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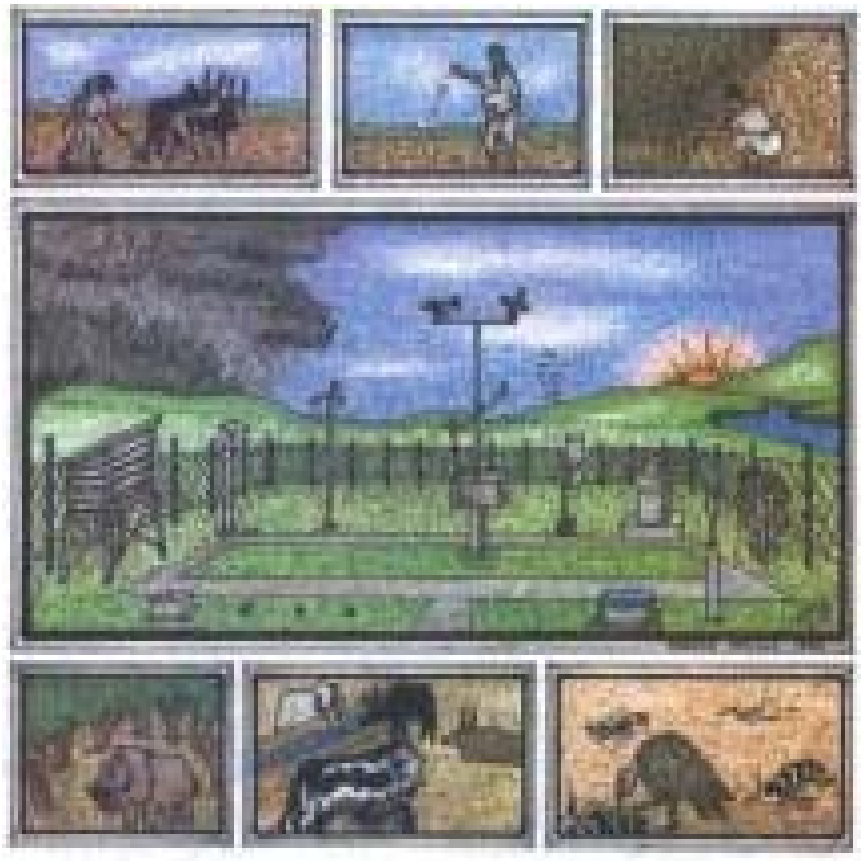

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FOREWARD

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
August 2005

During the first dekad of August 2005 a decrease in rainfall amount was observed in most parts of the country relatively as compared to that of the preceding dekad however the distribution was in a good shape in terms of crop water requirement. Besides there was satisfactory stored soil moisture in most places due to the observed abundant fall during the preceding dekad. As a result crops were in good condition in most parts of Meher crop producing areas. Nevertheless some areas of central, northeastern, eastern, western and northwestern parts of the country exhibited heavy falls ranging from 30-67 mm. Among the reporting stations Alem Ketema, Fitche, Addis Ababa Obs, Masha, Kachse, Adigrat, Nekemte, Jijiga and Gore received 41.5, 42.8, 46.8, 49.3, 49.5, 50.7, 52.0, 65.0 and 67.0 mm of rainfall in one rainy day. Moreover some stations like Gonder, Nekemt and Mankush reported heavy falls greater than 30 mm for 2, 2 and 4 days in the ten days period, respectively. Thus some areas like Fitche reported crop damage due to heavy falls during the first dekad under review.

During the second dekad of August 2005, the observed over all rainfall condition favored season's agricultural activities in most parts of Meher growing areas. Nevertheless some pocket areas of central, northern, western, northeastern and southwestern parts of the country exhibited heavy falls ranging from 30-104mm in one rainy day. Among the reporting stations Metema, Limu Genet, Michew, Aira, Ejaji, Debre Tabor, Alge, Kobo, Gore, Jinka and Bui recorded 44.6, 44.7, 45.5, 46.6, 49.8, 50.3, 55.0, 58.6, 59.6, 60.4 and 104.9 mm of heavy fall in one rainy day respectively. As a result some areas of the above mentioned areas like Bui and Dangila reported crop damage due to heavy falls.

During the third dekad of August 2005 most parts of SNNP, parts of central and eastern Oromiya, southwestern Benishangul-Gumuz including parts of western Amhara exhibited below normal rainfall. Nevertheless, the impact was not significant in terms of water stress in most areas. As a result crops were in a good shape in most Meher crop producing areas. Some areas of north-western, western, northern and central Ethiopia exhibited heavy falls ranging from 40-85 mm, which can have damaging effect particularly in low-lying areas and in areas where the soil type is clay. For instance Bedelle experienced heavy falls greater than 30 mm for four days out of the ten days period and reported crop damage due to flooding and hailstorms. Moreover, Gimbi reported maize and sorghum crops damage due to the same reason. Pursuant to the crop phenological report sowing of teff was under way in some areas of southwestern Benishangul-Gumuz like Assosa and eastern Oromiya like Gelemso. Dembi Dolo reported slight wilting on maize and sorghum crops due to moisture stress. Assosa and Gimbi reported medium field condition on nug and sorghum fields, respectively due to slight weed infestation. Besides Gimbi reported slight sorghum crop damage due to disease infestation on the same crop (sorghum).

Although some areas of eastern, southern and southwestern parts of the country exhibited below normal rainfall during the month of August the overall situation of Meher crops was in a good shape in most areas. Besides as the moisture status index for August 2005 shows most parts of Kiremt benefiting areas exhibited moist to humid moisture status (Table 1). On the other hand, some areas of north-western, western, northern and central Ethiopia exhibited heavy falls ranging from 40-104 mm during the month which can have damaging effect particularly in low-lying areas and in areas where the soil type is clay. For instance as mentioned in the above detail statement, Fitche reported crop damage due to heavy falls during the first dekad, Bui and Dangila reported crop damage due to heavy falls during the second and Bedelle experienced heavy falls greater than 30 mm for four days out of the ten days period and reported crop damage due to flooding and hailstorms during the third dekad. Moreover, Gimbi reported maize and sorghum crops damage due to the same reason. Generally the overall rainfall situation was favorable for season's agricultural activities in most Meher growing areas during the month under review.

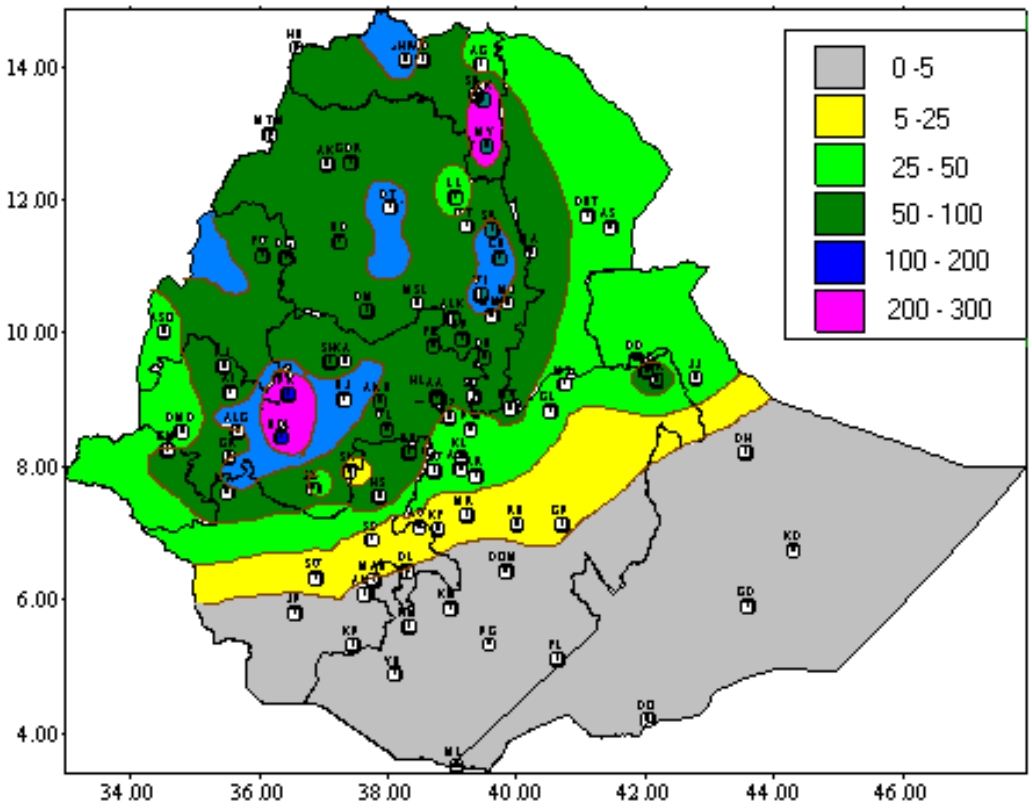


Fig 1. Rainfall distribution in mm (21-3l August, 2005)

1. WEATHER ASSESSMENT

1.1 (21-3l August, 2005)

1.1.1 Rainfall amount (Fig.1)

Parts of central and South Tigray, parts of central and few areas of eastern Amhara, most parts of western Oromiya and northwestern parts of Benshangul-Gumuz received falls greater than 100 mm. Most parts of Meher producing areas received 50-100 mm of rainfall. Northeastern Tigray, eastern half of Tigray, northern Somali, parts of eastern and central Oromiya, western Gambela and parts of northern SNNPR receved 25-20mm of rainfall. There was little or no rainfall over southern half of SNNPR, southern Oromiya and most parts of Somali.

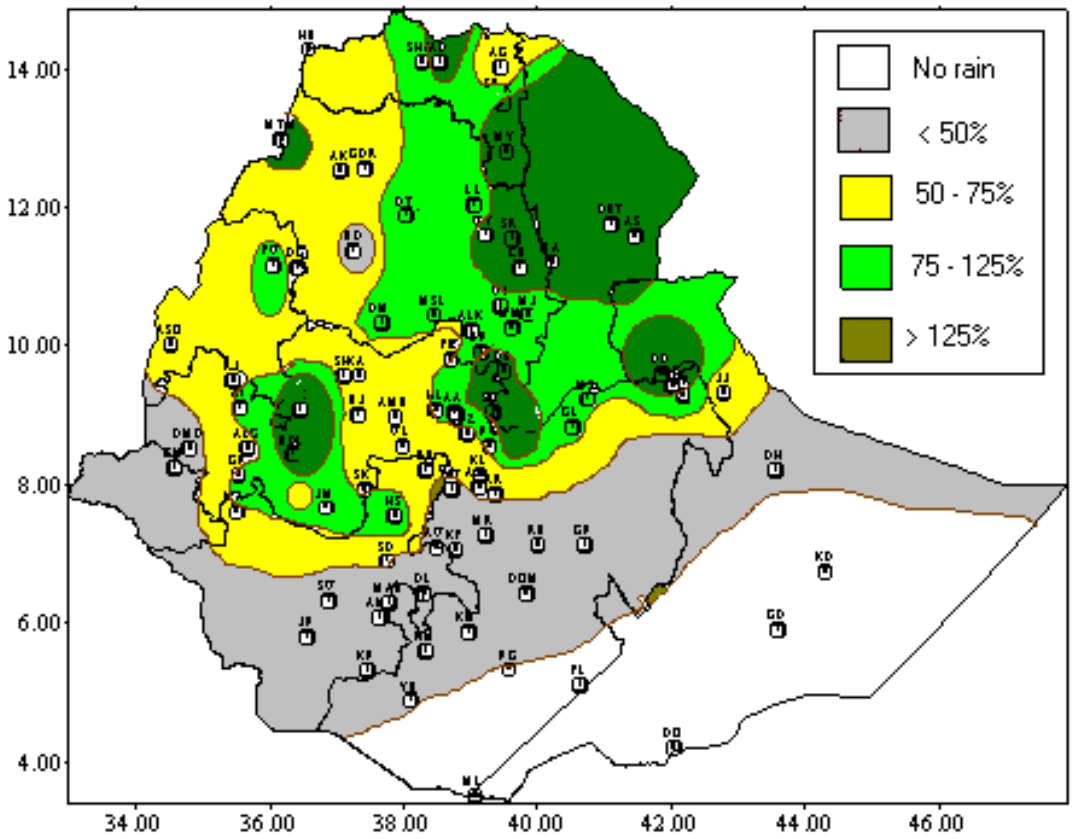


Fig. 2 Percent of normal rainfall (21-3l August, 2005)

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 western Tigray, western Amhara, central, parts of eastern and southern Oromiya, most parts of SNNPR, most parts of Benishangul-Gumuz and Gambela the rest parts of Meher producing parts of the country experienced normal to above normal rainfall.

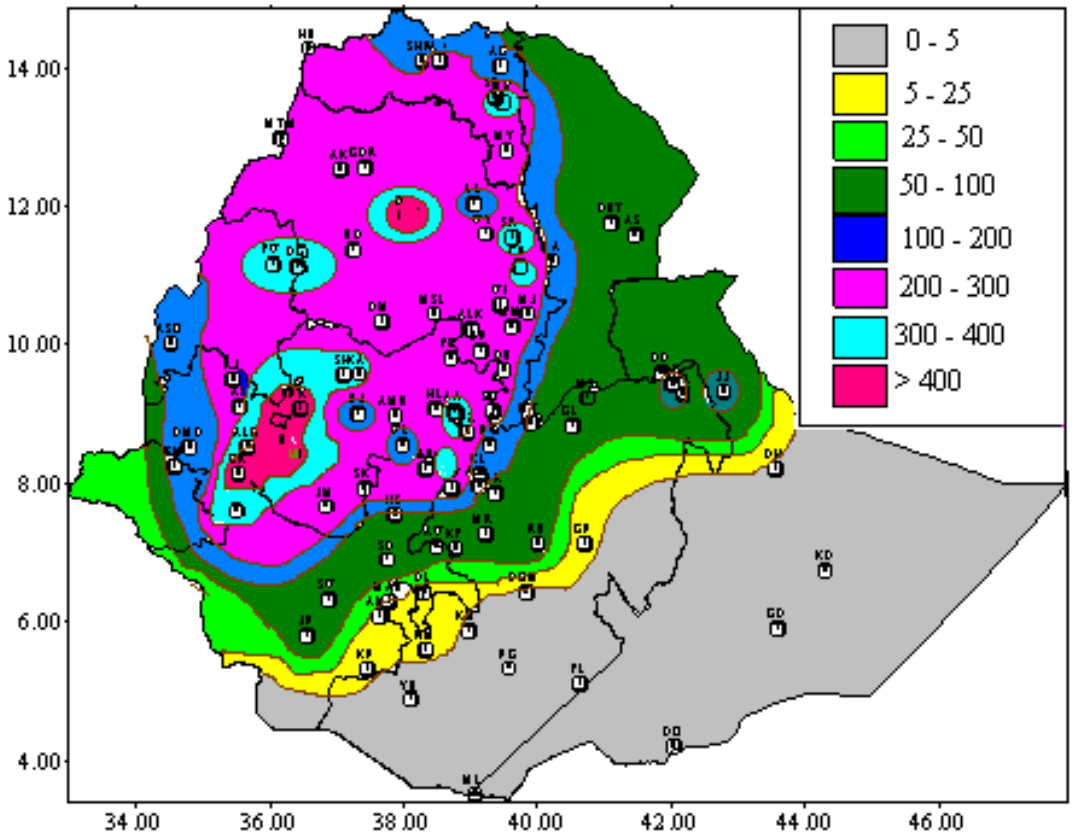


Fig. 3 Rainfall distribution in mm for the month of August 2005

1.2 August 2005

1.2.1 Rainfall distribution (Fig.3)

Most parts of Meher growing areas received greater than 200 mm of rainfall. Northern and northeastern Tigray, western margin of Afar and southwestern Benishangul-Gumuz and few areas of Oromiya received 100-200 mm of rainfall. Most parts of Afar, parts of eastern and central Oromiya, most parts of northern half of SNNPR and parts of eastern Gambela received 50-100 mm of rainfall. The rest parts of Kiremt benefiting areas received below 25 mm of rainfall during the month.

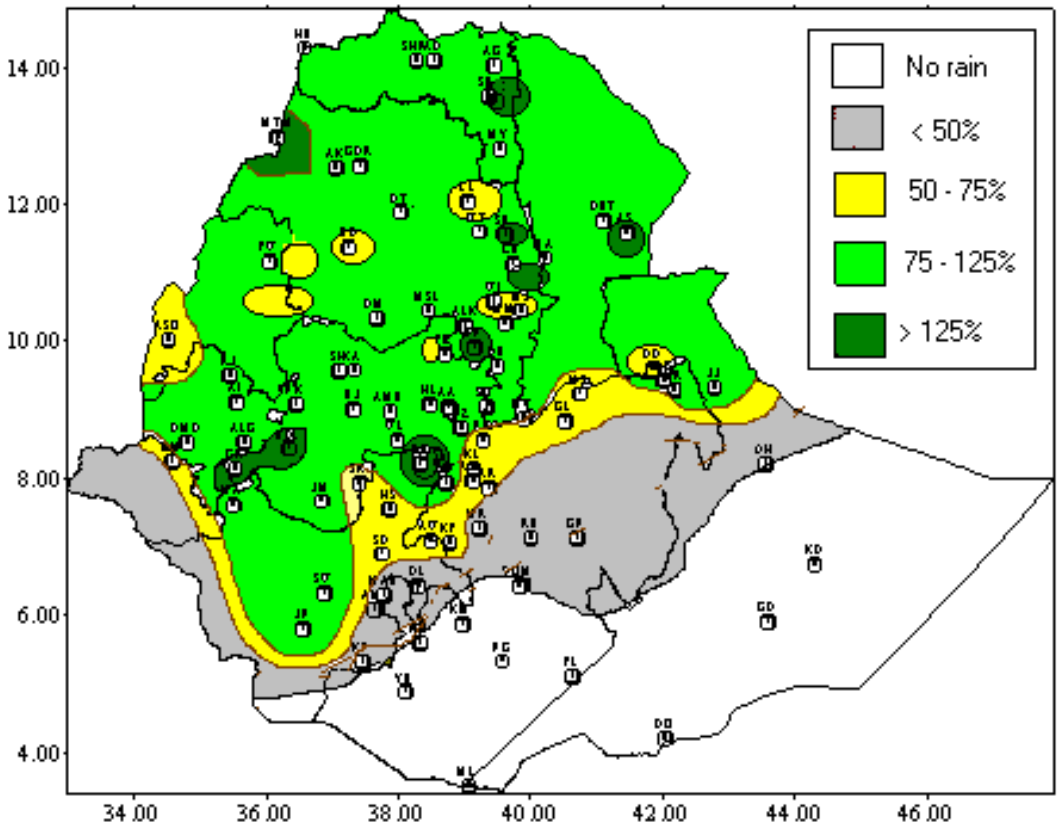


Fig. 4 Percent of Normal Rainfall for the month of August 2004

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)

Most parts of Meher growing areas experienced normal to above normal rainfall. However, southern portion of the Meher growing areas, which includes eastern Oromiya and central Oromiya including eastern parts of SNNPR have experienced below to much below normal range.

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 September 2005

In the coming ten days, Tigray, Amhara, Afar, Bennishangul-Gumuze , western and central Oromya, Gambella, and northern half of SNNPR are expected to get close to normal rains however some places will have a chance of getting above normal rains. On the other hand, eastern and southern Oromya including Bale high lands, northern Somali as well as southern half of SNNPR are anticipated to have below normal rainfall. Partly cloudy condition will dominate over southern Somali and the extreme south of the country.

2.2 For the month of September 2005

In the coming month (September) close to normal rainfall is expected over western Tigrai, western Amhara, Benshangul-Gumuz, western and central Oromya, Gambella and northern half of SNNPR. Besides, above normal rainfall is anticipated over some places of the aforementioned areas. Below normal rainfall is expected over eastern portions of Tigrai and Amhara, eastern Oromya, northern Somali, Afare, Harari, Dire Dawa and southern part of SNNPR. Low lands of southern and southeastern Ethiopia are anticipated to get the seasonal rain under normal condition. However its amount will be below normal.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Although some areas of eastern, southern and southwestern parts of the country exhibited below normal rainfall during the month of August the overall situation of Meher crops was in a good shape in most areas. Besides as the moisture status index for August 2005 shows most parts of Kiremt benefiting areas exhibited moist to humid moisture status (Table 1). On the other hand, some areas of north-western, western, northern and central Ethiopia exhibited heavy falls ranging from 40-104 mm during the month which can have damaging effect particularly in low-lying areas and in areas where the soil type is clay. For instance as mentioned in the above detail summery, Fitche reported crop damage due to heavy falls during the first dekad, Bui and Dangila reported crop damage due to heavy falls during the second and Bedelle experienced heavy falls greater than 30 mm for four days out of the ten days period and reported crop damage due to flooding and hailstorms during the third dekad. Moreover, Gimbi reported maize and sorghum crops damage due to the same reason. Generally the overall rainfall situation was favorable for season's agricultural activities in most Meher growing areas during the month under review. Pursuant to the crop phenological report (21-31 August 2005) sowing of teff was under way in some areas of southwestern Benishangul-Gumuz like Assosa and eastern Oromiya like Gelemso. Maize was at ninth leaf and tasseling stages in some areas of northwestern and northeastern Amhara (Dangila, Bati, Sirinka and Majete) while at flowering stage in some areas of western Oromiya (Nedjo). Moreover, it was at wax and full ripeness stage over some southern highlands of Oromiya like Chira, western Oromiya Dembi Dolo, Aira, Gimbi, Alge, Limu Genet, Skoru and Bedelle) including some areas of north-eastern SNNPR like Hossaina. Sorghum was at third leaf stage in some areas of western highlands of Amhara like Gonder and southwestern Benishangul-Gumuz like Assosa while at shooting and tasseling stages in some areas of eastern Amhara (Bati and Majete), western Oromiya (Aira, Nedjo and Dembi Dolo), southern highlands of

Oromiya (Chira) and northwestern Benishangul-Gumuz (Mankush). It was at flowering stage in some areas of western Oromiya (Gimbi). Barley was at earing stage in some areas of western Amhara

(Gonder) and eastern Amhara (Lalibela) whereas at flowering stage in southeastern Amhara (Debre Birhan). Wheat was at third leaf stage in some areas of western Oromiya(Shambu), some areas of northeastern SNNPR like Hossaina and eastern Amhara (Wegel Tena). It was at tillering and shooting stages in some areas of central Oromiya(Kulumsa and Fitche), eastern SNNPR(Arba Minch) and southwestern Amhara (Shola Gebeya and Were Ilu). Teff was at emergence stage in some areas of eastern Amhara like Bati, southern highlands of Oromiya (Chira) and central parts of northern Oromiya(Kachice) while at third leaf and shooting stage in some areas of western Amhara(Gonder, Dangila, Mota and Bahir Dar), southeastern Amhara (Alem Ketema and Were Illu), eastern Amhara(Srinka), central and western Oromiya like Bedelle and Bui. It was at tasseling stage in some areas of eastern Amhara like Majete. Peas were at emergence stage in some areas of central and western Oromiya. Beans were at budding stage in some areas of central Oromiya while at flowering sgtage in some areas like Fithe, Amba Mariam, Were Illu and Shola Gebeya. Oil crops like sunflower and Nug are at early vegetative stage in some areas like Mearab Abaya and Chagni. Dembi Dolo reported slight wilting on maize and sorghum crops due to moisture stress. Assosa and Gimbi reported medium field condition on nug and sorghum fields, respectively due to slight weed infestation. Besides Gimbi reported slight sorghum crop damage due to disease infestation on the same crop (sorghum).

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING MONTH

The anticipated normal to above normal rainfall over western Tigray, western Amhara, Benishangul-Gumuz, western and central Oromiya, Gambela and northern SNNPR would favor crops which are found at different phenological stages and the availability of pasture and drinking water as well. Besides it would favor land preparation and sowing activities for pulse crops like chickpeas and lentil. However there will be a possibility of heavy falls in some pocket areas of the aforementioned areas. Thus attention should be given for proper precaution ahead of time particularly over low-lying areas and near riverbanks including in areas where the soil type is clay. On the other hand the expected deficient fall over eastern Tigray, eastern Amhara, eastern Oromiya, parts of northern Somali, Afar, Hrarari and Dire Dawa including southern portion of SNNPR would exacerbate the moisture stress of crops persisted during the preceding month in some pocket areas of eastern Oromiya, eastern Amhara and eastern and southern Tigray. Besides it could have negative impact on the availability of pasture and drinking water over agro pastoral areas of southern, eastern, and southeastern Ethiopia. Moreover the expected deficient and erratic rainfall situation over the lowlands of the above mentioned areas would create favorable condition for the outbreak of pest and diseases. Hence attention should be given for judiciously approaches of pest control measures to mitigate the effect of pest outbreaks and its impact.

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

	Stations	Region	A/ rainfall	Normal	%of Normal	ETo mm/day	Monthly ETo	Moisture status
1	Adigrat	TIGRAI	166.7	151	110.4	3.66	113.46	H
2	Adwa		231.2	251.7	91.9	NA	NA	NA
3	Mekele		314	201.6	155.8	3.56	110.36	H
4	Michew		220.3	198.9	110.8	NA	NA	NA
5	Senkata		164.8	198.2	83.1	NA	NA	NA
6	Shire		193.7	286.3	67.7	3.4	105.4	H
1	Assayta	AFAR	76.1	36.3	209.6	6.19	191.89	MD
2	Dubti		69.8	48	145.4	6.49	201.19	MD
3	Elidar		6.5	33.8	19.2	7.73	239.63	VD
1	Bahirdar	AMHARA	250.9	381.8	65.7	3.5	108.5	H
2	Bati		186.3	193.6	96.2	4.32	133.92	H
3	Bullen		205.1	366.5	56.0	2.98	92.38	H
4	Chagni		249.8	354.2	70.5	2.84	88.04	H
5	Chefa		188.9	243.4	77.6	NA	NA	NA
6	Combolcha		321.8	247.6	130.0	4.09	126.79	H
7	Dangila		388.6	262.9	147.8	3.15	97.65	H
8	D.Birhan		215.2	247.4	87.0	3.19	98.89	H
9	D.Markos		220.5	305.4	72.2	2.95	91.45	H
10	D.Tabor		459.6	435.1	105.6	NA	NA	NA
11	Enwary		239	171.4	139.4	2.78	86.18	H
12	Gonder		276.7	299.3	92.4	3.61	111.91	H
13	Lalibela		155.7	231.9	67.1	NA	NA	NA
14	Majete		82.2	159.6	51.5	NA	NA	NA
15	M.Meda		206	259.6	79.4	NA	NA	NA
16	Metema		260.9	234.4	111.3	NA	NA	NA
17	Mota		226.6	285.1	79.5	NA	NA	NA
18	S.Gebeya		294.6	297.1	99.2	3.06	94.86	H
19	Sirinka		323.3	247.3	130.7	4.02	124.62	H
20	Woreilu		227.3	341.8	66.5	3.32	102.92	H
21	Wegeltena		218.6	231.2	94.6	3.44	106.64	H
1	Abomsa	OROMIYA	137.2	161.5	85.0	4.27	132.37	H
2	Alge		278.5	329.5	84.5	NA	NA	NA
3	Aira		296	277.4	106.7	3.3	102.3	H
4	Alemaya		126.2	155.1	81.4	4.09	126.79	M
5	Bedelle		405.8	316.9	128.1	NA	NA	NA
6	Begi		186.2	184	101.2	NA	NA	NA
7	Bui		343.2	87.9	390.4	3.97	123.07	H
8	D.Dolo		115	116.4	98.8	NA	NA	NA
9	D.Mena		3.4	73.7	4.6	NA	NA	NA
10	D.Zeit		198.2	219	90.5	3.86	119.66	H
11	Ejaji		158.3	221	71.6	NA	NA	NA
12	Fitche		212.5	342.7	62.0	3.12	96.72	H
13	Gelemso		90.7	164.7	55.1	4.33	134.23	M
14	Gimbi		264.1	331.2	79.7	3.25	100.75	H
15	Gore		432.4	330.7	130.8	3.69	114.39	H
16	H.Mariyam		12.5	41	30.5	2.67	82.77	D
17	Jimma		227.5	212.9	106.9	3.22	99.82	H
18	K.Mengist		3.4	31	11.0	2.87	88.97	VD

19	**Kachise**		356.5	410.3	86.9	NA	NA	NA
20	**Kulumsa**		86.5	134.7	64.2	3.45	106.95	M
21	**Limugenet**		307.5	277.6	110.8	3.3	102.3	H
22	**Masha**		355.7	311.3	114.3	2.65	82.15	H
23	**Meisso**		96.7	166.2	58.2	5.26	163.06	M
24	**Metehara**		50.5	34.9	144.7	5.43	168.33	MD
25	**Nazreth**		165	214.2	77.0	4.98	154.38	H
26	**Neghele**		0.6	5.5	10.9	NA	NA	NA
27	**Nedjo**		233	312.2	74.6	3.05	94.55	H
28	**Nekemte**		438.2	376.6	116.4	2.95	91.45	H
29	**Robe(Bale)**		58.9	119.4	49.3	4.18	129.58	MD
30	**Sekoru**		119.2	223.1	53.4	3.17	98.27	H
31	**Shambu**		328.4	376	87.3	3.01	93.31	H
1	**Gode**	**SOMALI**	0	0	NA	NA	NA	NA
2	**Jijiga**		119.2	120.5	98.9	4.94	153.14	M
1	**A.Minch**	**SNNPR**	22.3	44.1	50.6	4.2	130.2	D
2	**Awassa**		64.1	125.7	51.0	3.92	121.52	M
3	**Hosaina**		98.9	184.4	53.6	3.06	94.86	H
4	**Jinka**		75.5	78.9	95.7	3.47	107.57	M
5	**M.Abay**		10.9	53.5	20.4	NA	NA	NA
1	**Pawe**	**B/GUMUZ**	361.6	388.3	93.1	3.41	105.71	H
2	**Assossa**		157.3	227.7	69.1	NA	NA	NA
3	**Mankush**		307.5	NA	NA	3.53	109.43	H
1	**A.A.Obs.**	**A.A**	317.9	278	114.4	2.83	87.73	H
1	**Diredawa**	**D.D**	74.6	126.4	59.0	6.38	197.78	MD
1	**Harar**	**Harai**	93.4	118.3	79.0	3.46	107.26	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 evapotransipiration of a disease free crop, growing under non-restricting soil conditions including soil water and fertility.

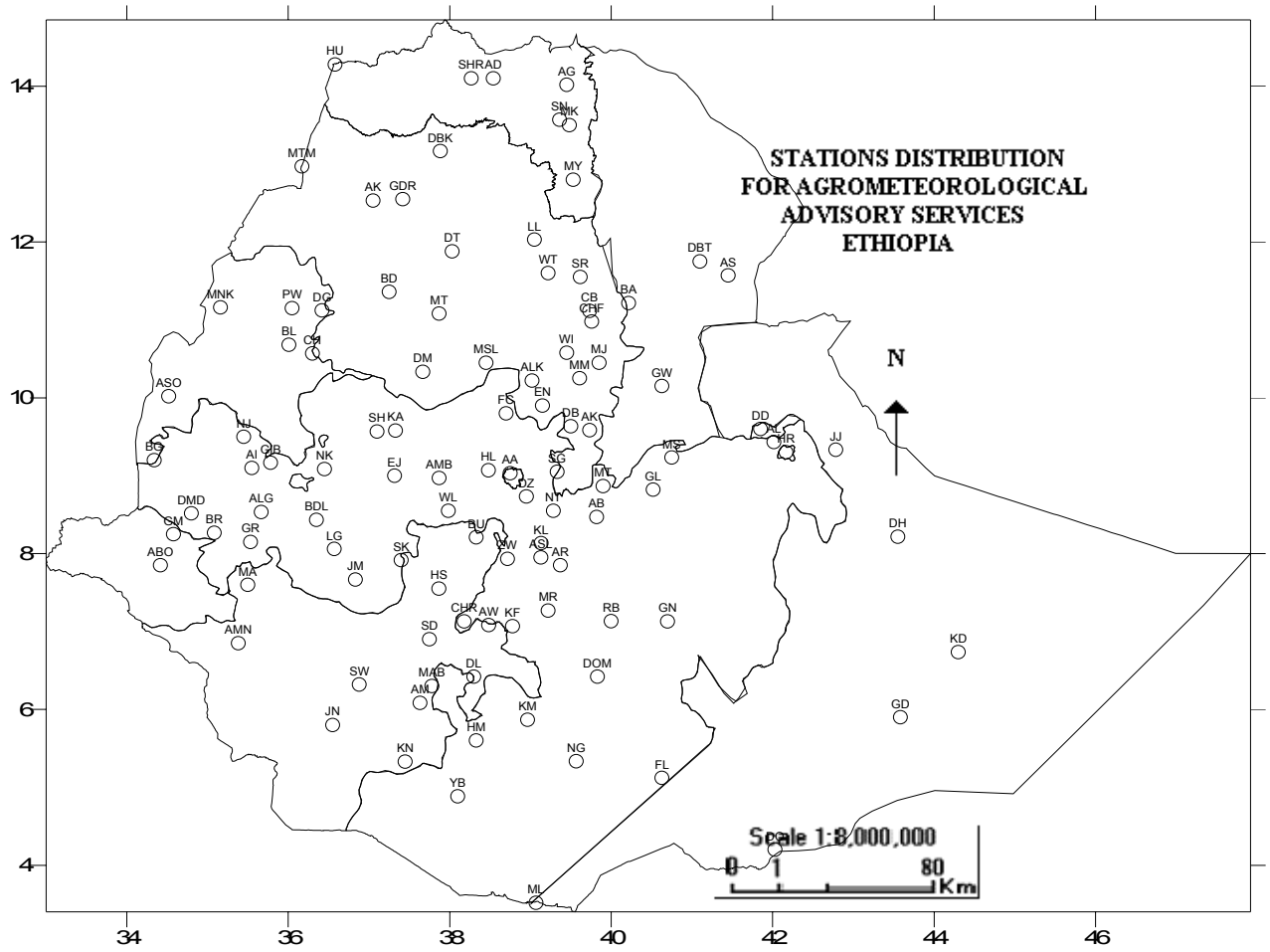
DEKAD: - First or second ten days or the remaining days of a month.

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.



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	Harer	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		