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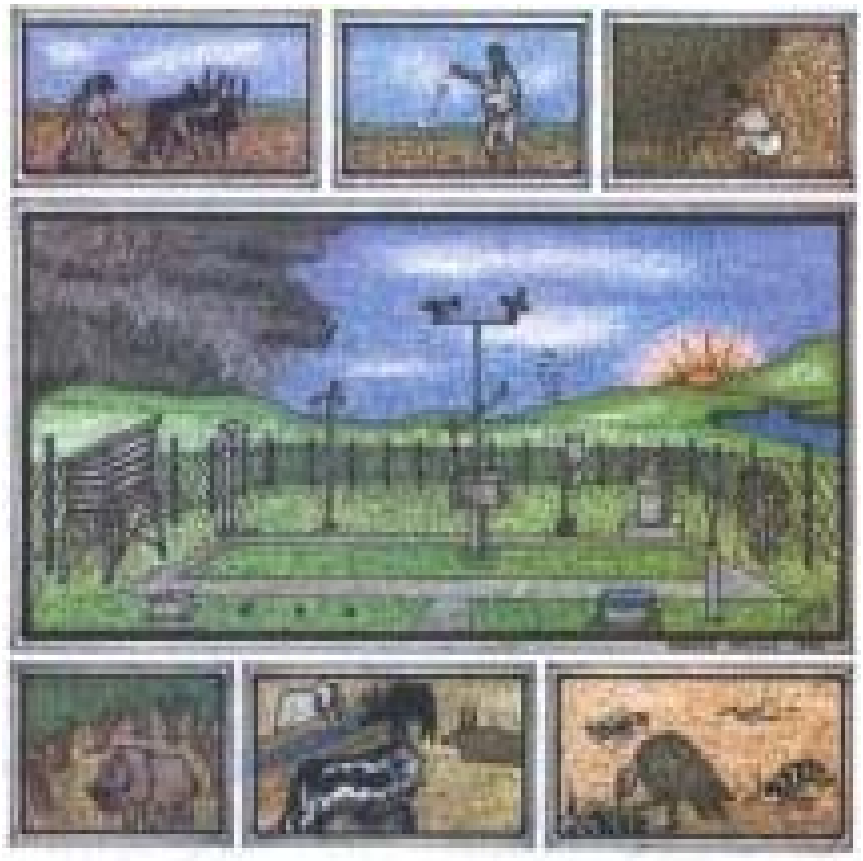

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FORE WARD

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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BEGA 2005/06
SUMMARY

Normally the season Bega is characterized with sunny and dry weather condition with occasional falls. It extends from October to January. On the other hand, it is a small rainy season for southern and southeastern lowlands. Harvest and post harvest activities are the major practices over most parts of Meher growing areas. It is a cropping time for southern and southeastern lowlands of agro pastoral areas. Besides it is time to perform water-harvesting activities for pastoral and agro pastoral areas of southern and southeastern lowlands. The weather situation could favour the outbreak of pests if there is favorable environment, susceptible host and the pest itself (disease triangle). The dry and windy Bega's weather situation is favorable for the occurrence and spread of fire. Temperature is the most limiting factor during the Bega season. There fore there is a possibility of frost hazard during the season, mainly over northeastern, central, eastern and southern highlands.

During the month of October 2005 the observed humid and moist moisture status in most parts of Meher growing areas (Figure 1) favored Meher crops. As the result the performance of crops were in a good shape. Harvest and post harvest activities were under way in some areas of central, western and northeastern parts of the country. Some pocket 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. Slight crop damage due to water stress has been observed in some areas of western Oromiya like Bedelle and Limu Genet. Besides southeastern and parts of southern pastoral and agro pastoral areas exhibited deficient moisture status during the month under review. 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 the areas.

During the month of November 2005 most part of the country exhibited dry and sunny Bega's weather condition. As a result harvest and post harvest activities were under way in most parts of the country as per normal condition. Nevertheless the observed occasional falls particularly over most parts of central highlands resulted in crop damage in some areas like Hosaina, Majete, Chefa, Bedelle and Alge. It could also have negative impact on post harvest activities in areas where there is no proper storage facilities and appropriate post harvest management by causing post harvest pests. On the other hand the wet condition could have positive contribution in areas where crops are not attaining maturity. It could also favor the availability of pasture and drinking water in some areas of pastoral and agro pastoral areas of southern Ethiopia to some extent. Nevertheless the cumulative condition was deficient particularly in southern parts of Somali (Figure 2). In case of extreme minimum temperature the intensification of cold weather got strengthened towards the last week of the month. As the result some areas exhibited extreme minimum temperature lowering up to –3.5°(Alemaya) during the third dekad of the month. Besides, some areas of central highlands experienced extreme minimum temperature less than 5°C for 6-10 consecutive days which can cause crop damage in terms of optimal temperature requirement of the plant. Assosa reported slight bird damage on sorghum crop. Shambu reported medium field condition on wheat crop due to severe weed infestation.

During the month of December 2005 the dry and windy Bega's weather condition favored harvest and post harvest activities in most parts of the country where the activities are under question during the month under review. On the other hand the observed deficient moisture particularly during the third dekad of the month in some areas of western and northeastern highlands could have negative impact on land preparation to some extent. Moreover the over all deficient moisture condition during the month (Figure 3) could affect the water requirements of perennial crops and bushes including affecting the availability of drinking water in pastoral and agro pastoral areas. Concerning to the extreme minimum temperature some areas of northern, central, southern and eastern highlands exhibited extreme minimum temperature less

than 5°C for 20- 28 days. Among the reporting stations Addis Ababa (BES), Fitche, Adigrat, Dangla, Wegel Tena and Alemya exhibited less than 5° C for 24, 24, 26, 26, 27 and 28 days respectively during the month. Thus this condition could have negative impact on the normal growth and development of existing plants.

During the month of January 2006 with the exception of little rainfall observed in some areas of South Tigray, eastern Amhara, central Oromiya, SNNPR, pocket areas of northern Somali and Benishangul Gumuz during the third dekad of the month, it has been a dry spell in most parts of the country throughout the month (Figure 4). Thus the observed deficient condition could have negative impact on the early season's agricultural activities in areas like South Tigray, eastern Amhara and central parts of SNNPR where Belg activities start earlier (December –January) under normal circumstance. Besides, the observed below normal rainfall could also have negative impact over western Oromiya, northern SNNPR and Gambela (none Belg growing areas) in areas where their land preparation and sowing time is at this time of the year. With regard to air temperature, the observed extreme maximum temperature greater than 35°C higher up to 41.5°C over Rift Valley areas (Methehara), southeastern lowlands (Gode), northwestern lowlands (Pawe, Metema and Mankush) including western (Gambela) could have negative impact on the normal growth and development of plant.

Pursuant to the crop phenological reports (NMA crop phenological Report) of the Bega season 2005/06, though the crop damage due to adverse conditions like frost occurrence, heavy falls, occasional falls and pest out break observed in some pocket areas the overall crop condition was in a good shape in most parts of Meher growing areas. Moreover, as MoARD (Agricultural Bulletin Vol 3 No 4/98 E.C.) has pointed out no significant crop damage has been observed during the month of October due to occasional falls. With regard to pest and disease outbreak, the occurrence of Quelea quelea reported in some sensitive lowland areas of the country (some areas of Amhara, Oromiya, SNNPR and Somali). However due to the effective control measures taken by MoARD no significant crop damage has been recorded during the month of October. On the other hand southeastern and parts of southern pastoral and agro pastoral areas exhibited deficient moisture condition throughout the season (Figure 1,2,3 and 4). Besides, the NDVI pictures (United States Geological Survey) showed scares vegetation cover during the season over most parts of southern and southeastern lowlands. As the Deyr/Karan 2005 pastoral and agro pastoral needs assessment indicates Deyr rains have failed in Gode, Afder and Liban zones in particular, and in all Deyr receiving zones in the Somali region, in general. As the result the performance of food security situation was poor (FEWS NET Alert Status December 2005) throughout the region due to the failure of Deyr rain. Regarding the extreme minimum temperature situation, some areas of northern (Adigrat), central (Debre Birhan, Mehal Meda, Fitche and Debre Ziet) and eastern highlands (Alemaya) exhibited extreme minimum temperature less than 5° C (repeatedly) lowering up to –3.5(Alemaya) during the season under review. Thus, this condition could have negative impact on the normal growth and development of plants.

Generally from the above agro climatic analysis we can confirmed that the overall crop condition over most parts of Meher growing areas was in a good shape thereby the expected performance of yield would be better as compared to last year. On the other hand the deficient moisture condition observed in most parts of pastoral and agro pastoral areas of southern and southeastern Ethiopia resulted in poor performance of food security particularly in most parts of Somali Region.

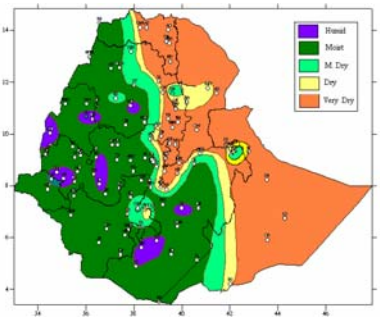


Figure 1 Moisture status for the month of October 2005

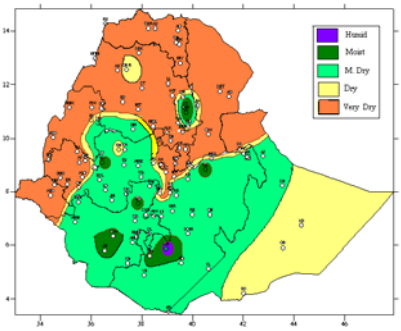


Figure 2 Moisture status for the month of November 2005

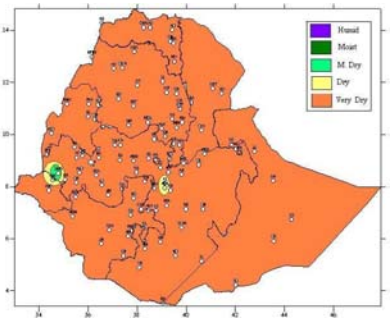


Figure 3 Moisture status for the month of December 2005

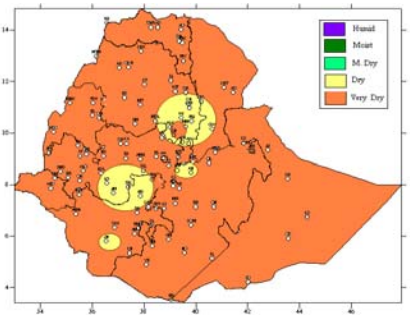


Figure 4 Moisture status fort the month of January 2006

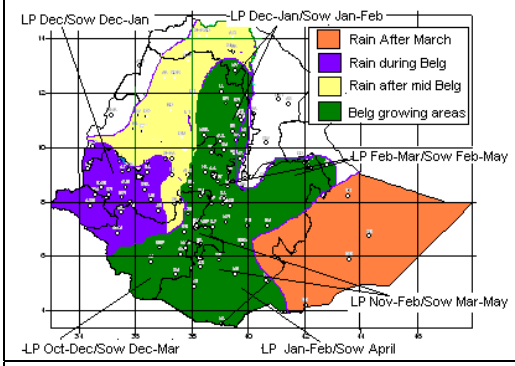


Figure 5 Belg growing areas of the country (the dark green shaded area)

The anticipated erratic and deficient rainfall distribution during the season in most parts of Belg growing areas would have negative impact on the water requirement of Belg crops in Belg growing areas and Gena season crops in agro pastoral areas of southern Ethiopia like Yabello, Negelle and Moyale as well. Besides, it would result in shortage of drinking water and pasture in the lowlands of pastoral areas. Thus, attention should be given for appropriate water harvesting techniques and other alternative action ahead of time.

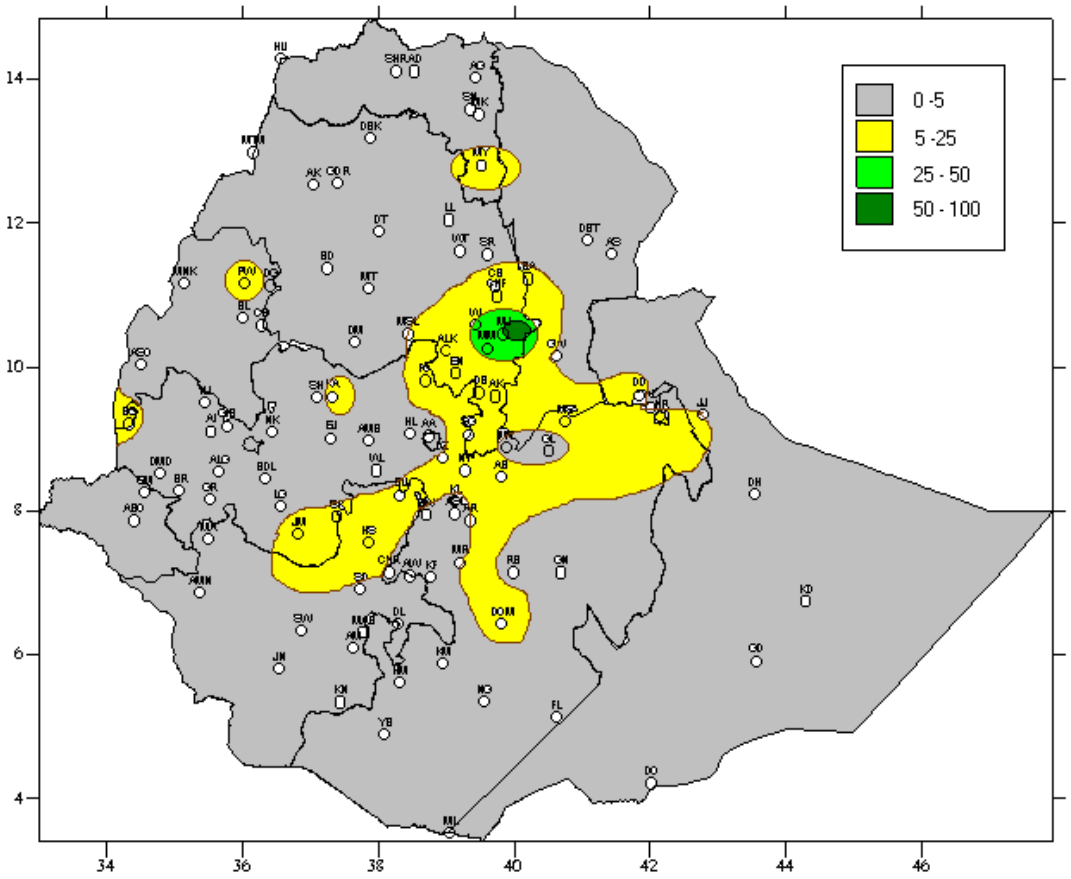


Fig 6 Rainfall distribution in mm (21-31 January 2006)

1. WEATHER ASSESSMENT

January 21-31, 2006

1.1.1 Rainfall Amount (Fig 6)

Better rainfall was observed over pocket areas of southern Amhara ranging from 25-50 mm of rainfall. Most parts of southern Amhara, eastern, central and some parts of southern Oromya, Pocket areas of western Oromya, northern Benshangul-Gumuz and much of northern SNNPR and southern Tigray received rainfall 5 - 25 mm. There was little or no rainfall for the rest parts of the country.

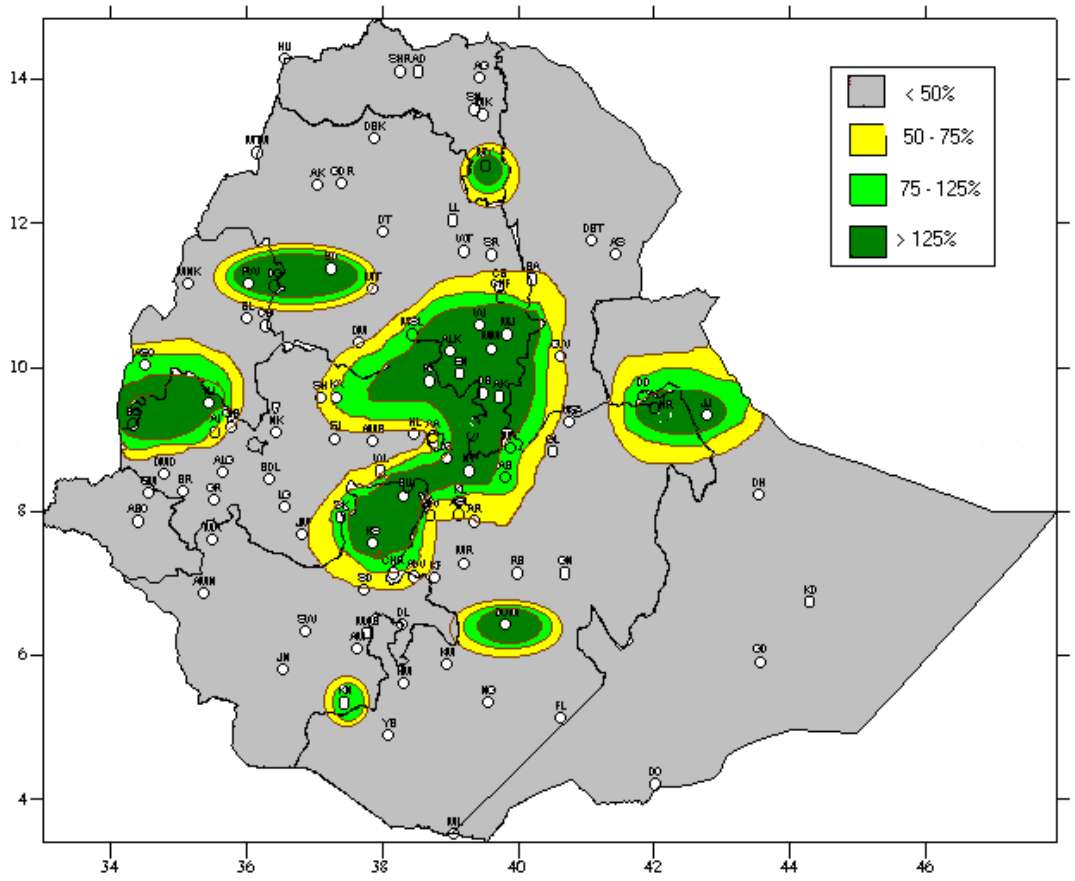


Fig 7 Percent of normal (21-31 January 2006)

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 7)

Pocket areas of southern Tigray, most parts of southern Amhara, pocket areas of western Amhara, some areas of western, central, eastern and southern Oromya and pocket areas of northern Somali experienced normal to above normal rainfall while the rest parts of the country received below to much below normal rainfall.

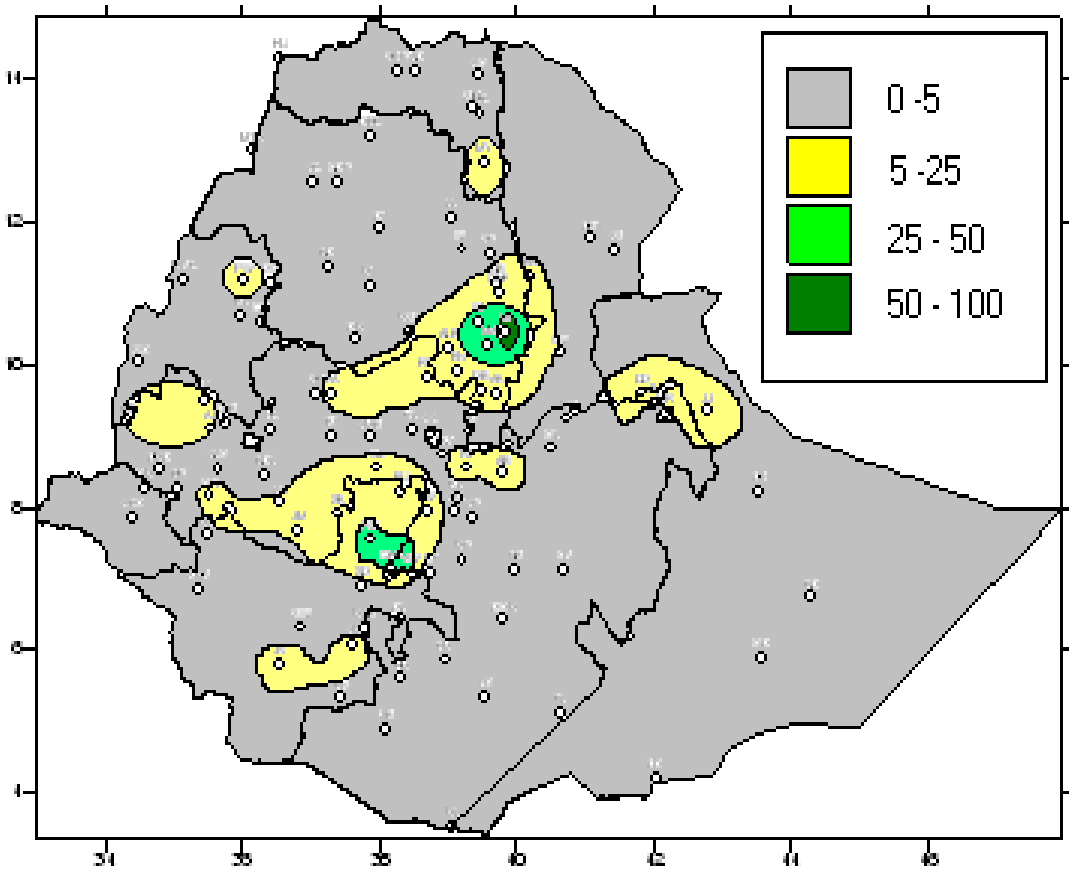


Fig. 8 Rainfall Distribution in mm for the month of January 2006

1.2 January 2006

1.2.1 Rainfall Amount (Fig. 8)

Pocket areas of southern Amhara and Oromya received rainfall 50-100mm. Pocket areas of southern Tigray, some areas of southern Amhara, western, central and southeastern Oromya , pocket areas of Benshagul - Gumuz northern and southern SNNPR and northern Somali experienced rainfall 5-25mm. There was little or no rainfall for the rest parts of the country.

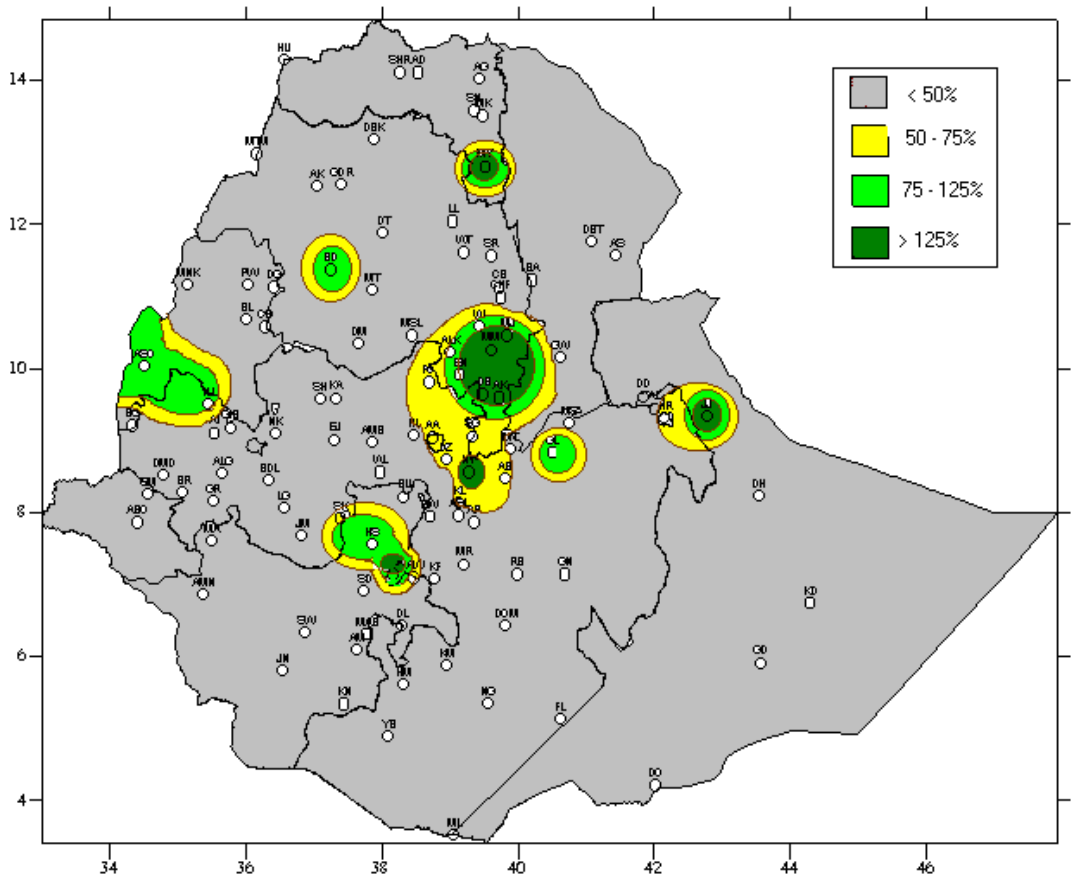


Fig. 9 Percent of Normal Rainfall for the month of January 2006

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. 9)

Pocket areas of South Tigray, southern Amhara, western, eastern Central and southern Oromya, northern SNNPR, southern Benshngul-Gumuz and northern Somali, received normal to above normal rainfall while the rest parts of the country experienced below to much below normal rainfall.

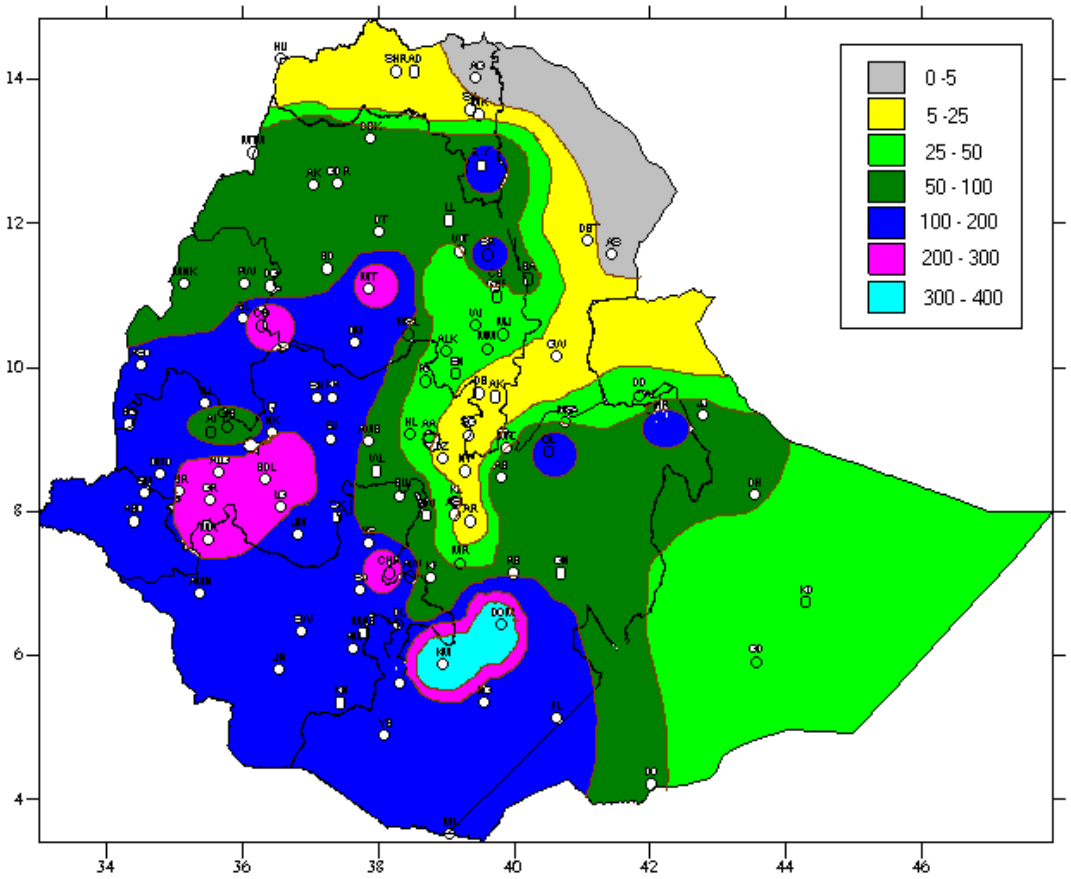


Fig. 10 Rainfall Distribution in mm for Bega 2005/06

1.3 Bega 2005/06

1.2.1 Rainfall Amount (Fig. 10)

Pocket areas of southern Oromiya received falls greater than 300mm. Pocket areas of eastern Benishangul Gumuz, central Amhara, north eastern SNNPR and pocket areas of western and southern Oromiya recorded rain fall amount ranging from 200-300mm. Gambela, most parts of SNNPR. Some areas of western and southern Oromiya including pocket areas of eastern Oromiya, some areas of Benishangul-Gumuz, southern Amhara and pocket areas of southern Tigray experienced rainfall amount ranging 100-200 mm. Most parts Amhara, parts of Benishangul-Gumuz, some areas of southwestern Somali and Oromiya received rainfall amount ranging from 50-100 mm. Some areas of Tigray, southern Amhara, central Oromiya and much of Somali received 25-50mm of rainfall. Most parts of western Tigray some areas of southern Amhara, some areas of northern Oromiya, most parts of Afar region and parts of northern Somali received 5-25 mm of rainfall. Northeastern Afar region and northeastern tip of Tigray received 0-5 mm of rainfall.

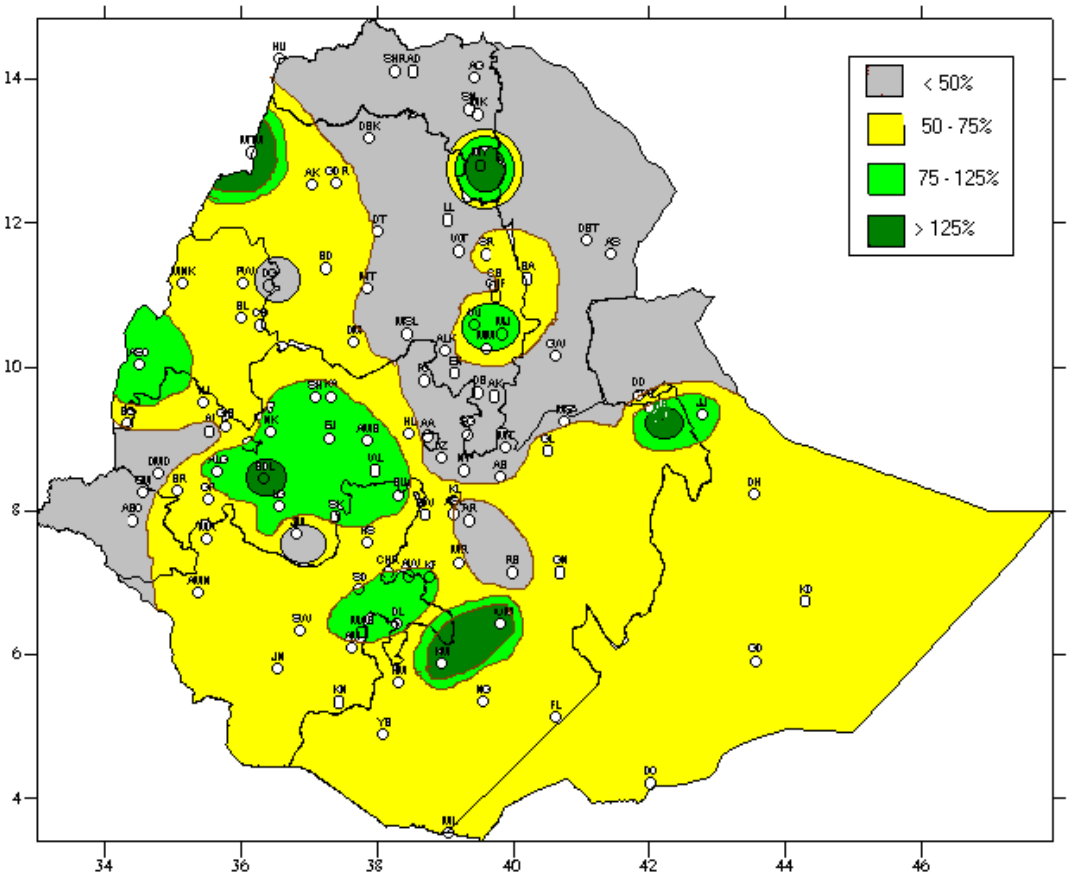


Fig. 11 Percent of Normal Rainfall for Bega 2005/06

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. 11)

With the exception of pocket areas of southern, few areas of eastern and parts of western Oromiya, northwestern tip of Amhara most parts of South Tigray, southwestern Benishangul-Gumuz and few of northeastern SNNPR the rest of the country exhibited below to much below normal rainfall.

1.4 TEMPERATURE ANOMALY

Some areas of northern (Adigrat), central (Debre Birhan, Mehal Meda, Fitche and Debre Ziet) and eastern highlands (Alemaya) exhibited extreme minimum temperature less than 5° C (repeatedly) lowering up to –3.5(Alemaya) during the season

2. WEATHER OUTLOOK

2.1 For the first dekad of February 2006

In the coming ten days dry and sunny weather conditions are expected to prevail across the major portions of the country. However, southwest, west south and parts of central Ethiopia will continue to get rain showers for few days. The daytime temperature will continue to raise the low-lying portions of northwest,

west, southeast, northeast as well as the Rift Valley regions. Generally, bellow normal rain is highly likely fall over the major parts of the country.

2.2 For the month of February 2006

An occasional influx of moisture is expected to increase the chance of getting rains across southwest and parts of southern sectors of the country. In line of this some places of SNNPR, southern and western Roomy as well as parts of Gambela and Benishangul Gumuz will get occasional rain showers that might be near normal over isolated places. Similarly, Belg growing areas confined to the Rift Valley and the adjoining escarpment will get rain showers for few days. Furthermore, the presence of cloud coverage is highly likely to produce light rain showers over central Ethiopia and western portion of Amhara. Nevertheless, dry, humid and hot days will predominantly persist for many days than the normal circumstances.

2.3 For the Belg season, 2006

Belg season starts in February and spans through the end of May despite the highly variabilty in intraseasonal rains commonly assumed as the major climatic feature of the season. Indeed Belg is commonly known as main rainy season over southern and southeastern lowlands where the seasonal rains highly benificiary for the availability of pasture and water.

In the coming Belg season, there are high probabilities of getting low rains across Somali and the eastern margin of southern Oromiya. Also, the seasonal rains expected to less performed over the major Belg growing regions that include southern and eastern SNNPR, southern and eastern oromiya, eastern Amhara and southern Tigray. In contrast there are enhanced probabilities of getteing normal to above normal rains across western SNNPR, Gambella, western and western sectors of central Oromiya and Benishangul Gumuz. Yet, near normal weather condition will generally prevail over west and northwestern Ethiopia.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Pursuant to the crop phenological reports (NMA crop phenological Report) of the Bega season 2005/06, though the crop damage due to adverse conditions like frost occurrence, heavy falls, occasional falls and pest out break observed in some pocket areas the overall crop condition was in a good shape in most parts of Meher growing areas. Moreover, as MoARD (Agricultural Bulletin Vol 3 No 4/98 E.C.) has pointed out no significant crop damage has been observed during the month of October due to occasional falls. With regard to pest and disease outbreak, the occurrence of Quelea quelea reported in some sensitive lowland areas of the country (some areas of Amhara, Oromiya, SNNPR and Somali). However due to the effective control measures taken by MoARD no significant crop damage has been recorded during the month of October. On the other hand southeastern and parts of southern pastoral and agro pastoral areas exhibited deficient moisture condition throughout the season (Figure 1,2,3 and 4). Besides, the NDVI pictures (United States Geological Survey) showed scares vegetation cover during the season over most parts of southern and southeastern lowlands. As the Deyr/Karan 2005 pastoral and agro pastoral needs assessment indicates Deyr rains have failed in Gode, Afder and Liban zones in particular, and in all Deyr receiving zones in the Somali region, in general. As the result the performance of food security situation was poor (FEWS NET Alert Status December 2005) throughout the region due to the failure of Deyr rain. Regarding the extreme minimum temperature situation, some areas of northern (Adigrat), central (Debre Birhan, Mehal Meda, Fitche and Debre Ziet) and eastern highlands (Alemaya) exhibited extreme minimum temperature less than 5° C (repeatedly) lowering up to –3.5(Alemaya). Thus, this condition could have negative impact on the normal growth and development of plants.

Generally from the above agro climatic analysis we can confirmed that the overall crop condition over most parts of Meher growing areas was in a good shape thereby the expected performance of yield would be better as compared to last year. On the other hand the deficient moisture condition observed in most parts of pastoral and agro pastoral areas of southern and southeastern Ethiopia resulted in poor performance of food security particularly in most parts of Somali Region.

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING BELG SEASON

Under normal circumstance South Tigray, eastern Amhara, central, eastern and southern Oromiya and most parts of SNNPR are known as Belg growing areas. The contribution of Belg rainfall is ranging from 5-30% over South Tigray, eastern Amhara, central, eastern and southern Oromiya where as 30-60% over SNNPR from annual total crop production of the areas. Normally Belg Growing areas of South Tigray, North Shewa, East and west Harargie, Arsi, Bale, North and South Wello, Borena and SNNPR (Kembata, Hadiya, Wolayta, Gurage, Keffa and Bench) start their land preparation and sowing activities during December to February. Long cycle crop growing areas of western Amhara, Benishangul Gumuz, western Oromiya and parts of SNNPR also use Belg rainfall particularly towards the second half of the season. It is the time for water harvesting over pastoral and agro pastoral areas of southern and southeastern Ethiopia.

With regard to Belg 2006 outlook the expected erratic onset of the coming season would have negative impact on the early season's agricultural activities in areas where Belg activities start earlier under normal circumstance. Therefore appropriate measures should be applied ahead of time.

The anticipated erratic and deficient rainfall distribution during the season in most parts of Belg growing areas would have negative impact on the water requirement of Belg crops in Belg growing areas and Gena season crops in agro pastoral areas of southern Ethiopia like Yabello, Negelle and Moyale as well. Thus attention should be given for proper water harvesting techniques and other alternative action ahead of time.

The anticipated erratic rainfall distribution over some lowland areas would also favor the outbreak of pest and diseases. Therefore, the concerned personnel should undertake appropriate precaution to take judicious pest control measures ahead of time to minimize the possible risk due to adverse weather condition.

The expected less performance of April rainfall and 30- 45 % probability of below normal rainfall over western Amhra, northern half of Benishangul Gumuz, parts of eastern and southern Oromiya most parts of Tigray and northern highlands of Somali during the season would also have negative influence on the performance of long cycle crops like maize and sorghum. Therefore, appropriate alternate actions should be designed in terms of crop type and variety selection (drought resistance and short season variety of crops).

The expected moist condition and 80-85 % probability of rainfall over central and western Oromiya, most parts of northern half of SNNPR, Southern Benishangul Gumuz and Gambela particularly during the month April would favor long cycle crops like maize and sorghum.

With regard to pastoral and agro pastoral areas of south and southeastern lowlands the anticipated deficient and erratic rainfall particularly over parts of lowlands of eastern Oromiya and most parts of Somali during the coming April would have critical negative effect on the availability of pasture and drinking water. Thus, better water harvesting mechanisms should be developed in the areas in order to mitigate the effect of water shortage. Besides attention should be given ahead of time for better disaster prevention and preparedness measures.

The expected higher maximum temperature over the lowlands would increase the rate of evapotranspiration there by negatively affecting the normal growth and development of plants.

Last but not least using of seasonal weather forecast according to the specific conditions of Belg growing areas judiciously has paramount importance in order to take appropriate measures. Thus, the concerned personal should give attention in this mater and interpret and analyse the values according to the specific areas of interest. Besides, considering other conditions like the on set of the season, the distribution of rainfall throughout the season and cessation of rainfall in terms of crop type, phenological phase of the crop, soil types of the area, etc. is very important in order to use the information properly.

Table 1. Climatic and Agro-Climatic elements of different stations for the month of January 2006

	Stations	Region	A/ rainfall	Normal	%of Normal	ETo mm/day	Monthly ETo	Moisture status
1	Adigrat	TIGRAI	0	8.7	0.0	3.39	105.1	VD
2	Mekele		0	2.4	0.0	5.23	162.1	VD
3	Michew		19.7	12.3	160.2	3.18	98.6	D
4	Senkata		0	NA	NA	NA	NA	NA
5	Shire		0	3.2	0.0	4.32	133.9	VD
1	Dubti	AFAR	0	4.1	0.0	NA	NA	NA
1	Bahir Dar	AMHARA	3.1	2.6	119.2	3.92	121.5	VD
2	Bait		15.5	41.3	37.5	3.57	110.7	D
3	Balata		2.8	NA	NA	NA	NA	NA
4	Bullpen		0	NA	NA	3.73	115.6	VD
5	Combolcha		8.8	27.8	31.7	3.47	107.6	VD
6	Chefa		18.5	58.6	31.6	4.16	129.0	D
7	D.Birhan		17.3	12.1	143.0	4.56	141.4	D
8	D.Markos		3.5	15.6	22.4	NA	NA	NA
9	D.Tabor		0	8.8	0.0	NA	NA	NA
10	Dangla		0.9	4.6	19.6	3.51	108.8	VD
11	Enwary		9.8	NA	NA	4.97	154.1	VD
12	Gonder		0	3.6	0.0	4.57	141.7	VD
13	M.Meda		25	18.2	137.4	NA	NA	NA
14	Majete		56.3	27.6	204.0	NA	NA	NA
15	Metema		0	1.2	0.0	4.8	148.8	VD
16	Motta		0	NA	NA	4.07	126.2	VD
17	Lalibela		0	3.9	0.0	3.79	117.5	VD
18	S. Gebeya		0	9.8	0.0	3.72	115.3	VD
19	Sirinka		1.6	50.2	3.2	3.6	111.6	VD
20	Wegel Tena		0.6	15.5	3.9	3.72	115.3	VD
21	Were Ilu		26.3	NA	NA	4.65	144.2	D
1	Abomsa	OROMIYA	13	NA	NA	3.45	107.0	D
2	Aira		0	NA	NA	3.28	101.7	VD
3	Alemaya		NA	NA	NA	4.19	129.9	NA
4	Alge		0	17.6	0.0	NA	NA	NA
5	Bedelle		0	11.3	0.0	NA	NA	NA
6	Begi		13.5	NA	NA	NA	NA	NA
7	Bui		18.2	NA	NA	3.06	94.9	D
8	Chira		56	NA	NA	NA	NA	NA
9	D.Dollo		0	11.7	0.0	3.52	109.1	VD
10	D.Mena		12	NA	NA	NA	NA	NA
11	D.Zeit		4.2	9.8	42.9	4.77	147.9	VD
12	Ejaji		1.1	15.2	7.2	NA	NA	NA
13	Fitche		17.5	21	83.3	3.54	109.7	D
14	Gelemso		2.7	17.9	15.1	4.81	149.1	VD
15	Gimbi		0	4.5	0.0	NA	NA	NA
16	Ginir		5.2	19.8	26.3	NA	NA	NA
17	Gore		5.2	40.9	12.7	3.89	120.6	VD

19	**Jimma**		15.5	34.4	45.1	3.19	98.9	D
20	**K.Mengist**		0	19.2	0.0	3.79	117.5	VD
21	**Kachise**		6.5	NA	NA	3.91	121.2	VD
22	**Kulumsa**		3.5	19.5	17.9	4.45	138.0	VD
23	**Lumu Genet**		12	25.2	47.6	3.54	109.7	D
24	**Meisso**		9.2	49.5	18.6	4.52	140.1	VD
25	**Metehara**		0.4	8.4	4.8	5.13	159.0	VD
26	**Moyale**		0.5	16.7	3.0	5.93	183.8	VD
27	**Nazreth**		17.6	11.8	149.2	5.1	158.1	D
28	**Neghele**		0	8.9	0.0	6.1	189.1	VD
29	**Nedjo**		7	7.8	89.7	3.37	104.5	VD
30	**Nekemte**		0.5	10	5.0	3.58	111.0	VD
31	**Robe(Bale)**		2.4	21.5	11.2	4.12	127.7	VD
32	**Sekoru**		22.8	29.8	76.5	3.6	111.6	D
33	**Shambu**		0.5	21.1	2.4	3.83	118.7	VD
34	**Yabello**		1.5	24.1	6.2	NA	NA	NA
35	**Ziway**		1	16	6.3	4.64	143.8	VD
1	**Jijiga**	**SOMALI**	11.5	5.6	205.4	4.21	130.5	VD
1	**A.Minch**	**SNNPR**	11.7	31.3	37.4	4.42	137.0	VD
2	**Awassa**		1.7	46.7	3.6	4.21	130.5	VD
3	**Dilla**		13.5	33.8	39.9	NA	NA	NA
4	**Hosaina**		28.9	27.1	106.6	4.11	127.4	D
5	**Jinka**		16.8	51.7	32.5	4.15	128.7	D
6	**M.Abay**		2.4	NA	NA	5.09	157.8	VD
7	**Mankush**		0	NA	NA	4.26	132.1	VD
8	**Sawla**		4.1	NA	NA	4.17	129.3	VD
1	**Assosa**	**B/GUMUZ**	0.4	0.4	100.0	5.01	155.3	VD
2	**Pawe**		9.2	NA	NA	3.35	103.9	VD
3	**Chagni**		1.1	NA	NA	4.1	127.1	VD
	Sodo		4.4	NA	NA	NA	NA	NA
1	**Gambela**	**Gambela**	0.1	1.6	6.3	NA	NA	NA
1	**A.A.Obs.**	**A.A**	0.7	2.8	25.0	3.42	106.0	VD
2	**A.A. Bole**		2	2.7	74.1	4.84	150.0	VD
1	**Dire Dawa**	**D.D**	10.7	21.7	49.3	3.9	120.9	VD
1	**Harar**	**Harai**	4.5	8.1	55.6	4.14	128.3	VD

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

EFNITION 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.

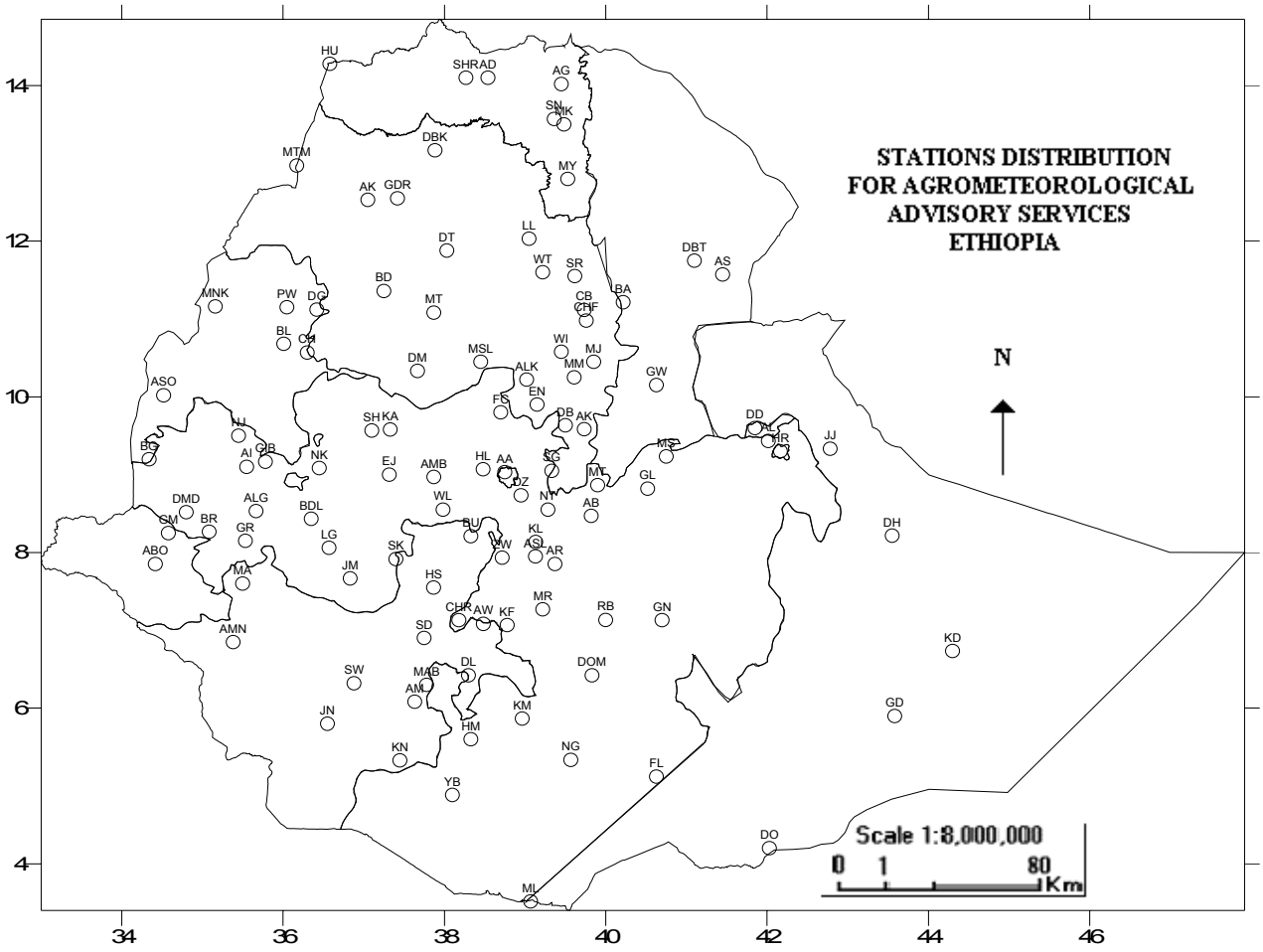
DEKAD: - First or second ten days or the remaining days of a month.

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		