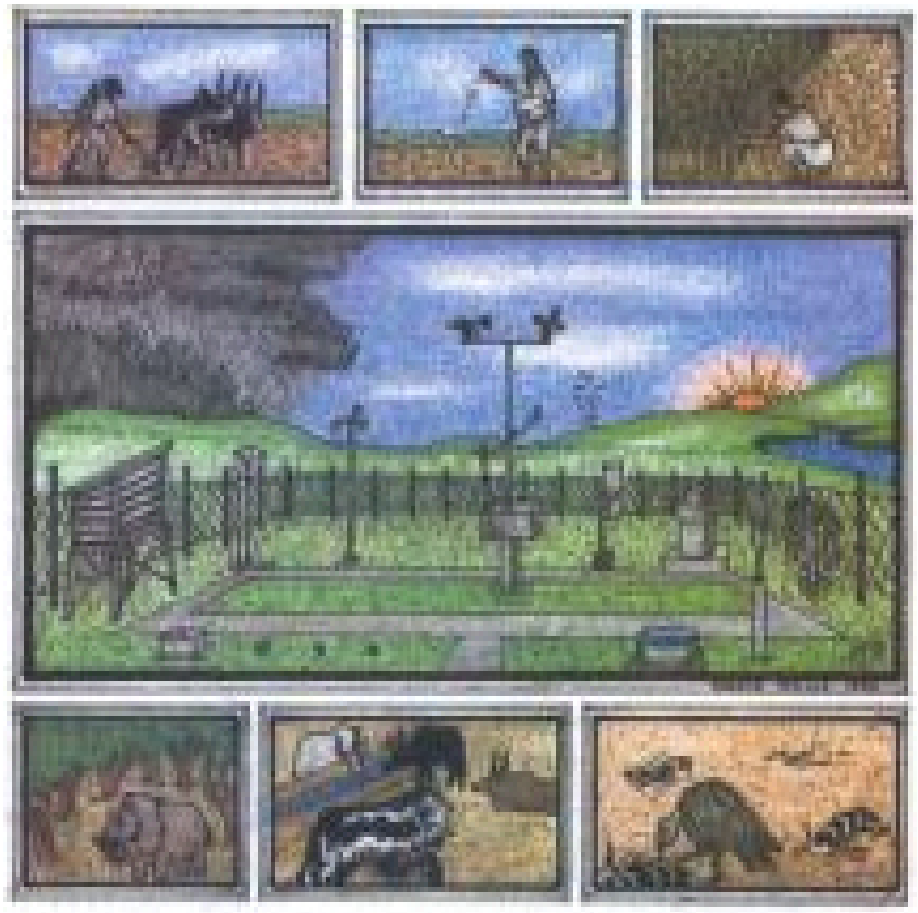
NATIONAL METEOROLOGICAL SERVICES AGENCY AGROMETEOROLOGICAL BULLETIN

MONTHLY AGROMETEOROLOGICAL BULLETIN
OCTOBER 2005
VOLUME 15 No. 30
DATE OF ISSUE: - November 8, 2005



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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
October 2005

During the first dekad of October 2005, the observed normal to above normal rainfall over western Tigray, most parts of western half of Amhara, northern and eastern Benishangul Gumuz, western and central Oromiya, Gambela and southern Oromiya could favor crops which are at different phenological stages. Besides it could have significant contribution for the availability of pasture and drinking water over pastoral areas of southern Oromiya. However some pocket areas of western Oromiya and northwestern Amhara exhibited 30-54 mm of heavy rainfall in a rainy day. As a result some areas like Limu Genet reported plant damage due to heavy fall. On the other hand the dry spell observed over eastern Amhara, central Oromiya and northeastern SNNPR could favor harvest and post harvest activities in areas like Amba Mariam, Mehal Meda, Chefa, Were Ilu, Sirinka, Abomsa, Adama, Kulumsa, Kofele, Ziway and Hosaina where harvest and post harvest activities are under question. The observed below normal rainfall over southeastern and southern parts of Ethiopia could have negative impact on the availability of pasture and drinking water in the areas.

During the second dekad of October 2005 the observed below normal rainfall over most parts of the country could have negative impact particularly over south and southeastern parts of Ethiopia in areas where they are normally supposed to get seasonal rainfall at this time of the year. Besides, the deficient falls could have negative influence on cereal and pulse crops, which are at different phenological stages over northeastern (Wegel Tena, Chefa, Kombolcha), southern (Sidama, Gedio, Hadiya, Wolayita, Gamu Gofa, Silte, Sheka and Yirga Chefe) and eastern (Gelemso and Alemaya) to some extent. On the other hand the observed normal to above normal rainfall over northwestern and western Ethiopia could favor crops which were at flowering and early maturity stages. Nevertheless, the observed heavy falls (> 50 mm in a rainy day) in some pocket areas like Pawe, Chagni and Nekemte could affect harvest and post harvest activities. Pursuant to the crop phenological report harvest and post harvest activities has been going on in some areas of central and western parts of Ethiopia. Fore instance harvest of maize and beans was under way in Bedelle and Kulumsa, respectively during the dekad under review. With regard to crop damage due to adverse weather condition, Shambu reported slight hail damage on wheat crop; Dolo Mena and Fiche reported slight insect damage on teff and beans, respectively; Assossa reported slight diseases damage on teff and Nug crops; Limu Genet reported wilting of nug and millet due to water stress.

During the third dekad of October 2005 western, southwestern and parts of southern Ethiopia exhibited normal to above normal rainfall. Thus this condition could have significant contribution to fulfill the water requirement of crops, which are not attaining maturity. It could also favor perennial crops and the availability of pasture and drinking water particularly over southern SNNPR and southern Oromiya. On the other hand the observed dry weather situation over eastern Amhara and Tigray, central and eastern Oromiya including northeastern SNNPR could favor harvest and post harvest activities. In accordance with the crop phenological report harvest of maize and beans was under way in some areas of western Oromiya, eastern Amhara and some areas of northern SNNPR. Assossa reported slight crop damage due to insect and disease on teff and nug crops respectively. Shola Gebeya and Fiche reported slight maize crop damage due to insect pest. Limu Genet and Bedelle reported slight wilting due to moisture stress on cereal crop like teff and millet as well as oil crop like nug. With regard to extreme minimum temperature some areas of northern Ethiopia like Adigrat, eastern highlands like Alemaya, northeastern (Wegel Tena) and central highlands like Debre Birhan, Fiche and Mehal Meda exhibited extreme minimum temperature less than 5°C for 2-11 days during the third dekad of October 2005.

Generally the performance of crops was in a good shape in most parts of Meher growing areas during the month under review. Harvest and post harvest activities were under way in some areas of central, western and northeastern parts of the country. Some areas like Dolo Mena, Fitche, Assossa, Limu Genet, Shola Gebeya and Wegel Tena reported slight pest and disease damage on cereal, pulses, and oil crops. Besides slight crop damage due to water stress has been observed in some areas of western Oromiya like Bedelle and Limu Genet. With regard to extreme minimum temperature some areas of central (Fitche, Debre Zeit, Debre Birhan and Mehal Meda), eastern (Alemaya), northern (Adigrat) and north-eastern (Wegel Tena) highlands exhibited extreme minimum temperature less than 5°C lowering up to 1.5°C which can have negative impact on normal growth and development of the plant.

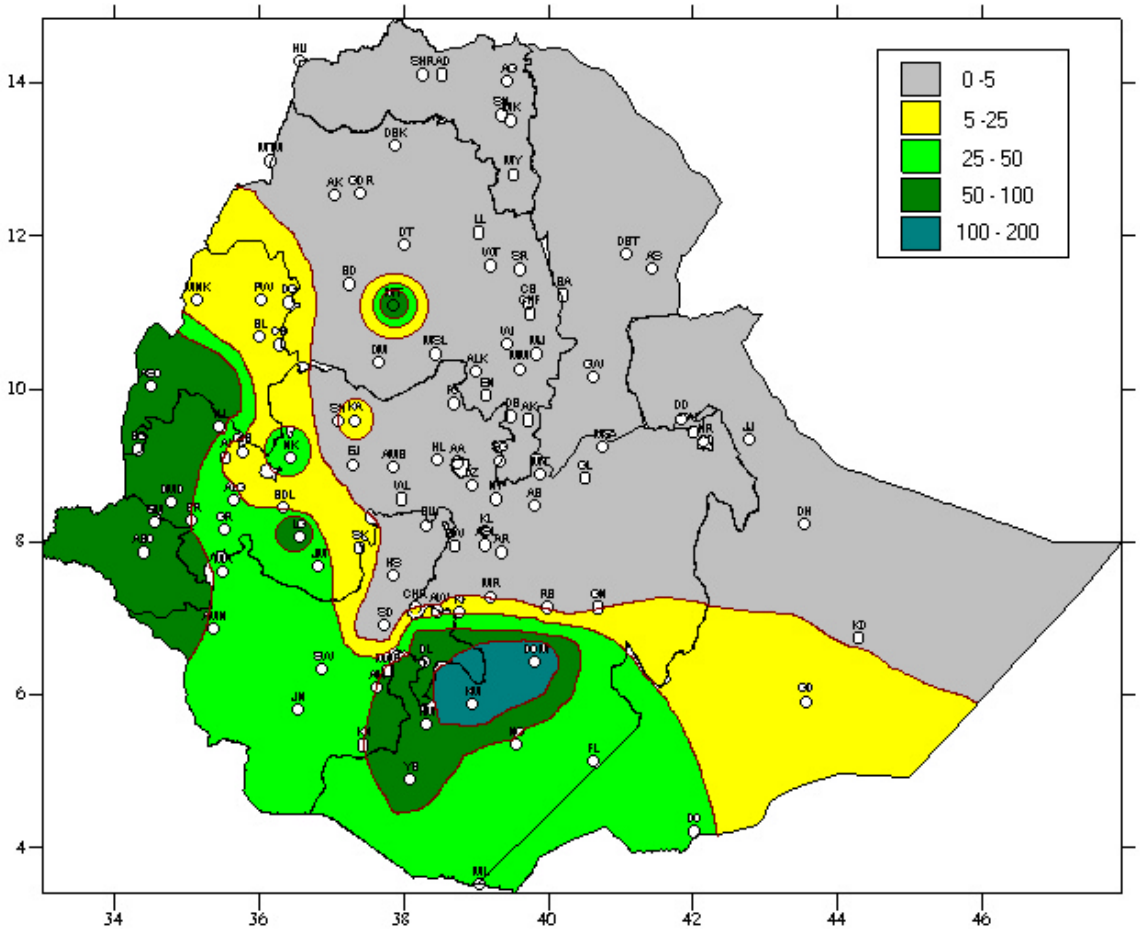


Fig 1. Rainfall distribution in mm (21-3l October, 2005)

1. WEATHER ASSESSMENT

1.1 (21-3l October, 2005)

1.1.1 Rainfall amount (Fig.1)

Few areas of southern Oromiya received falls greater than 100 mm. Parts of southern, and western margin including some pocket areas of Oromiya, eastern margin of SNNPR, parts of southern Oromiya, Gambella, south western part of Benshangul Gumuz and pocket areas of central Amhara received 50-100 mm of rainfall. Most part of SNNPR, parts of southern Oromia and southwestern margin Somali received 25 – 50 mm of rainfall. Most parts of Benshangul Gumuz, some parts of western Oromia and part of southern Somali received 5-25 mm of rainfall. There was little or no rainfall for the rest of the country.

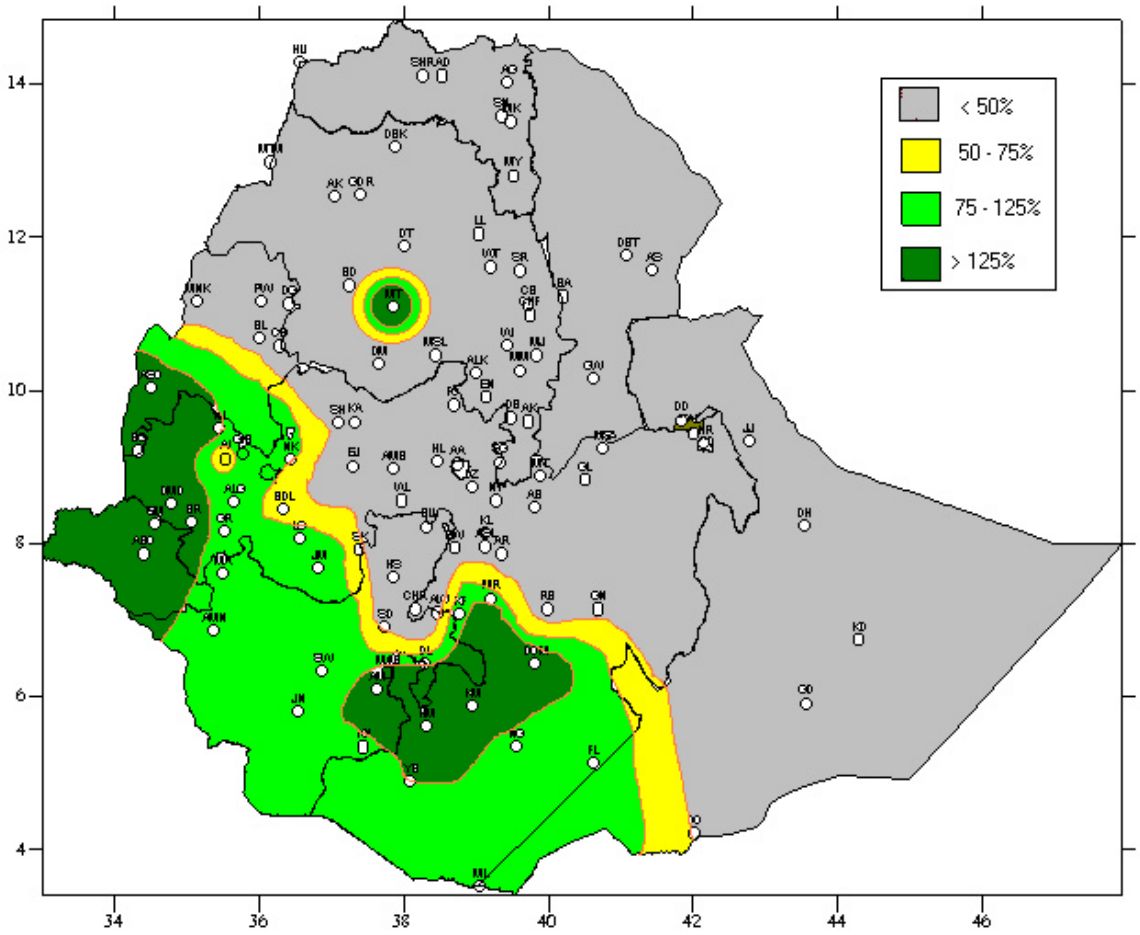


Fig. 2 Percent of normal rainfall (21-3l October, 2005)

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)

Gambela, most parts of southern half of Benshangul Gumuz, most parts of SNNPR, most parts of southern Oromia and pocket area of central Amhara exhibited normal to above normal rainfall. The rest and most parts of the country experienced below to much below normal rainfall.

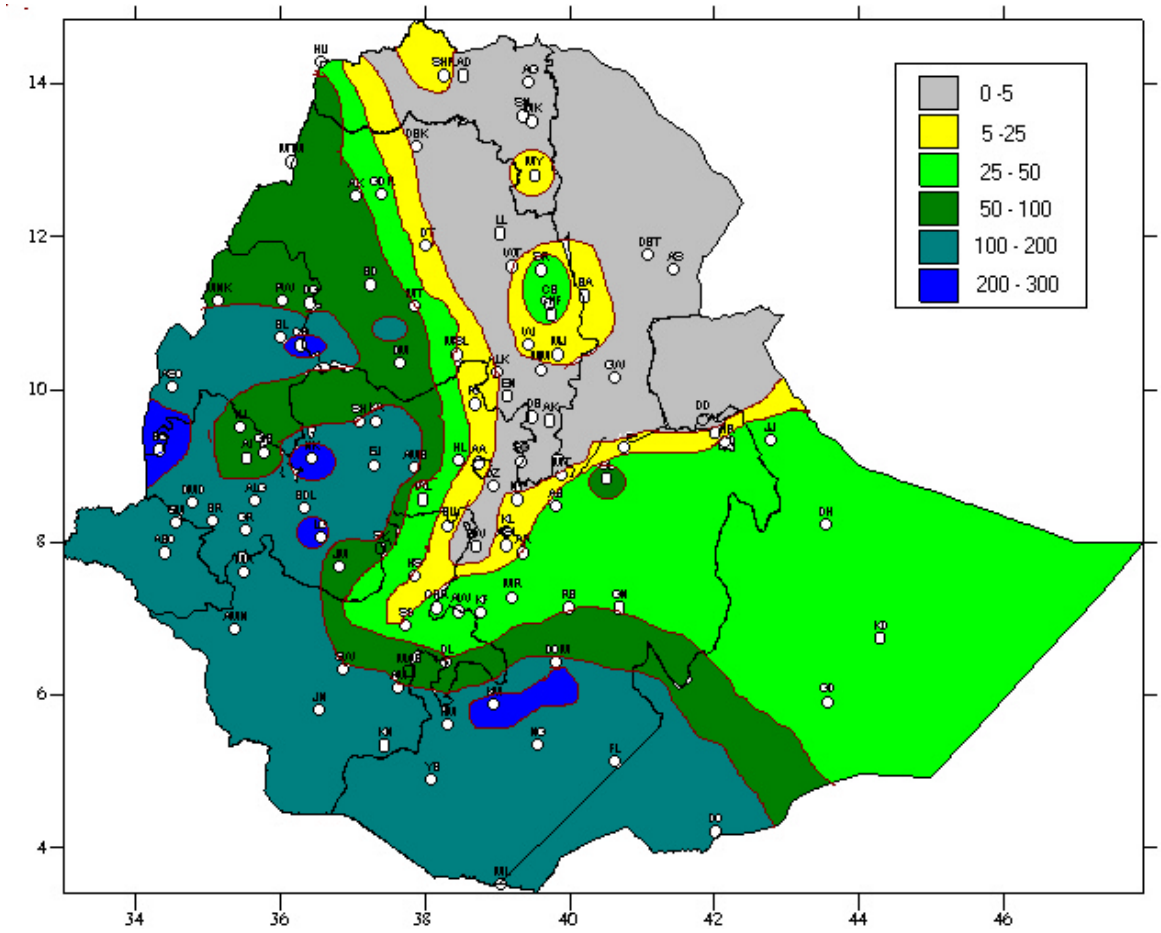


Fig. 3 Rainfall distribution in mm for the month of October 2005

1.2 October 2005

1.2.1 Rainfall distribution (Fig.3)

Some pocket areas of western and southern Oromya and pocket areas of eastern parts of Benshangul-Gumuz received falls greater than 200 mm. Most parts of southern and Western Oromya, Benshngul-Gumuz, SNNPR, Pocket areas of central Amhara received falls 100 – 200 mm of rainfall. Most parts of Amhara, western margin of Tigray, few areas of western and central Oromya, north and parts of northeastern SNNPR, parts of southwestern Somali received 50 – 100 mm of rainfall. Pocket areas of eastern, few areas of northern and central parts of Amhara, northern and eastern parts of SNNPR, parts of western Tigray, few areas of central and most parts of eastern Oromiya and most parts of Somali received falls 25-50 mm. Few areas of northern, central and some pocket areas of eastern Amhara, few areas of northeastern SNNPR, few areas of central Oromya, pocket areas of Afar, pocket areas of South and northern Tigray exhibited 5 – 25 mm of rainfall. There was little or no rainfall for the rest of the country.

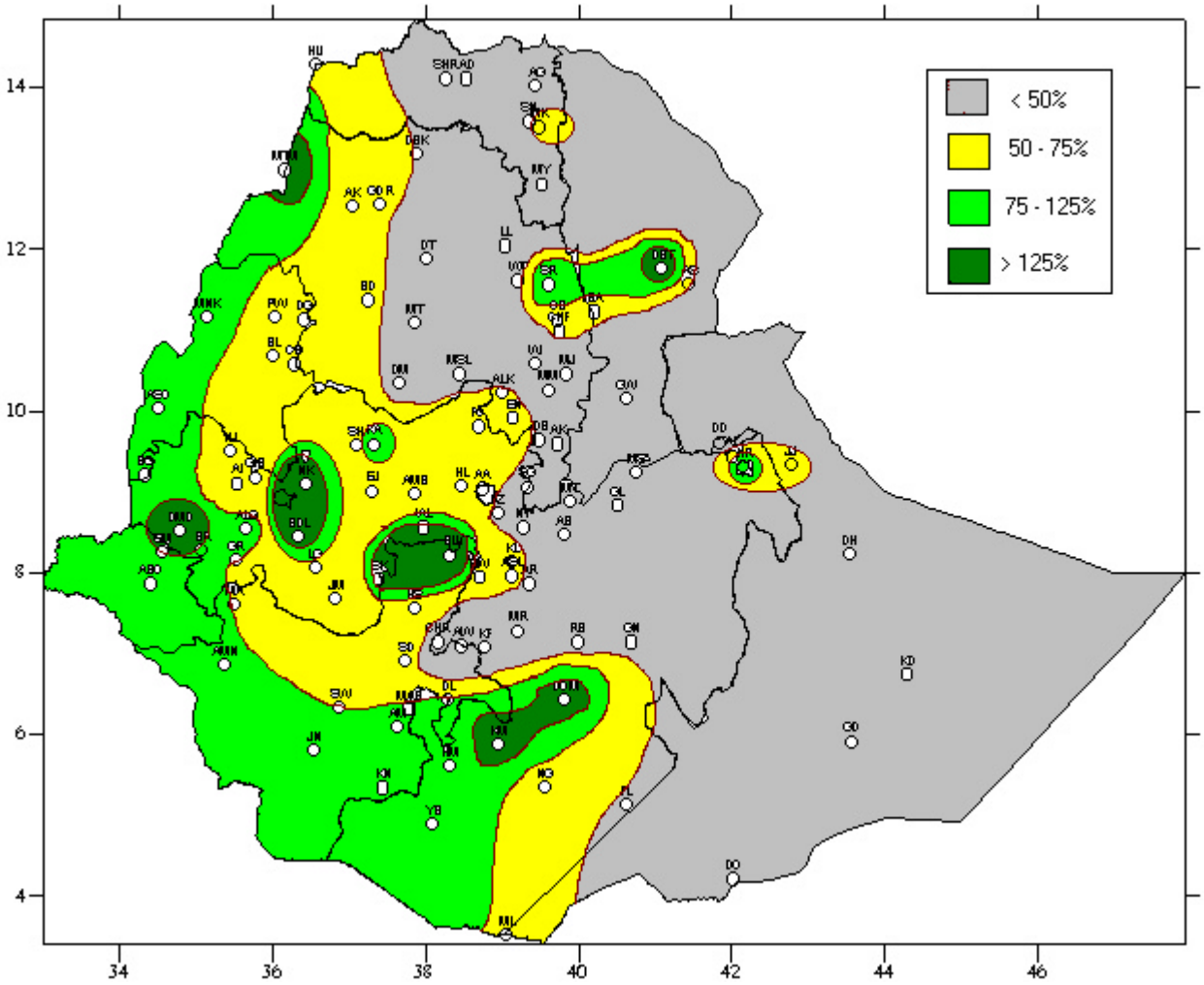


Fig. 4 Percent of Normal Rainfall for the month of October 2005

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)

Pocket areas of eastern and northwestern Amhara, most parts of western half of Benishangul Gumuz, western margin, pocket areas of western, central, parts of southern and eastern Oromiya, most parts of SNNPR and pocket areas of Afar received normal to above normal rainfall. The rest and most parts of the country exhibited below to much below normal rainfall.

1.3 TEMPERATURE ANOMALY

Some areas of central (Fitche, Debre Zeit, Debre Birhan and Mehal Meda), eastern (Alemaya), northern (Adigrat) and north-eastern (Wegel Tena) highlands exhibited extreme minimum temperature less than 5°C lowering up to 1.5°C.

2. WEATHER OUTLOOK

2.1 For the first dekad of November 2005

The wet weather activity is expected to continue across southern and western Oromya, Benshangul – Gumze, Gammbela and SNNPR regions. As a result, some places of these regions will get near normal rains. Nevertheless, deficient rainfall will persist across, Somali regions. Moreover, dry weather conditions is expected to dominate much of northern, northeastern, central and eastern portion of Ethiopia while occasional rain showers is likely to fall over western Amhara

2.2 For the month of November 2005

Dry windy and chilly weather conditions normally dominated over northern half of the country including the highlands of central and eastern Ethiopia. In the coming month, the Bega`s dry weather patterns are highly likely to prevail across many portions of Ethiopia. However, occasional rain showers are expected to fall for few days over northern, northeastern, central and eastern regions while there is high chance of getting better rains over west, southwest and southern Ethiopia. Furthermore, southeastern lowlands will get light rain showers despite the rain will be below normal at many places. Thus, deficient rains are anticipated to persist over southeast low lands. On the other hand, near normal rain is predicted over southern and eastern Oromya, SNNPR, Gambela and Benshangul-Gumuz regions

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Generally the performance of crops was in a good shape in most parts of Meher growing areas during the month under review. Harvest and post harvest activities were under way in some areas of central, western and northeastern parts of the country. Some areas like Dolo Mena, Fitche, Assossa, Limu Genet, Shola Gebeya and Wegel Tena reported slight pest and disease damage on cereal, pulses, and oil crops. Besides slight crop damage due to water stress has been observed in some areas of western Oromiya like Bedelle and Limu Genet. With regard to extreme minimum temperature some areas of central (Fitche, Debre Zeit, Debre Birhan and Mehal Meda), eastern (Alemaya), northern (Adigrat) and north-eastern (Wegel Tena) highlands exhibited extreme minimum temperature less than 5°C lowering up to 1.5°C which can have negative impact on the normal growth and development of the plant. In accordance with the crop phenological report (21-31 October, 2005) harvest of maize and beans was under way in some areas of western Oromiya, eastern Amhara and some areas of northern SNNPR. Maize was at wax and full ripeness stage in some areas of western Amhara like Dangila, eastern Amhara like Bati and Majete including western Oromiya like Dembi Dolo and Aira. It was at flowering and tasseling stage in some areas of eastern Amhara (Shola Gebeya) and southern

midlands of Oromiya (Dolo Mena). Teff was at ripeness stage in some areas of northeastern SNNPR and western Oromiya (Bedelle and Sekoru) while at tasseling and flowering stage in some areas of

northwestern (Dangila, Bullen and Mota), western (Assossa), northeastern highlands (Fiche and Bati) and central (Kachise). Sorghum was at ripeness stage in western Oromiya (Dembi Dolo and Nedjo) while at flowering stage in some areas of western Oromiya (Aira and Alge) and eastern Amhara (Majete). Wheat was at full ripeness stage in some areas of northern Oromiya while at earing and flowering stage in some areas of western (Dembi Dolo), eastern and southeastern Amhara (Wegel Tena and Shola Gebeya). Millet was at flowering stage in some areas of western Oromiya (Nedjo, Aira and Limu Genet) and northwestern Benishangul Gumuz (Bullen). Beans and peas are at flowering and ripeness stages in some areas of eastern Amhara like Wegel Tena, respectively. Nug was at flowering stage in some areas of southwestern Benishangul Gumuz (Assossa) and western Oromiya (Limu Genet). Assossa reported slight crop damage due to insect and disease on teff and nug crops respectively. Shola Gebeya and Fiche reported slight maize crop damage due to insect pest. Limu Genet and Bedelle reported slight wilting due to moisture stress on cereal crop like teff and millet as well as oil crop like nug.

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING MONTH

The anticipated dry weather condition over most parts of the country would favor the on going harvest and post harvest activities in many parts of Meher growing areas. Nevertheless, the expected occasional rain showers for few days over northern, northeastern, central and eastern regions of the country would have negative influence on harvest and post harvest activities in areas where there is no proper storage system. Thus the concerned personnel should undertake proper precaution ahead of time in order to minimize the effects of adverse weather condition. The anticipated persistence deficient rains over southeastern lowlands would exacerbate the prolonged dry situation observed since the on set of the season. Therefore proper attention should be given to design appropriate strategies to tackle and minimize the risk. On the other hand the expected near normal rains over southern and eastern Oromiya would favor the availability of pasture and drinking water. However proper attention should be given to strengthen the existing water harvesting techniques to exploit the expected better situation appropriately.

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

	Stations	Region	A/ rainfall	Normal	%of Normal	Eto mm/day	Monthly Eto	Moisture status
1	**Adigrat**	**TIGRAI**	1	20.2	3.5	3.62	112.22	VD
2	**Mekele**		3	6	50.0	5.08	157.48	VD
3	**Michew**		22	49.6	43.3	3.5	108.5	D
4	**Senkata**		0	28.4	0.0	NA	NA	NA
5	**Shire**		6	29.6	18.9	4.54	140.74	VD
1	**Assayta**	**AFAR**	0	6.3	0.0	6.26	194.06	VD
2	**Dubti**		20	8.3	242.2	5.98	185.38	D
1	**Bahirdar**	**AMHARA**	53	96.3	54.8	4.29	132.99	MD
2	**Bati**		18	30.3	57.8	3.79	117.49	D
3	**Bullen**		112	159.7	69.9	3.16	97.96	H
4	**Combolcha**		26	36.4	70.6	3.49	108.19	D
5	**D.Birhan**		2	21.4	9.3	3.81	118.11	VD
6	**D.Markos**		90	81.5	110.7	3.74	115.94	M
7	**D.Tabor**		5	81.1	6.2	NA	NA	NA
8	**Dangla**		52	81.9	63.6	3.3	102.3	M
9	**Enwary**		4	4	100.0	4.5	139.5	VD
10	**Gonder**		43	71.5	59.9	4.04	125.24	MD
11	**M.Meda**		4	30.3	12.2	NA	NA	NA
12	**Majete**		9	41.6	22.4	NA	NA	NA
13	**Metema**		66	43.3	152.9	4.11	127.41	M
14	**Mota**		195	NA	NA	3.95	122.45	H
15	**Lalibela**		2	10.9	13.8	3.68	114.08	VD
16	**Sirinka**		36	47.1	77.1	3.77	116.87	MD
17	**S.Gebeya**		3	28.9	9.7	3.82	118.42	VD
18	**Woreilu**		1	15.2	6.6	4.4	136.4	VD
19	**Wegeltena**		3	8.2	31.7	3.76	116.56	VD
1	**Abomsa**	**OROMIYA**	22	76.7	28.3	3.55	110.05	D
2	**Aira**		69	135	51.0	3.31	102.61	M
3	**Alemaya**		17	45.1	37.7	3.92	121.52	D
4	**Alge**		133	154.3	86.3	NA	NA	NA
5	**Bedelle**		138	129.3	107.0	NA	NA	NA
6	**Bui**		16	11	141.8	NA	NA	NA
7	**D.Dollo**		129	96.4	133.3	3.09	95.79	H
8	**D.Zeit**		0	21.5	0.0	4.95	153.45	VD
9	**D. Mena**		234	154.1	151.8	NA	NA	NA
10	**Fitche**		4	3.6	111.1	3.94	122.14	VD
11	**Gelemso**		56	90.6	61.6	3.44	106.64	M
12	**Gimbi**		79	116	68.3	3.61	97.65	M
13	**Gore**		170	194.3	87.5	3.15	87.11	H
14	**H.Mariyam**		139	141.5	98.2	2.81	109.12	H
15	**Jimma**		68	101.5	67.3	3.52	109.12	M
16	**K.Mengist**		276	183.1	150.8	2.97	92.07	H
17	**Kachise**		126	110.7	114.2	NA	NA	NA

18	**Kulumsa**		19	36.4	52.7	4.64	143.84	D
19	**Limugent**		216	188.3	114.8	3.81	118.11	H
20	**Meisso**		3.4	4.2	81.0	4.68	145.08	VD
21	**Metehara**		0	21.7	0.0	5.49	170.19	VD
22	**Nazreth**		6	29.8	20.1	5.67	170.19	VD
23	**Neghele**		100	161.9	61.9	4.19	129.89	M
24	**Nedjo**		75	112.3	67.0	3.06	129.89	M
25	**Nekemte**		220	149.5	147.0	3.41	105.71	H
26	**Robe(Bale)**		37	97	37.9	3.31	102.61	MD
27	**Sekoru**		112	64.5	172.9	3.74	115.94	M
28	**Shambu**		59	81.9	72.0	3.73	115.63	M
1	**A.Minch**	**SNNPR**	111	119.8	93.0	3.99	123.69	M
2	**Awassa**		27	84.3	31.6	3.8	117.8	D
3	**Hosaina**		38	71.4	53.2	3.9	120.9	MD
4	**Jinka**		105	136.7	77.1	3.43	106.33	M
5	**M.Abay**		76	5.8	1313.0	4.38	135.78	M
1	**Assosa**	**B/GUMUZ**	164	132.1	123.9	3.34	103.54	H
2	**Chagni**		246	NA	NA	3.14	97.34	H
3	**Mankush**		73	NA	NA	3.58	110.98	M
1	**A.A.Obs.**	**A.A**	29	41.1	70.6	3.5	105	MD
1	**Diredawa**	**D.D**	0	255	0.0	4.5	139.5	VD
1	**Harar**	**Harai**	34	42.4	79.5	3.82	118.42	MD

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.

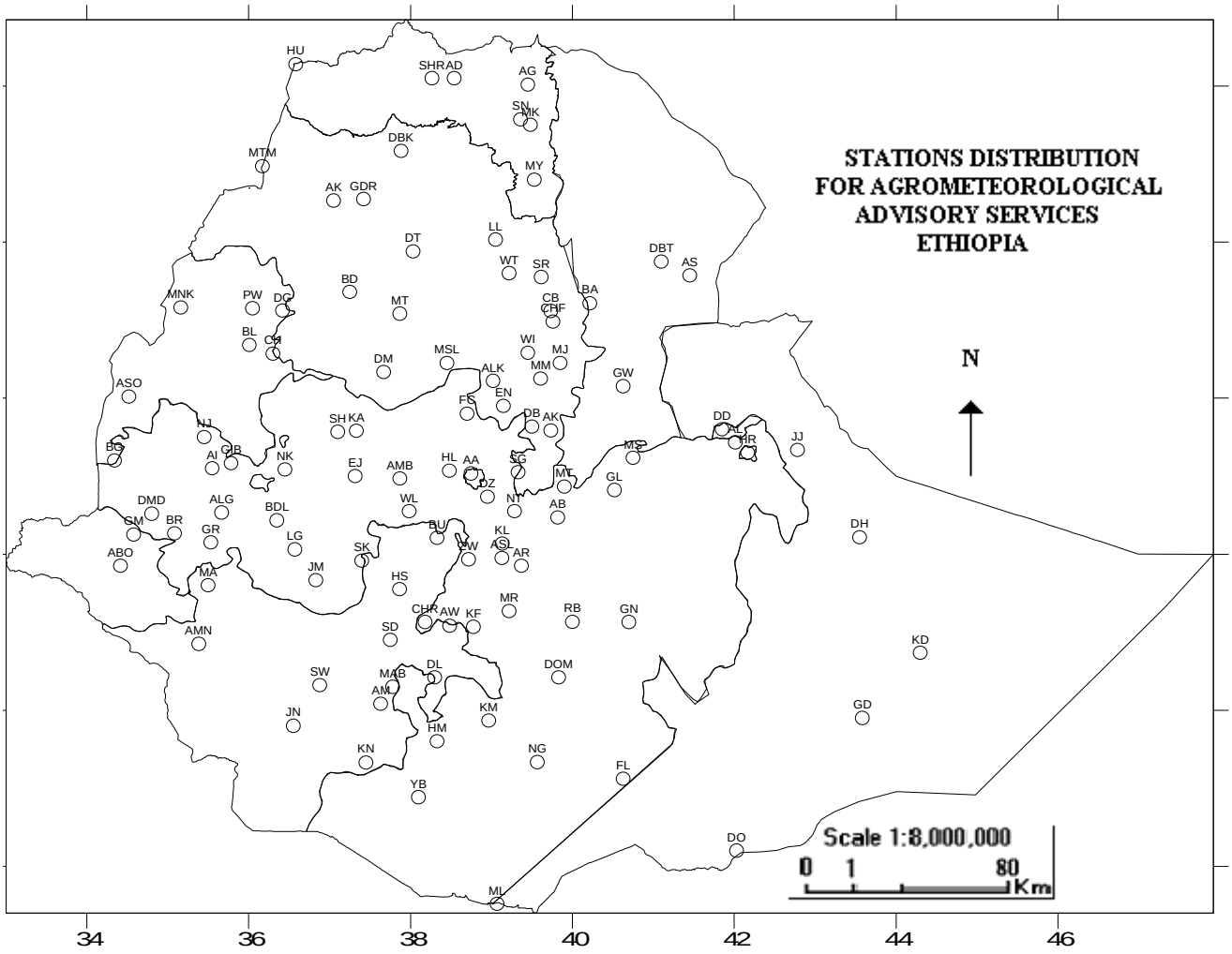
DEKAD: - First or second ten days or the remaining days of a month.

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		