

## **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.

Director General

NMA  
P.O.Box 1090  
Tel: 011661-57-79  
FAX 00251-11-6625292  
E-mail [nmsa@ethionet.et](mailto:nmsa@ethionet.et)  
Addis Ababa

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እ.ኤ.አ ፌብሩዋሪ 2014

በፌብሩዋሪ በመጀመሪያዎቹ አሥር ቀናት ዝናብ ሰጪ የሆኑ የሜቲዎሮሎጂ ክስተቶች በስርጭትም ሆነ በመጠን ረገድ በመጠናከራቸው ምክንያት በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል በአብዛኛው ኦሮሚያ፣ በምስራቅ አማራ፣ በደቡብ አፋር፣ በድሬዳዋ፣ በሐረር እና በሰሜን ሶማሌ ከቀላል እስከ ከባድ መጠን ያለው ዝናብ ከማግኘታቸው ጋር ተያይዞ በተጨማሪም መካከለኛው፣ በምስራቅና በሰሜንምስራቅ የአገሪቱ አንዳንድ ቦታዎች ላይ 30.5-78.5 ሚ.ሜ ዝናብ በ24 ሰዓት ውስጥ አግኝተዋል ይህም ሁኔታ የበልግ እርሻን ቀደም ብለው ለሚጀምሩ አካባቢዎች ለበልግ እርሻ የማሳ ዝግጅትና የዘር እርሻ እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለመጠጥ ውሀና ለግጦሽ ሳር ልምላሜ የጎላ ጠቀሜታ ነበረው።

በፌብሩዋሪ ሁለተኛው አስር ቀናት በአብዛኛው የአገሪቱ አካባቢዎች ደረቅ፣ ፀፃምና ሞቃት የአየር ሁኔታ አመዝናባቸው ቢቆይም ከአስሩ ቀናት አጋማሽ በኋላ ለበልግ ዝናብ መኖር አመቺ የሆኑ የአየር ሁኔታ ክስተቶች ቀስ በቀስ በመጠናከራቸው ምክንያት በምዕራብ፣ በመካከለኛውና በደቡብ ኦሮሚያ፣ የደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፣ በአማራ፣ በምስራቅ ትግራይ፣ በምዕራብ አፋርና በጥቂት የምስራቅ ኢትዮጵያን አካባቢዎች ከቀላል እስከ መካከለኛ መጠን ያለው ዝናብ ያገኙ ሲሆን በተለይም በምስራቅ አማራ በመካከ ሰላምና በኮንሶ 47.1 እና 42.5 ሚ.ሜ የዝናብ መጠን በአንድ ቀን በቅደም ተከተል አግኝተዋል። ይህም ሁኔታ በወቅቱ ለሚካሄደው የበልግ የእርሻ ስራ እንቅስቃሴ፣ ለቋሚ ሰብሎች የውሃ ፍላጎት መሟላት እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚኖሩ አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለመጠጥ ውሀና ለግጦሽ ሳር ልምላሜ የጎላ ጠቀሜታ ነበረው።

በፌብሩዋሪ ሶስተኛው አስር ቀናት በከባቢ አየር ውስጥ አልፎ አልፎ ከሚታየው መጠነኛ እርጥበት ከመጨመሩ ጋር ተያይዞ የዳመና ሽፋን በምዕራብ፣ በደቡብ ምዕራብ፣ በመካከለኛው፣ በሰሜን ምሥራቅና በምሥራቅ የሀገሪቱ አካባቢዎች ላይ ነበረ። ከዚህም ጋር በተያያዘ በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፣ በምዕራብና በመካከለኛው ኦሮሚያ፣ በደቡብ ኦሮሚያ ከፍተኛ ሥፍራዎች፣ በምሥራቅ ቤንሻንጉል ጉሙዝ፣ በአማራ፣ በምሥራቅ ትግራይ እና በጥቂት የምሥራቅ ኢትዮጵያ አካባቢዎችን ጨምሮ ከቀለላል እስከ መካከለኛ መጠን ያለው ዝናብ አግኝተዋል ከዚህም ጋር ተያይዞ በሆሳህና 38.4 ሚ.ሜ ዝናብ በአንድ ቀን ውስጥ ተመዝግቦል። ይህም ሁኔታ የበልግ እርሻን ቀደም ብለው ለሚጀምሩ አካባቢዎች የማሳ ዝግጅትና የዘር እርሻ እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለመጠጥ ውሀና ለግጦሽ ሳር አቅርቦት የጎላ ጠቀሜታ ነበረው።

ባለፈው ፌብሩዋሪ የመጀመሪያው አሥር ቀናት ለዝናብ መኖር አመቺ ሁኔታ የሚፈጥሩ የአየር ሁኔታ ክስተቶች በመጠናከራቸው ምክንያት የዝናቡ ሁኔታ በሥርዓት ረገድ የተስፋፋና በመጠንም በአንዳንድ ሥፍራዎች ላይ ከባድ መጠን ያለው ዝናብ የነበረ ሲሆን በሁለተኛውና በመጨረሻው አሥር ቀናት ግን የዝናቡ ስርዓትም ሆነ መጠን አንጻራዊ በሆነ መልኩ ቀንሶ ተስተውሏል። ሆኖም አልፎ አልፎ ከሚታየው መጠነኛ እርጥበት ጋር ተያይዞ የበልግ ዝናብ ተጠቃሚ በሆኑት በደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል፣ በአብዛኛው ኦሮሚያና በአማራ፣ በደቡብና ምሥራቅ ትግራይ፣ በቤንሻንጉል ጉሙዝ፣ በአፋር እና በምሥራቅ ኢትዮጵያ ከቀላል እስከ ከባድ መጠን ያለው ዝናብ አግኝተዋል። ይህም ሁኔታ የበልግ እርሻን ቀደም ብለው ለሚጀምሩ አካባቢዎች የማሳ ዝግጅትና የዘር እርሻ እንዲሁም ከላይ በተጠቀሱት አካባቢዎች ለሚገኙ አርብቶ አደሮችና ከፊል አርብቶ አደሮች ለመጠጥ ውሀና ለግጦሽ ሳር አቅርቦት እንዲሁም ለቋሚ ሰብሎች የውሃ ፍላጎት መሟላት የጎላ ጠቀሜታ ነበረው።

## SUMMARY

February 2014

During the first decade of February 2014, expanded rainfall distribution and heavy rainfall was observed over SNNP, most parts of Oromia, eastern Amara, southern Afar, Dire Dewa, Harari and northern Somali. Moreover, Awash Arba, Hosahna, Majate and Nuraera recorded heavy fall ranging from 30.5 to 78.5 mm. On other hand the rest part of the country has experienced dry and sunny weather condition. This situation might have positive impact for Belg agricultural activities, land preparation and sowing of Belg crops, water requirement for perennial plant and availability of drinking water and pasture for pastoral and agro-pastoral areas of the country. On the other hand the rest part of the country prevail dry and sunny weather condition.

During the second decade of February 2014, Belg rain bearing meteorological weather phenomenon was strengthen over western, central and southern Oromia, SNNPR, Amhara, eastern Tigray, western Afar and some areas of eastern Ethiopia have experienced little to moderate rainfall. Heavy fall was recorded over Mekan selam and Konso with magnitude of 47.1 and 45.2 mm in one rainy day. The situation has positive impact for ongoing Belg agricultural activities, water requirement for perennial plants and availability of dirking water and pasture over pastoral and agro pastoral areas of the country. The rest parts of the country was prevailed under dry, wind and sunny weather conditions this might have a negative impact for perennial plants and pasture by increasing evapo- transpiration.

During the third decade of Feb, 2014 the last eight days consecutive moist air entering to the atmosphere cause to increase the cloud converge over western, southwestern, central, northeastern and eastern parts of the country. In line to this cloud coverage SNNPR, western, central and high land of southern Ormia, eastern Benshangul- Gumuz, Amhara, Eastern Tigray and small areas of eastern Ethiopia exhibited light to moderate rainfall. More over Hosahna reported 38.4mm of rainfall in one rainy day. This situation has advantage for the ongoing Belg agricultural activities such as land preparation and sowing of Belg crop, water requirement for perennial plants and availability of dirking water and pasture over pastoral and agro pastoral areas of the country.

During the month under review of February, 2014, SNNPR, most parts of Oromia and Amhara, south and eastern Tigray, Benshangul Gumuz, Afar and eastern Ethiopia received light to heavy rainfall. More over stations Shire, Awash Arba, Mekanaselam, Konso, Hosahna, Majate and Nurera reported heavy fall raging from 30.5-78.3 mm of rainfall in one rainy day. This situation has a positive impact for the ongoing Belg agricultural activities such as land preparation and sowing of Belg crop, water requirement for perennial plants and availability of dirking water and pasture over pastoral and agro pastoral areas of the country.

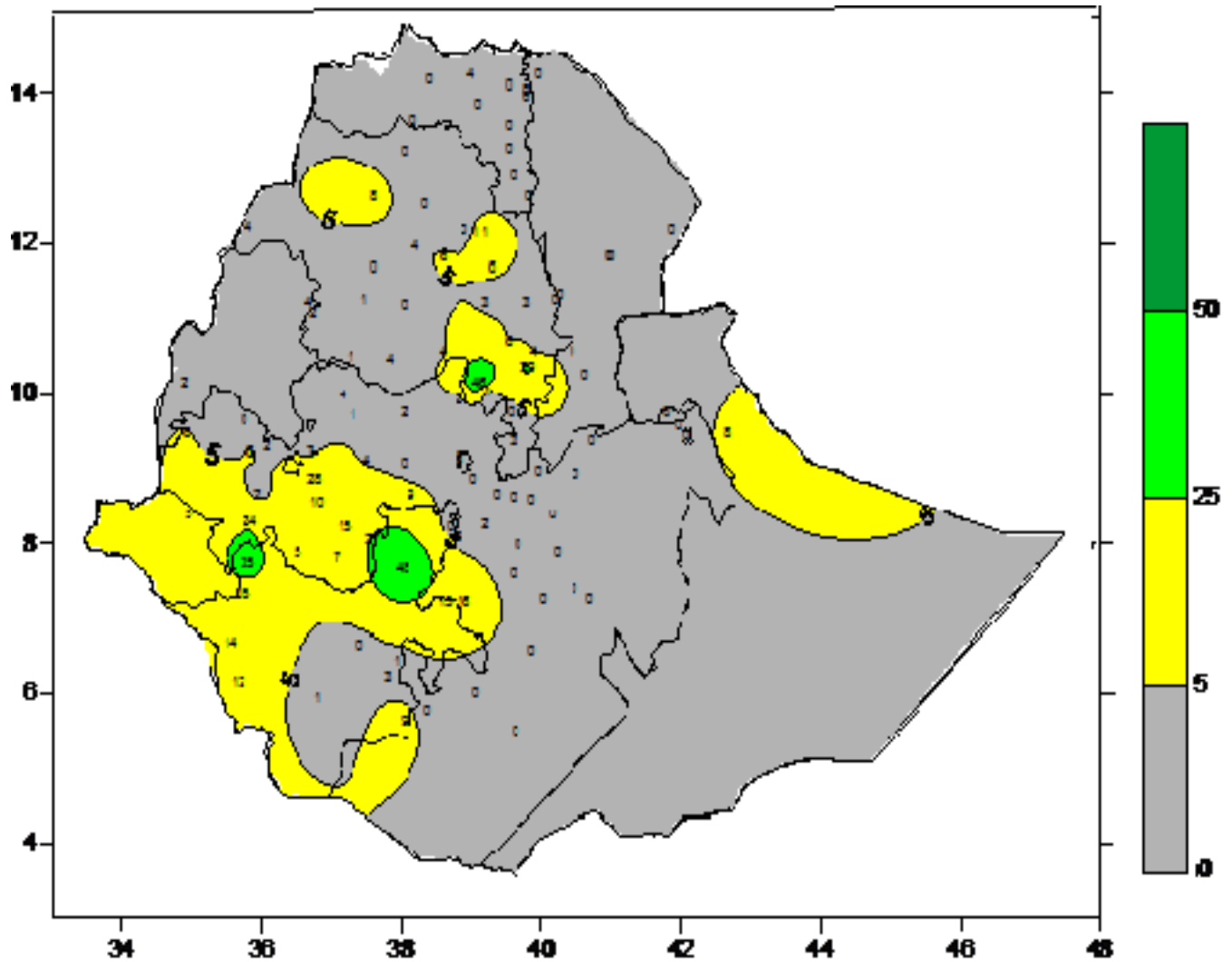


Fig 1. Rainfall distribution in mm (21 – 28 Feb, 2014)

## 1. WEATHER ASSESSMENT

### 1.1 (21 – 28 Feb, 2014)

#### 1.1.1 Rainfall amount (Fig.1)

Pocket areas of western tip SNNPR, western Oromia and eastern Gambela received 5-25 mm of rainfall. The rest parts of the country experienced little or no rainfall

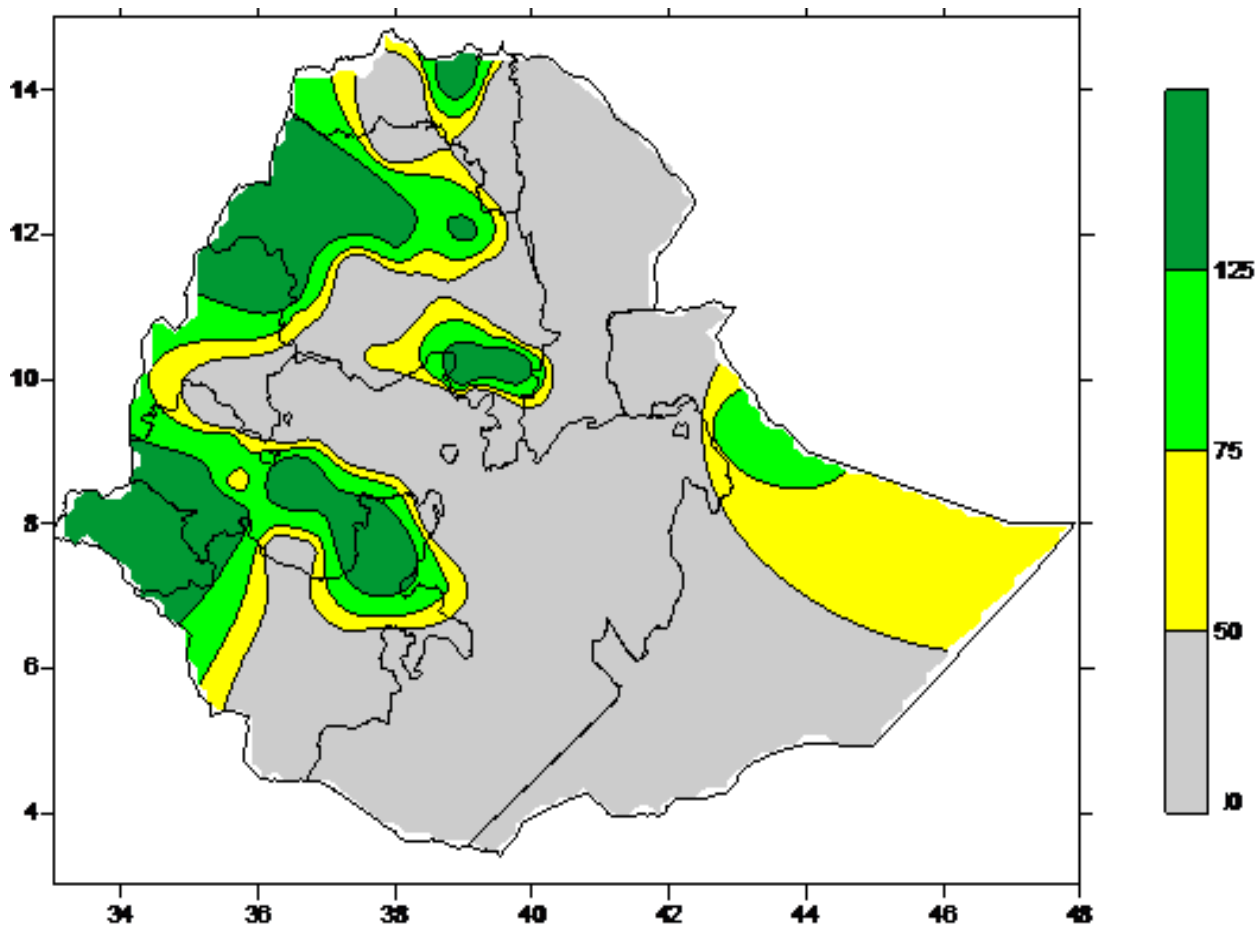


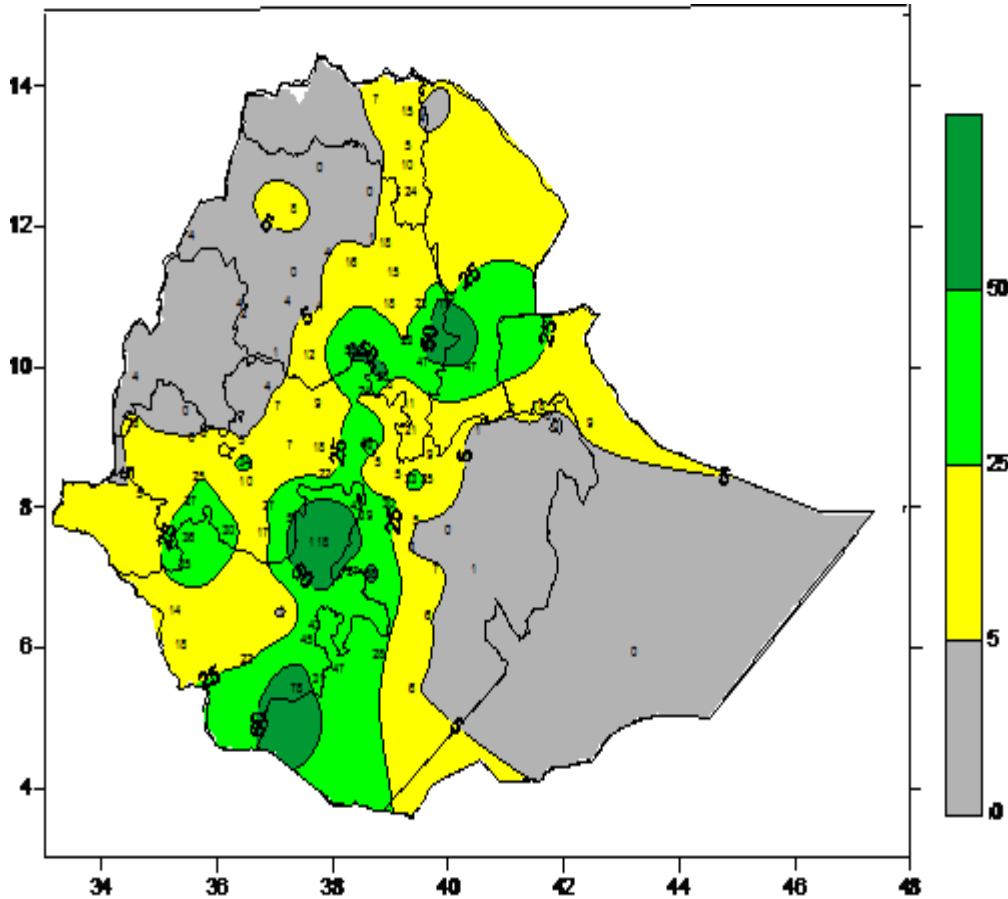
Fig. 2 Percent of normal rainfall distribution (21 – 28 Feb, 2014)

**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, eastern half of SNNPR, parts of southern, eastern and western Amhara, western margin of Benshangul-Gumuze, Afar, southern and north eastern tip of Tigray experienced normal to above normal rainfall. The rest parts of the country exhibited below to much below normal rainfall.



**Fig. 3 Rainfall distribution in mm for the month of Feb, 2014**

## **1.2 February 2014**

### **1.2.1 Rainfall distribution (Fig.3)**

Parts of southern and northern SNNPR, pocket area of eastern Amhara received 50-100 mm of rainfall, parts of southern, northern and western SNNPR, some parts of southern and central Oromia, southern Amhara and Afar received 25-50 mm of rainfall. Gambela, western parts of SNNPR, parts of western Amhara, southern and central Oromia, parts of eastern southern and pocket area of western Amhara, eastern half of Tigray, most parts of Afar and northern Somali received 5-25 mm of rainfall. The rest parts of the country experienced little or no rainfall.

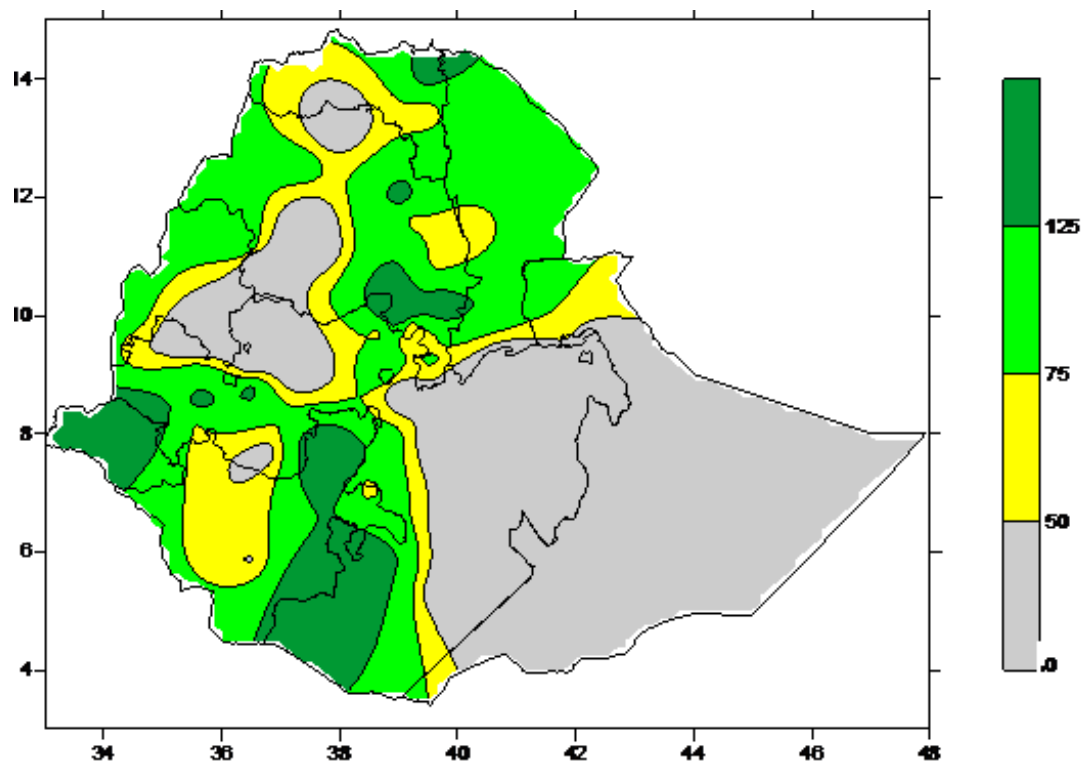


Fig. 4 Percent of Normal Rainfall distribution for the month of February, 2014

**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 area of western SNNPR exhibited normal rainfall. The rest parts of the country experienced below normal and much below normal rainfall.

**1.3 TEMPERATURE ANOMALY**

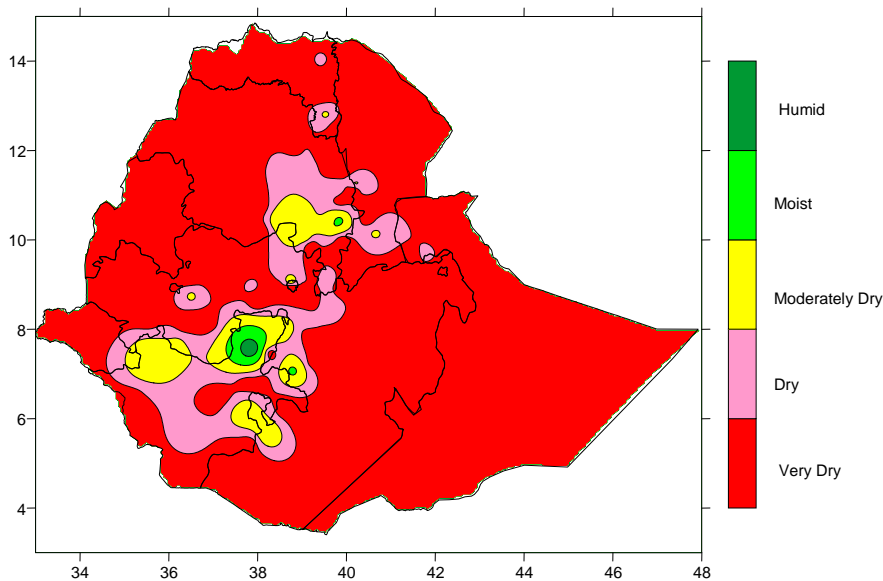
During the month under review, some stations in the lowland parts of the country exhibited extreme maximum air temperature above 35°C. Among the recording stations: Gambela, Quara, Tsitsika, Sirba Abaya, Gode, Gewane, Mytsemrie, Metehara, Aider, Chewaka, Ejaji Mirab Abay and Teriche reported Extreme monthly maximum temperature ranging from 35.2°C to 42.4°C. While some stations, over the high lands, reported extreme minimum temperature below 5.0°C. To mention some of them; Adegrat, Adet, Wegel Tena, Baher Dar, Mehal Meda 3.2, Jimma, Adawa, Debark, Senkata and Hagera Mariam has reported extreme minimum temperature ranging from 0.0°C to 4.6°C The extreme temperature experienced aforementioned areas might have a negative impact on the normal growth and development of perennial plants and physiological activities and products of livestock.



## 2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

### 2.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the month under review of February, 2014, dry, sunny and windy Bega weather condition dominantly prevailed over most parts of the country. Even though, Bega weather condition dominated over most parts of the country, as rain bearing meteorological phenomenon persistently observed and formed cloudy condition over, SNNPR, western and central Oromia including southern high lands, and eastern parts of the country experienced light to moderate rain ranging from 5-54 mm over few places for 2-8 days. The rainfall experienced during the month was normal to above normal over few places of SNNPR, western Oromia and central Amhara while, it was below normal over the rest of the country. The situation favored harvest and post harvest agricultural activities while, the rainfall received over few places was might have useful for perennial plants, pasture and drinking water availability over pastoral and agro pastoral areas. While, the minimum temperature fallen below 5 °C for consecutive days over some places of high land parts of the country might have negative impact on normal growth of perennial plants and physiological activities and products of livestock.



**Fig. 5 moisture status for the month of November, 2013**

As depicted on the moisture status map above, pocket areas of northern SNNPR and some portion of southern Amhara were under humid to moist condition. Whereas, most parts of SNNPR, Eastern and southern Amhara, southern Afar, few places of southern-Tigray and adjoining areas of Oromia with SNNPR experienced moderately dry moist condition. The rest parts of the country remained under dry to very weather situation

## **2.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING MONTH**

In the coming month of Jan 2014, forecasting tools indicate that gradual strengthen of rain bearing meteorological phenomenon. In line with this, near normal rainfall will expect over western and southern Oromia and SNNPR ,while, light rain will expect to prevailed over few places of central and eastern Oromia, eastern Tigray and Amhara as a result of expected cloudy condition. The situation will expect to favor Belg land preparation where moisture is sufficient and starts land preparation early; perennial plants water requirement, pasture and drinking water availability in pastoral and agro pastoral parts of the country. The rest parts of the country will expect dominantly under influence of Bega weather condition. This situation at large will expect to favored harvest of pulse crops and post harvest activities of the Meher cereal crops. The dry sunny and windy Bega weather condition associated with mid night and early morning cool temperature also will have negative impact on perennial plants, vegetables or crops in irrigated farm, livestock and their products.

## **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 February. 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.

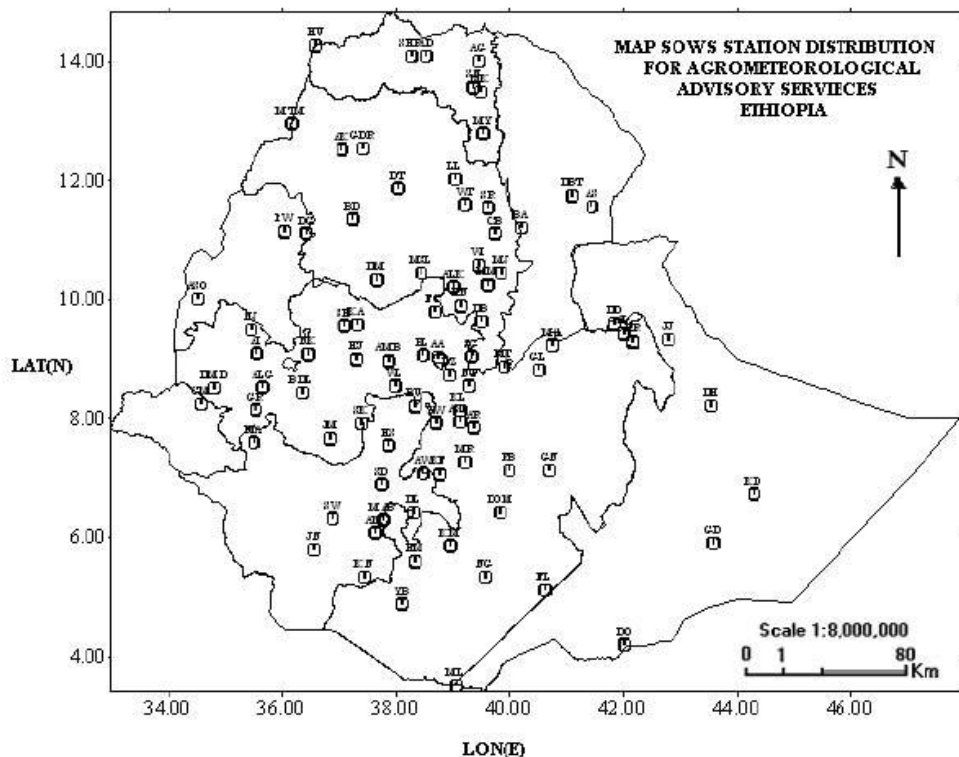
**DEKAD:** - First or second ten days or the remaining days of a month.

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