The anticipated normal to above normal rainfall over some areas of western Tigray, central Amhara, western and central Oromia , Gambela, much of SNNPR, Benshangul- Gumuz, and central Ethiopia would favor the ongoing season's agricultural activities. It also has a positive contribution to satisfy crop water requirement for the existing crops which are at different crop phenological stages. It would also favor the ongoing sowing activities of long cycle crops and cereals over central like Kulumsa, Kofele, Zeway, Adama, Woliso, Ambo, and Tigray like Adwa, western like Nekemte Gimbi. On the contrary, the anticipated near normal rainfall over eastern Tigray, and Amhara, eastern Oromia, DireDawa, Harari, highlands of southern Oromia, will have indispensable contribution for land preparation and sowing activities . Besides, it also avails for the pasture and drinking water over northern Somali and Afar. In general, the expected heavy rainfall over the aforementioned areas may result in water logging, and damage on crops which are attaining at lower vegetative stages over crop field particularly low-lying areas and near river banks. Thus, proper precautions should be carried out ahead of time to minimize the risk due to heavy fall.

Table 1. Climatic and Agro-Climatic elements of different stations for the month Of June 2007

1	Stations	Region	A/ rainfall	Normal	%of Normal	Eto mm/day	Monthly Eto	Moisture
1	Adigrat	TIGRAI	81.9	32	255.9	NA	NA	NA
1	Mekele		57.5	29.1	197.6	4.90	147.00	MD
1	Senkata		143.0	115.5	123.8	NA	NA	NA
1	Shire		194.1	145.9	133.0	4.09	122.70	M
1	Assayta	AFAR						
2	Dubti		6.7	2.6	257.7	NA	NA	NA
3	Semera		0.6					
1	A. Ketema	AMHARA	138.7	72.3	191.8	3.80	114.00	H
2	Ambamariam		35.8	NA	NA	NA	NA	NA
3	Aykel		270.3	253.5	106.6			
4	Bahirdar		254.5	192.4	132.3	3.69	110.70	H
5	Bati		15.5	15.4	100.6	NA	NA	NA
6	Bullen		223.9	264.8	84.6	2.90	87.00	H
7	Combolcha		36.8	32.2	114.3	4.07	122.10	MD
8	Chefa		20.5	33.2	61.7	4.42	132.60	D
9	D.Birhan		76.6	47	161.6	2.76	82.80	M
10	D.Markos		188.4	161.3	116.8	3.11	93.30	H
11	D.Tabor		271.2	182.6	148.5	NA	NA	NA
12	Dangila		262.0	153.9	170.2	3.10	93.00	H
13	Enwary		105.7	54.2	195.0	3.93	117.90	M
14	Gonder		187.4	172.6	108.6	NA	NA	NA
15	M.Meda		82.3	38.4	214.3	3.30	99.00	M
16	Majete		32.1	28.2	113.8	4.27	128.10	MD
17	Metema		220.2	183.4	120.1	4.87	146.10	H
18	Motta							
19	Lalibela		204.0	NA	NA	3.29	98.70	H
20	Pawe		364.3	295.5	123.3	3.36	100.80	H
21	S. Gebeya		301.9	62.6	482.3	3.64	109.20	H
22	Sirinka		33.8	29.3	115.4	4.28	128.40	MD
23	Wegeltena		116.4	26.3	442.6	3.45	103.50	H
24	Wereilu		40.8	47.0	86.8	3.56	106.80	MD
		OROMIYA						
1	Abomsa		51.4	NA	NA	4.49	134.70	MD
2	Ambo Agri.		302.7	156	194.5	3.40	102.00	H
3	Aira		196.9	32.0	615.3	3.01	90.30	H
6	Ambo		302.7	155.6	194.5	NA	NA	NA
7	Arjo		445.4	309.7	143.8	NA	NA	NA
8	Arsirobe		131.9	98.0	134.6	3.42	102.60	H
9	Bedelle		370.0	290.7	127.3	NA	NA	NA
10	Begi		238.9	255.0	93.7	NA	NA	NA
11	Blate		167.5	79.1	211.8	NA	NA	NA
12	Chira		160.5	253.8	63.2	NA	NA	NA
13	D.Dollo		129.0	191.2	67.5	2.89	86.70	H
14	D.Mena		100.0	275.0	36.4	NA	NA	NA
15	D.Zeit		91.6	92.7	98.8	4.04	121.20	M
16	Fitche		120.3	84.3	142.7	3.48	104.40	H
17	Ejaji		353.8	178.1	198.7	2.87	86.10	H
18	Gelemso		72.1	85.5	84.3	3.94	118.20	M
19	Gimbi		255.6	330.2	77.4	NA	NA	NA
20	Ginir		56.2	31.7	177.3	NA	NA	NA
21	H. Mariam		71.5	63.7	112.2	2.43	72.90	M
22	Jimma		134.1	215.9	62.1	2.98	89.40	H

23	K.Mengist		46.1	62.6	73.6	NA	NA	NA
24	Kachisa		282.4	249.1	113.4	3.13	93.90	H
25	Koffele		51.4	110.9	46.3	NA	NA	NA
26	Kulumsa		119.9	89.8	133.5	NA	NA	NA
27	Limugenet		115.7	260.5	44.4	NA	NA	NA
28	Masha							
29	Mieso		37.3	48.1	77.5	NA	NA	NA
30	Metehara		7.3	24.1	30.3	NA	NA	NA
31	Moyale		18.9	16.6	113.9	NA	NA	NA
32	Nazreth		66.8	65.6	101.8	5.08	152.40	MD
33	Neghele		17.3	12.0	144.2	3.85	115.50	D
34	Nedjo		296.9	303.6	97.8	2.76	82.80	H
35	Nekemte		461.4	388.0	118.9	2.87	86.10	H
36	Robe(Bale)		50.2	54.0	93.0	NA	NA	NA
37	Sekoru		283.7	225.2	126.0	3.49	104.70	H
38	Shambu		251.3	244.8	102.7	3.20	96.00	H
39	Yabello		11.7	21.7	53.9	NA	NA	NA
40	Ziway		148.6	84.7	175.4	4.41	132.30	H
1	Gode	SOMALI	0.0	0.6	0.0	NA	NA	NA
2	Jijiga		23.2	50.9	45.6	NA	NA	NA
1	A.Minch	SNNPR	82.2	61.4	133.9	3.16	94.80	M
2	Awassa		222.9	101.3	220.0	3.44	103.20	H
3	Blate							
4	Hosaina		161.3	124.1	130.0	3.14	94.20	H
5	Jinka		374.9	94.0	398.8	2.46	73.80	H
6	Konso		74.5	40.5	184.0	3.48	104.40	M
7	M.Abay		70.2	77.7	90.3	3.62	108.60	M
8	Sawla		176.2	101.8	173.1	2.83	84.90	H
9	Sodo							
1	Assosa	B/GUMUZ	190.2	194.5	97.8	3.81	114.30	H
2	Chagni		342.5	263.6	129.9	2.88	86.40	H
3	Mankush		206.0					
1	Gambela	Gambela	118.8	145.4	81.7	NA	NA	NA
1	A.A.Obs.	A.A	153.1	118.4	129.3	2.56	76.80	H
2	A.A. Bole		163.5	123.5	132.4	3.70	111.00	H
	Diredawa	D.D	69.5	22.8	304.8	5.85	175.50	MD
1	Harar	Harai	49.4	68.2	72.4	3.09	92.70	M

Legend

VD	Very Dry	< 0.1
D	Dry	0.1 - 0.25
MD	Moderately 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.

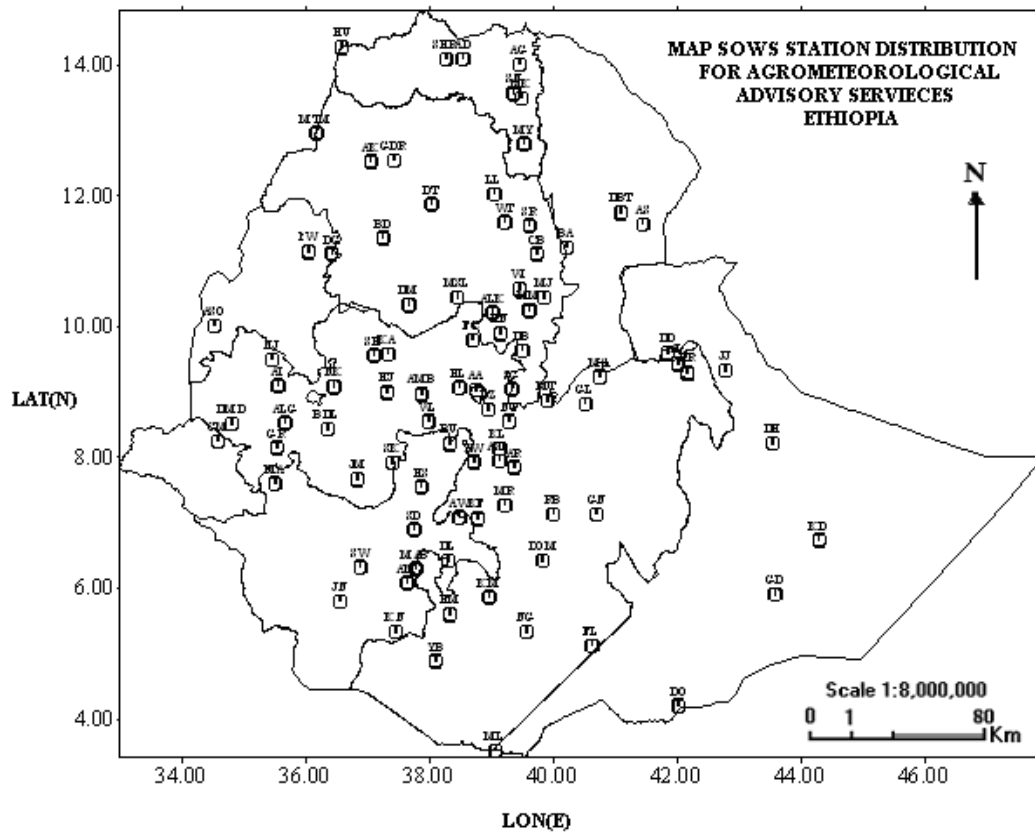
DEKAD: - First or second ten days or the remaining days of a month.

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	Station	CODE	Station	CODE	Station	CODE
		D. Markos	DM	Hossaina	HS	M/Selam	MSL
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
Alem Ketema	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 Gebeya	SG
Assosa	ASO	Filtu	FL	M/Abaya	MAB	Sirinka	SR
Awassa	AW	Gambela	GM	Maichew	MY	Sodo	SD
Aykel	AK	Gelemso	GL	Majete	MJ	Wegel Tena	WT
B. Dar	BD	Ginir	GN	Masha	MA	Woliso	WL
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. Harbour	DH	Holleta	HL	Moyale	ML		