

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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እ.ኤ.አ ፌብሩዋሪ 2008

እ.ኤ.አ በፌብሩዋሪ 2008 የመጀመሪያው አስርተ ቀናት በአብዛኛዎቹ የሀገሪቱ ክፍሎች ላይ መጠነኛ የደመና ሽፋን በመጨመር የተስተዋለ ሲሆን በጥቂት የደቡብ ምዕራብ የመካከለኛው እና የሰሜን ምስራቅ የሀገሪቱ አካባቢዎች አንዳንድ ሥፍራዎች ላይ አነስተኛ ዝናብ ጥሏል። በአጠቃላይ በምዕራብና በመካከለኛው ኦሮሚያ በደቡብ ብሔር ብሔረሰቦች ህዝቦች ክልል እና ምስራቅ አማራ አንዳንድ ሥፍራዎች ላይ ከቀላል እስከ መካከለኛ መጠን ያለው ዝናብ ተመዝግቧል። ይህም ዝናብ በተለይ በልግ አብቃይ ለሆኑ አካባቢዎች በሰሜን ምስራቅ በደቡብ ብሔር ብሔረሰቦች እና ህዝቦች ክልል እንዲሁም በመካከለኛው የሀገሪቱ ክፍሎች ለበልግ የእርሻ ሥራ እንቅስቃሴ ቀደም ብለው የማሳ ዝግጅትና የዘር ጊዜ ለሚካሄዱ ከባቢዎች ጠቀሜታ ይኖረዋል። በተጨማሪም ከደመና ሽፋን መጨመር ጋር ተያይዞ በሀገሪቱ ቆላማ ሥፍራዎች ላይ አንፃራዊ መጨመር ያላቸው ከፍተኛ የሙቀት መጠን በዛ አካባቢ (Evapotranspiration) ትነት በመጨመር በተክሎች ጤናማ ዕድገት ላይ አሉታዊ ተፅዕኖ ሊያሳድር ይችላል። ሙቀት ከጨመረባቸው ቆላማ አካባቢዎች ለመጥቀስ በጋምቤላ፣ በጎዴ እንዲሁም በማንኩሽ (ከ35-40) በዲግሪ ሴልሽስ የሚደርስ ከፍተኛ የሙቀት መጠን ተመዝግቦባቸዋል። በሌላ በኩል የሀገሪቱ ምዕራባዊ ዳርቻዎች እና በአፋር በአመዛኙ ደረቅ ሁኔታ አመዝናባቸው ቆይቷል። ይህም ሁኔታ በአፋር አካባቢ ጥምር ግብርና ለሚካሄዱባቸው ለግጦሽ ሳርና ለመጠጥ ውሀ አቅርቦት አሉታዊ ተፅዕኖ እንደሚኖረው ይታመናል።

እ.ኤ.አ በፌብሩዋሪ 2008 ሁለተኛው አስርተ ቀናት ደረቅና ፀሐያማ የአየር ሁኔታ አመዝና የታየ ቢሆንም በአስሩ ቀናት መጨረሻ ባሉት ጥቂት ቀናት ከመደበኛ ሽፋን መጨመር ጋር በተያያዘ መልኩ የደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፣ ምዕራብና ምስራቅ ኦሮሚያ፣ የትግራይና የአማራ መካከለኛው ክፍል እንዲሁም የመካከለኛው ኦሮሚያ በጥቂት አካባቢዎች ላይ አነስተኛ መጠን ያለው ዝናብ አግኝተው ነበር። በመሆኑም ከየካቲት ወር አጋማሽ ጀምሮ የበልጉን የእርሻ እንቅስቃሴ ለሚጀምሩ የሀገሪቱ በልግ አብቃይ አካባቢዎች እንደ ደቡብ ትግራይ፣ ምስራቅ አምሀራ መካከለኛውና ምስራቅ ኦሮሚያ እንዲሁም የደቡብ ብሔር ብሔረሰቦች ሕዝቦች ክልል ምስራቃዊ አጋማሽ በአስሩ

ቀናት መጨረሻዎቹ የተገኘው አነስተኛ መጠን ያለውን ዝናብ በተወሰነ መልኩ ለበልጉ የእርሻ እንቅስቃሴ የሚያግዝ ሲሆን በአንፃሩ ደግሞ በአስሩ ቀናት አመዝኖ የታየው ፀሐያማና ደረቃማ የአየር ሁኔታ በበልጉ የእርሻ እንቅስቃሴ ላይ አሉታዊ ተፅዕኖ ይኖረዋል። በሌላ በኩል በሰሜን ምሥራቅ፣ በደቡብ ምሥራቅ፣ በደቡብ ምዕራብና በምሥራቅ የሀገሪቱ ቆላማ አካባቢዎች ላይ የቀኑ ከፍተኛ የሙቀት መጠን አንፃራዊ መጨመር ማሳየቱ በአካባቢው የትነት መጠንን ከመጨመሩ ባሻገር በአካባቢዎቹ ከታየው አነስተኛ የእርጥበት ሁኔታ ጋር በመዳመር ለአዝርዕት በሽታና ተባይ መከሰት አስተዋፅዖ ይኖረዋል።

እ.ኤ.አ በፌብሩዋሪ 2008 በሶስተኛው አስርተ ቀናት ከደመና ሽፋን መጨመር ጋር በተያያዘ መልኩ በመሆኑም የደቡብ ምዕራብና በምዕራብ ኦሮሚያ ጥቂት ቦታዎች መጠነኛ ዝናብ ነበራቸው ። ይህም ሁኔታ በደቡብ ምዕራብ ለሚኖረው የበልግ ወቅት የእርሻ እንቅስቃሴ ማለትም ለማሳ ዝግጅት ጠቀሜታ የነበረው ሲሆን በምዕራብ ኦሮሚያ አንዳንድ ስፍራዎች ላይ የነበረው መጠነኛ እርጥበት ለቋሚ ሰብሎችና ለግጦሽ ሣር አቅርቦት ጠቀሜታ ነበረው ።

በሌላ በኩል የሰሜን ምዕራብ ፣ የምዕራብ፣ የደቡብ ምዕራቅና የሰሜን ምዕራቅ ቆላማ አካባቢዎች የቀኑ ከፍተኛ ሙቀት አንፃራዊ መጨመር ታይቷል ። ይህም ሁኔታ በነዚህ አካባቢ ለሚኖረው የቋሚ ሰብሎች የውሃ ፍላጎት አሉታዊ ሁኔታ በአርብቶ አደር እና ከፊል አርብቶ አደር አካባቢ በግጦሽ ሳር እና ለመጠጥ ውሃ አቅርቦት አሉታዊ ተፅዕኖ እንደነበረው ይገመታል።

በተጨማሪም እ.ኤ.አ ከፌብሩዋሪ 21-29/2008-የነበረው የእርጥበት ደረጃ ጠቋሚ (ካርታ5) (አጠቃላይ የዝናብ መጠን ሲካፈል ለአጠቃላይ ትነት) እንደሚያሳዩው በምዕራብና ደቡብ ምዕራብ አንዳንድ ኪስ ቦታዎች ላይ መጠነኛ እርጥበት ነበራቸው ከmoderately dry እስከ humid የእርጥበት ደረጃ የነበራቸው ሲሆን የተቀሩት የአገሪቱ ክፍሎች ላይ ግን በአብዛኛው በጣም ደረቅ መሆኑን ያሳያል። ይኸም ሁኔታ ለበልግ ማሳ ዝግጅትና ለአጠቃላይ የእርሻ ሥራ እንቅስቃሴ አሉታዊ ተፅዕኖ ነበረው ። የእርጥበት ደረጃ ጠቋሚ (አጠቃላይ የዝናብ መጠን ሲካፈል ለአጠቃላይ ትነት) ከ0.5 በታች መሆኑ ሰብሎችን ለመዝራት በቂ አለመሆኑን ከመግለጹ ባሻገር ለመጠጥና ለግጦሽ ሣር አቅርቦት

በቂ አለመሆኑን ይገልጽልናል ። በዚህ ሳቢያ የነበረው ደረቅ ሁኔታ ለእርሻው ሥራ እንቅስቃሴ አሉታዊ ተጽዕኖ ነበረው ።

በአጠቃላይ እ.ኤ.አ በፌብሩዋሪ 2008 በአብዛኛዎቹ የሀገሪቱ ክፍሎች ላይ መጠነኛ ደረቅና ፀሐያማ የአየር ሁኔታ አመዝኖ ተስተውሏል። ካለፈው ፌብሩዋሪ የመጀመሪያዎቹ አስር ቀናት አጋማሽ ጀምሮ እርጥበት አዘል አየር ወደ አገሪቱ ከመግባቱ ጋር በተያያዘ በደቡብ ምዕራብ፣ መካከለኛውና ሰሜን ምሥራቅ የአገሪቱ አካባቢ አንዳንድ ቦታዎች ላይ መጠነኛ ዝናብ ተመዝግቧል። ይህም ዝናብ በተለይ በልግ አብቃይ ለሆኑ አካባቢዎች በሰሜን ምዕራቅ፣ በደቡብብ ሔርብ ብሔረሰቦች እና ህዝቦች ክልል እንዲሁም በመካከለኛው የሀገሪቱ ክፍሎች ቀደም ብለው የበልግ የማሳ ዝግጅት ለሚካሄዱ አካባቢዎች ጠቀሜታ ነበረው።

በወሩ አስር ቀን መገባደጃ ሰሞን ደግሞ እርጥበት አዘል አየር ወደ አገሪቱ በመግባቱ ሳቢያ በጥቂት የትግራይና አማራ፣ የምሥራቅ ኦሮሚያ፣ የደቡብ ብሄር ብሄረሰቦችና ሕዝቦች ክልልና አጎራባች በሆኑት በምዕራብ ኦሮሚያና በመካከለኛው ኦሮሚያ ኪስ ቦታዎች ላይ መጠነኛ ዝናብ ተዘግቧል። ይህም ሁኔታ በነዚህ አካባቢ ለነበረው የቋሚ ሰብሎች የውሃ ፍላጎት አሉታዊ አስተዋጽኦ ከማድረጉም ባሻገር ሁኔታው በአርብቶ አደር እና ከፊል አርብቶ አደር አካባቢ በግጦሽ ሳር እና ለመጠጥ ውሃ አቅርቦት ላይም አሉታዊ ተፅዕኖ ነበረው።

በተጨማሪም ከደመና ሽፋን መጨመር ጋር ተያይዞ በሀገሪቱ ቆላማ ሥፍራዎች ላይ አንፃራዊ መጨመር ያላቸው ከፍተኛ የሙቀት መጠን በዛ አካባቢ (Evapotranspiration) ትነት በመጨመር በተክሎች ጤናማ ዕድገት ላይ አሉታዊ ተፅዕኖ ሊያሳድር ይችላል። በአብዛኛው የአገሪቱ ቆላማ አካባቢዎች ላይ (ከ35-40) በዲግሪ ሴልሽስ የሚደርስ ከፍተኛ የሙቀት መጠን ተዘግቧል። በሌላ በኩል የሀገሪቱ ምዕራባዊ ዳርቻዎች እና በአፋር በአመዛኙ ደረቅ ሁኔታ አመዝኖባቸው ቆይቷል። ይህም ሁኔታ በአፋር አካባቢ ጥምር ግብርና ለሚካሄዱባቸው ለግጦሽ ሳርና ለመጠጥ ውሃ አቅርቦት አሉታዊ ተፅዕኖ እንደሚኖረው ይታመናል።

SUMMARY

FEBRUARY 2008

During the first dekad of February 2008, cloudy condition was observed over most parts of the country. Some areas of southwestern, central and northeastern parts of the country exhibited little rainfall. Generally, little to moderate amount of rainfall was experienced over some areas of western and central Oromia, SNNPR and eastern Amhara. The situation might have favored the seasonal agricultural activities like land preparation over areas where Belg agricultural activities start earlier. Moreover, some lowland areas exhibited extreme maximum temperature above 35⁰C. Among the reporting stations: Gambela, Gode, Mankush, Pawe and Semera recorded extreme maximum temperature ranging from (35⁰C-40.5⁰C) for two-ten consecutive days. This condition could exacerbate the stress due to moisture deficiency by increasing the rate of evapotranspiration. Besides, the observed dry weather condition over most parts of the country might have a negative impact on the availability of pasture and drinking water.

During the second dekad of February 2008, dry and windy condition was observed over most parts of the country. However, in the last days of the decade in relation to the increasing of cloud coverage over SNNPR, eastern, western and central Oromia, Tigray and central Amhara exhibited little rainfall. The situation might have favored the Belg agricultural activities like land preparation over the areas where normally Belg agricultural activities start around mid February like northern Tigray, eastern Amhara, central and eastern Oromia and half of eastern SNNPR. However, the dry and sunny weather condition in the last days of the dekad might have negative impact on the Belg Agricultural activities. In addition in the northwestern, southeastern, southwestern and eastern lowlands of the country the daily maximum temperature that have an impact on the rate of evapo-transpiration to increase, hence, the condition might have caused moisture stress on perennial crops.

During the third Dekad of February 2008, south western and western Oromia exhibited little rainfall due to the observed cloud coverage. This situation might favor Belg agricultural activities like land preparation over southwestern parts of the country. Moreover, the moisture condition which was observed over part of western Oromia, might have positive impact for perennial crops and pasture. On the other hand the rise in maximum temperature has been exhibited over northwestern, western, southeastern and northeastern lowland areas of the country. So, this situation could have negative impact for perennial crops and the availability of pasture and drinking water over pastoral and agropastoral areas.

Generally, during the month of February 2008, dry and sunny weather condition was observed over most parts of the country. In relation to moist air coming to the country starting from mid of the first dekad of the month some areas of south western, central and northeastern parts of the country received little rainfall. Hence, the situation might have a positive impact for Belg agricultural activity like land preparation over belg growing areas of north eastern, SNNPR and central parts of the country. The observed little amount of rainfall over some areas of Tigray and Amhara, eastern Oromia, SNNPR, adjoining areas of western Oromia and pocket areas of central

Oromia might have a negative impact on water requirement of the existing perennial crops over the areas. Besides, the situation might have also a negative impact on pasture and drinking water over pastoral and agro pastoral areas. On the other hand the observed extreme maximum temperature (35-40 °c) over most parts of lowland areas of the country might increase the evapotranspiration of the areas and affect the normal growth and development of the plant. Besides, the observed dry weather condition over western margins of the country and Afar might have a negative impact on the availability of pasture and drinking water over pastoral and agro pastoral areas.

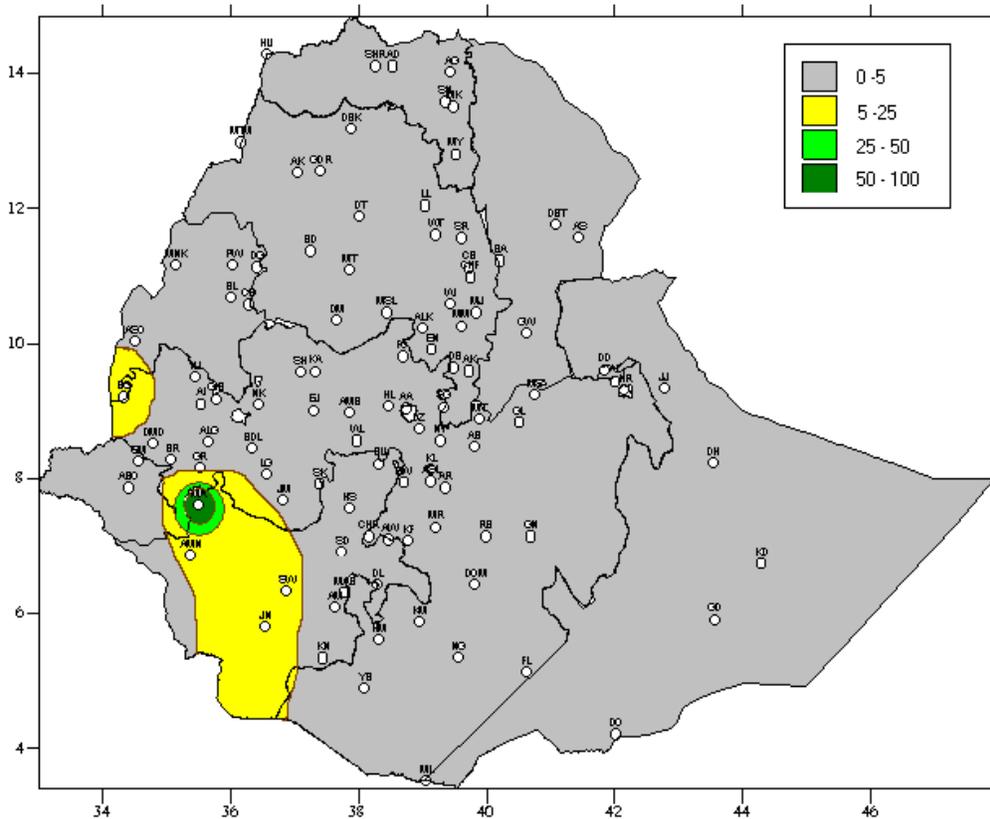


Fig 1. Rainfall distribution in mm (21-29 February, 2008)

1. WEATHER ASSESSMENT

1.1 (21-29 February, 2008)

1.1.1 Rainfall amount (Fig.1)

Pocket area of western SNNPR received (50-100) mm and (5-25) mm of rainfall.
 Southwestern parts of SNNPR, western margin of Oromia exhibited 5-25 mm of rainfall

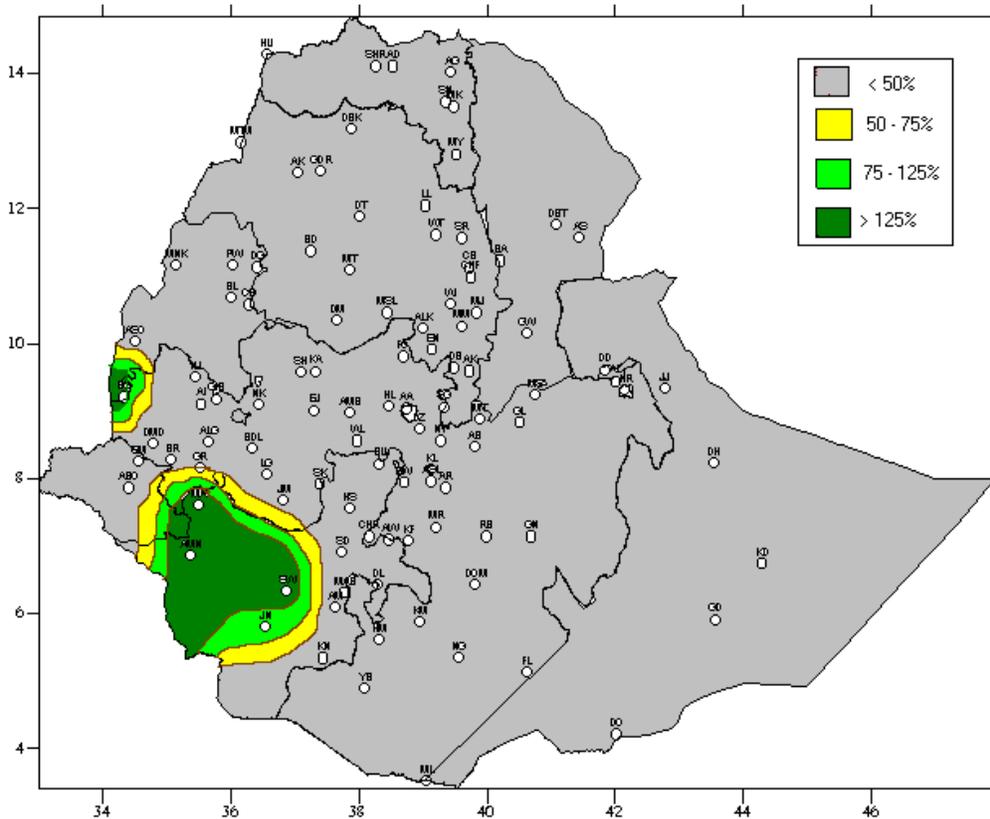


Fig. 2 Percent of normal rainfall distribution (21-29 February, 2008)

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)

Western half of SNNPR and western tip of Oromia exhibited normal to above normal rainfall. The rest parts of the country received below normal to much below normal rainfall during the month of February 2008.

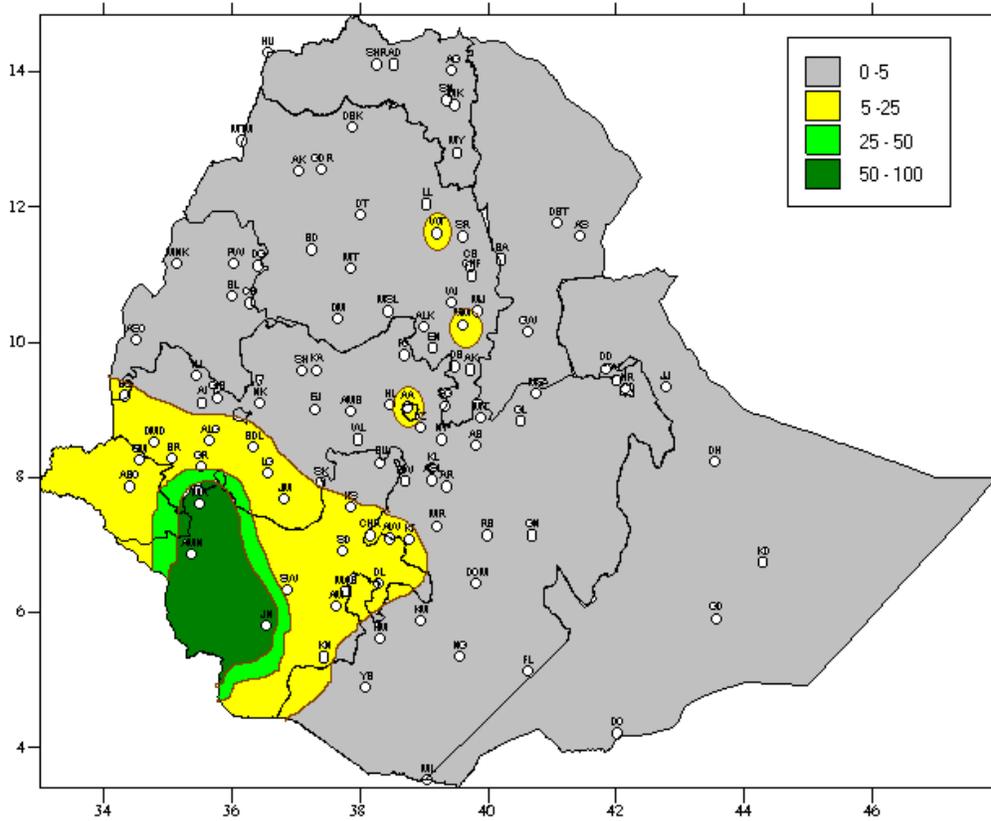


Fig. 3 Rainfall distribution in mm for the month of February 2008

1.2 February 2008

1.2.1 Rainfall distribution (Fig.3)

Southwest part of SNNPR received 50-100mm of rainfall. Eastern part of Gambela, southwestern tip of Oromia, margin of western half of SNNPR, exhibited 25-50 mm of rainfall. Most parts of Gambela , eastern half of SNNPR, part of western and pocket area of central Oromia and pocket areas of southeaster Amhara received 5-25mm of rainfall. The rest parts of the country exhibited little or no rainfall.

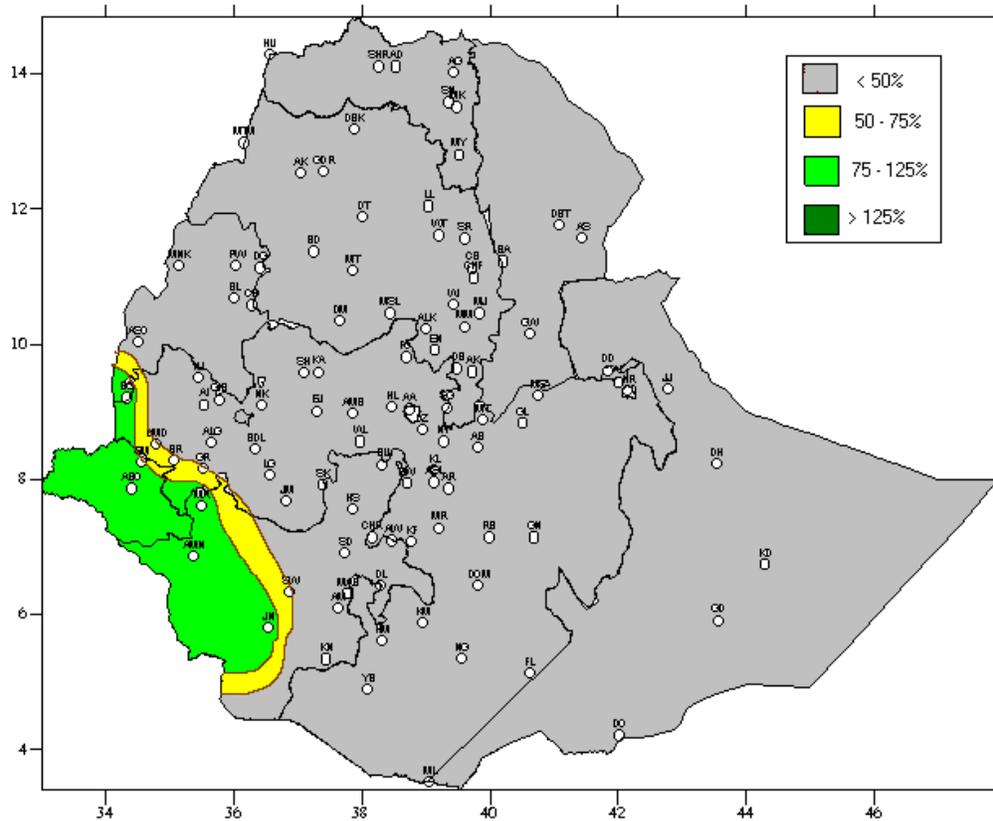


Fig. 4 Percent of Normal Rainfall distribution for the month of February 2008

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)

Southwest parts of SNNPR, Most parts of Gambela and western tip of Oromia exhibited normal rainfall. The rest parts of the country received below normal to much below normal rainfall.

1.3 TEMPERATURE ANOMALY

Dubi, Assayita, Mile, Methehara, Pawe, Gode, Metema, Mankush, Humera and Gambella recorded extreme Maximum temperature 35° C and above as high as 35, 35, 35, 36.2, 37.5, 38, 39, 39.4, 40.2 and 40.5 °c respectively.

2. WEATHER OUTLOOK

2.1 FOR THE FIRST DEKAD OF MARCH 2008

For the coming ten days western half of SNNPR, western Oromia and Gambella are expected to have near normal rainfall where as below normal rain is anticipated over eastern Tigray, eastern Amhara, central and eastern Oromia as well as most places of Somali and Borena. Besides, western Tigray, western Amhara, Benshangul- Gumuz and Afar will remain under sunny weather condition which some places will have a chance of getting light rain showers. On the other hand, a rise in daily minimum temperature is expected over most places of the country.

2.2 FOR THE MONTH OF MARCH 2008

For the coming month of March western half of SNNPR, Gambella and western oromia are expected to have close to normal rain. Besides, eastern Tigray, eastern Amhara, eastern section of Benshangul-Gumuz, eastern parts of SNNPR and much of Somali will get below normal rainfall where as some places will have near normal rain. Moreover, western Tigray, western Amhara, Benshangul-Gumuz and Afar will have below normal rain. On the hand, a rise in daily maximum temperature is expected over much of the country particularly over western and eastern lowlands.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Generally during the month of February 2008, dry and sunny weather condition was observed over most parts of the country. In relation to moist air coming to the country starting from mid of the first dekad of the month some areas of south western, central and northeastern parts of the country received little rainfall. Hence, the situation might have a positive impact for Belg agricultural activity like land preparation over belg growing areas of north eastern, SNNPR and central parts of the country. The observed little amount of rainfall over some areas of Tigray and Amhara, eastern Oromia, SNNPR, adjoining areas of western Oromia and pocket areas of central Oromia might have a negative impact on water requirement of the existing perennial crops over the areas. Besides, the situation might have also a negative impact on pasture and drinking water over pastoral and agro pastoral areas. On the other hand the observed extreme maximum temperature (35-40 °c) over most parts of lowland areas of the country might increase the evapotranspiration of the areas and affect the normal growth and development of the crop. Besides, the observed dry weather condition over western margins of the country and Afar might have a negative impact on the availability of pasture and drinking water over pastoral and agro pastoral areas.

In addition, during the third dekad of February 2008, the analysis of moisture status (the relationship between total dekad rainfall and the dekad total reference evapotranspiration) as indicated in fig 5 below was moderately dry to humid over pocket areas of western and southwestern parts of the country. The rest parts of the country were very dry. This situation might have negative impact on land preparation and for general Belg agricultural activities.

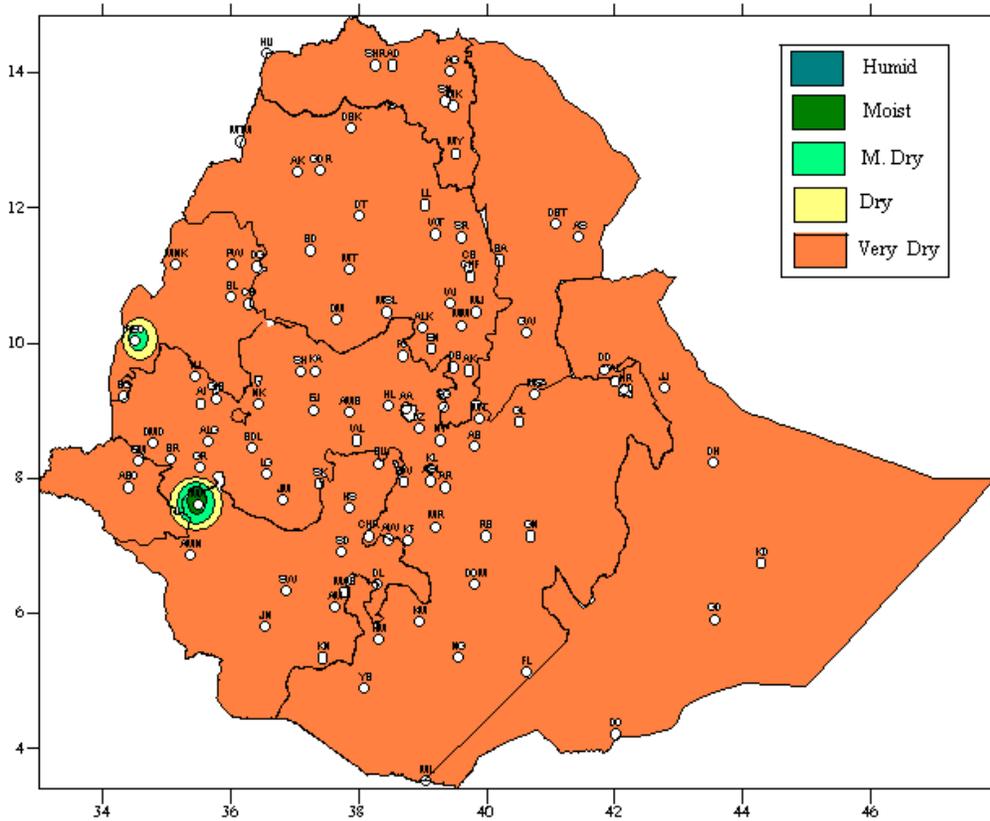


Fig. 5 Moisture status for (21-29 February, 2008)

3.2 EXPECTED WEATHER IMPACTS ON AGRICULTURE DURING THE COMING MONTH

The coming month of March 2008, different agricultural activities will be occur, normally this month the time of sowing period of Belg crops including long cycle crops. As indicates information that to get from different meteorological forecast sectors, LANINA episode condition will be continue in the coming month. This situation will have negative impacts on Belg rainfall in the country. Because of this the normal sowing period will be disorder over Belg agricultural activities areas and also the crop-growing period.

In the coming March, the expected near normal rainfall over western part of SNNPR, Gambela, western Oromia, eastern Tigray, eastern Amhara, Benshangul-Gumuz and much of Somali would have positive impact for Belg agricultural activities, perennial crops, pasture and drinking water availabilities. On the other hand, dry weather condition will be expected over western Tigray, western Amhara and Afar. This situation will have negative impact on agricultural activities. In addition, will be expected increasing of maximum temperature over western and eastern low land areas. So it might have negative impact on perennial crops' water availabilities and pasture and drinking water availabilities over pastoral and agropastural areas.

Table 1. Climatic and Agro-Climatic elements of different stations for the month of February 2008

	Stations	Region	A/ rainfall	Normal	% of Normal	Eto mm/day	Monthly Eto	Moisture status
1	Adigrat	TIGRAI	0	10	0.0	4	116	VD
2	Mekele		0	8.8	0.0	5.6	162.4	VD
3	Senkata		0	26.9	0.0	4.7	136.3	VD
4	Shire		4.4	0.3	1466.7	5	145	VD
1	Assayta	AFAR	0	9.2	0.0	6.5	188.5	VD
								VD
1	A. Ketema	AMHARA	6	20.5	29.3	4.9	142.1	VD
2	Aykel		0	2.2	0.0			
3	Bahirdar		0	1.8	0.0	4.4	127.6	VD
4	Bati		0	41.7	0.0	3.9	113.1	VD
5	Bullen		0	0.3	0.0	4.3	124.7	VD
6	Combolcha		0	37.3	0.0	4.2		VD
7	Chefa		0	40	0.0			
8	Dangila		0	2.6	0.0	5.5	159.5	VD
9	D.Birhan		0	18.6	0.0	4.4	127.6	VD
10	D.Markos		0	17.6	0.0	5.1	147.9	VD
11	D.Tabor							
12	Enwary		0	12.6	0.0	3.3	95.7	VD
13	Gondar		0	7.9	0.0	5.1	147.9	VD
14	M.Meda		5.1	25.8	19.8	4.4	127.6	VD
15	Majete		0	48.8	0.0	4.2	121.8	VD
16	Lalibela		2	12.6	15.9	4.5	130.5	VD
17	S. Gebeya		2.6	24.3	10.7	4.8	139.2	VD
18	Sirinka		0	61	0.0	4.3	124.7	VD
19	Wereilu		0	30.4	0.0	6	174	VD
		OROMIYA						
1	Abomsa		2.4	52.1	4.6	5	145	VD
2	Ambo Agri.		0	36.6	0.0	6.1	176.9	VD
3	Aira		0.7	6	11.7	4.2	121.8	VD
4	Alemaya		0	24.1	0.0	3.2	92.8	VD
5	Alge		5.5	17.9	30.7	4.2	121.8	VD
6	Ambo			36.6				
7	Arjo		1.6	23.7	6.8	4.4	127.6	VD
8	Bedelle		0	21.3	0.0	3.8	110.2	VD
9	Begi		13.7	11.6	118.1	9	261	VD
10	Bui		0	19.8	0.0	5.1	147.9	VD
11	Chira		53.7	56	95.9	3.9	113.1	MD
12	D.Dollo		2.1	14.1	14.9	4	116	VD
13	D.Mena		0	34.6	0.0	4.9	142.1	VD
14	D.Zeit		0	25.4	0.0	5.6	162.4	VD
15	Ejaji		0	59.7	0.0	4.8	139.2	VD
16	Fitche		0	33	0.0	3.9	113.1	VD
17	Gelemso		0	34.5	0.0	5.9	171.1	VD
18	Gimbi		0	4	0.0	5.6	162.4	VD
19	Ginir		0	24.2	0.0	4.4	127.6	VD
20	H. Mariam		0	25	0.0	3.2	92.8	VD

21	Jimma		12.1	47	25.7	3.5	101.5	D
22	K.Mengist		0	21.5	0.0	3.9	113.1	VD
23	Kachisa		6.8	27.3	24.9	4.3	124.7	VD
24	Koffele		14.1	57.1	24.7	4	116	D
25	Kulumsa		2.3	44.3	5.2	4.8	139.2	VD
26	Limugenet		10.1	36.6	27.6	4	116	VD
27	Metehara		0	30.6	0.0	3.9	113.1	VD
28	Mi'eso		0	39.9	0.0	4.7	136.3	VD
29	Moyale		0	21.7	0.0	6.4	185.6	VD
30	Nazreth		0	27.2	0.0	5.2	150.8	VD
31	Neghele		0	21.5	0.0	6.9	200.1	VD
32	Nedjo		0	5.2	0.0	4	116	VD
33	Nekemte		0	15.7	0.0	3.9	113.1	VD
34	Robe(Bale)		0	31.5	0.0	4.5	130.5	VD
35	Sekoru		1.7	37.2	4.6	4	116	VD
36	Shambu		0	27.2	0.0	4.3	124.7	VD
37	Yabello		0	36.6	0.0	5.4	156.6	VD
38	Ziway		0.4	34.6	1.2	4	116	VD
1	Jijiga	SOMALI	0	25	0.0	4	116	VD
1	A.Minch	SNNPR	7	31.8	22.0	4.7	136.3	VD
2	Awassa		3.8	58.9	6.5	4.6	133.4	VD
3	Blate		3.7	39.2	9.4	5.1	147.9	VD
4	Hosaina		1.2	51.6	2.3	5	145	VD
5	Jinka		42.9	47.2	90.9	3.9	113.1	MD
6	Konso		0.7	39.8	1.8	5.4	156.6	VD
7	M.Abay		11.6	32.3	35.9	5.4	156.6	VD
8	Masha		64.9	52.9	122.7	3.4	98.6	M
9	Sawla		8.2	35.8	22.9	4.2	121.8	VD
1	Assosa	B/GUMUZ	0	4.2	0.0	6.1	176.9	VD
2	Chagni		0	7.1	0.0	6.2	179.8	VD
3	Pawe		0	1	0.0	4.5	130.5	VD
4	Gambela	Gambela	0	2.9	0.0	4.4	127.6	VD
1	A.A.Obs.	A.A	13	36	36.1	4	116	VD
2	A.A. Bole			37.6	0.0	4	116	VD
1	Diredawa	D.D	0	32.7	0.0	4.2	121.8	VD
1	Harar	Harai	0	11.8	0.0	4.7	136.3	VD

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

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 covers 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.

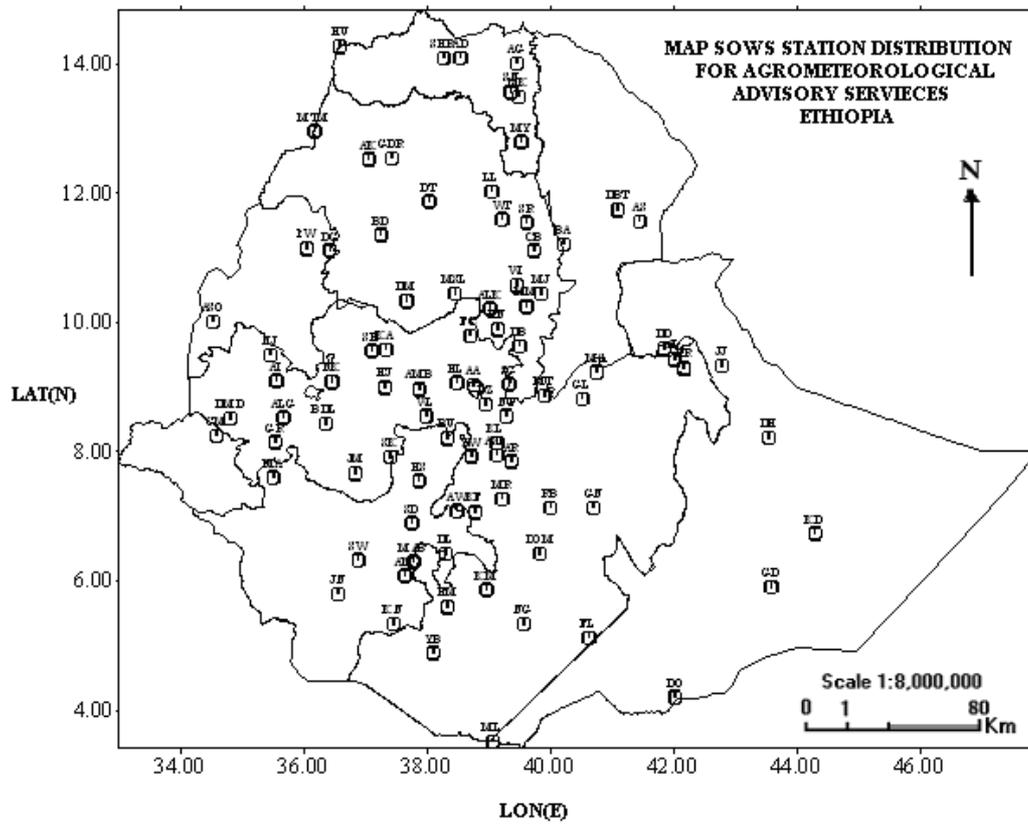
DEKAD: - First or second ten days or the remaining days of a month.

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
A. Robe	AR	D. Markos	DM	Hossaina	HS	M/Selam	MSL
A.A. Bole	AA	D. Zeit	DZ	Humera	HU	Nazereth	NT
Adigrat	AG	D/Dawa	DD	Jijiga	JJ	Nedjo	NJ
Adwa	AD	D/Mena	DOM	Jimma	JM	Negelle	NG
Aira	AI	D/Odo	DO	Jinka	JN	Nekemte	NK
Alemaya	AL	D/Tabor	DT	K.Dehar	KD	Pawe	PW
Alem Ketema	ALK	Dangla	DG	K/Mingist	KM	Robe	RB
Alge	ALG	Dilla	DL	Kachise	KA	Sawla	SW
Ambo	AMB	Dm.Dolo	DMD	Koffele	KF	Sekoru	SK
Arba Minch	AM	Dubti	DBT	Konso	KN	Senkata	SN
Asaita	AS	Ejaji	EJ	Kulumsa	KL	Shambu	SH
Asela	ASL	Enwary	EN	Lalibela	LL	Shire	SHR
Assosa	ASO	Fiche	FC	M.Meda	MM	Shola Gebeya	SG
Awassa	AW	Filtu	FL	M/Abaya	MAB	Sirinka	SR
Aykel	AK	Gambela	GM	Maichew	MY	Sodo	SD
B. Dar	BD	Gelemso	GL	Majete	MJ	Wegel Tena	WT
Bati	BA	Ginir	GN	Masha	MA	Woliso	WL
Bedelle	BDL	Gode	GD	Mekele	MK	Woreilu	WI
BUI	BU	Gonder	GDR	Merraro	MR	Yabello	YB
Combolcha	CB	Gore	GR	Metehara	MT	Ziway	ZW
D. Berehan	DB	H/Mariam	HM	Metema	MTM		
D. Habour	DH	Harer	HR	Mieso	MS		
		Holleta	HL	Moyale	ML		