

# NATIONAL METEOROLOGICAL SERVICES AGENCY

## TEN DAY AGROMETEOROLOGICAL BULLETIN

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### SUMMARY

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

During the second dekad of August 2005, the observed over all rainfall condition favored season's agricultural activities in most parts of Meher growing areas. Nevertheless some pocket areas of central, northern, western, northeastern and southwestern parts of the country exhibited heavy falls ranging from 30-104mm in one rainy day. Among the reporting stations Metema, Limu Genet, Michew, Aira, Ejaji, Debre Tabor, Alge, Kobo, Gore, Jinka and Bui recorded 44.6, 44.7, 45.5, 46.6, 49.8, 50.3, 55.0, 58.6, 59.6, 60.4 and 104.9 mm of heavy fall in one rainy day respectively. As a result some areas of the above mentioned areas like Bui and Dangila reported crop damage due to heavy falls. In accordance with the crop phenological report sowing of wheat was under way in some areas of western Oromiya like Gimbi. Maize was at flowering stage in some areas of western Oromiya (Nedjo, Aira, Dembi Dolo and Sekoru). Moreover, it was at wax and full ripeness stage over some southern highlands of Oromiya like Chira, northwestern Benishangul-Gumuz (Mankush) in some areas of northeastern SNNPR like Hossaina. Sorghum was at early vegetative stage in some areas of western and southern highlands of Oromiya like Dembi Dolo, Nedjo, and Chira including southwestern Benishangul-Gumuz like Assosa. It was also at tasseling stage in some areas of western Oromiya like Gimbi. Millet was at tillering stage in some areas of western Oromiya like Nedjo and Aira while at flowering stage in some areas of eastern Oromiya like Gelemso. Wheat was at early vegetative stage in some areas of western and central Oromiya like Shambu and Kulumsa including northern SNNPR like Hosaina, in some areas of northern Oromiya (Fitcha) and southeastern Amhara (Shola Gebeya). Beans were at budding stage in some areas of northern Oromiya (Fitcha) and southeastern Amhara (Shola Gebeya). Bui and Dangila reported crop damage due to heavy falls during the dekad under review.

# 1. WEATHER ASSESSMENT

## 1.1 RAINFALL AMOUNT (Fig. 1)

Rainfall distribution analysis over the second dekad of August indicates that more than 200 mm of rainfall has been observed at isolated locations over western Oromia, where as a rainfall amount of 100mm to 200 mm of rainfall has been observed over places in western Oromia and western Amhara including northern margin of Beni Shangul-Gumuz and isolated places over Eastern Amhara. A rainfall amount of 50 to 100 mm of rainfall has been observed over most parts of Tigray, over western margins of Afar, in northern, eastern and southern Amhara and most parts of BeniShangul-Gumuz and western portion of SNNPR. A rainfall amount of 25 to 50 mm has been observed over central parts of Afar, over eastern Oromia, much of eastern portions of SNNPR and over Gambella. The rest of the country , which includes the southern and eastern margins, received below 25 mm of rainfall.

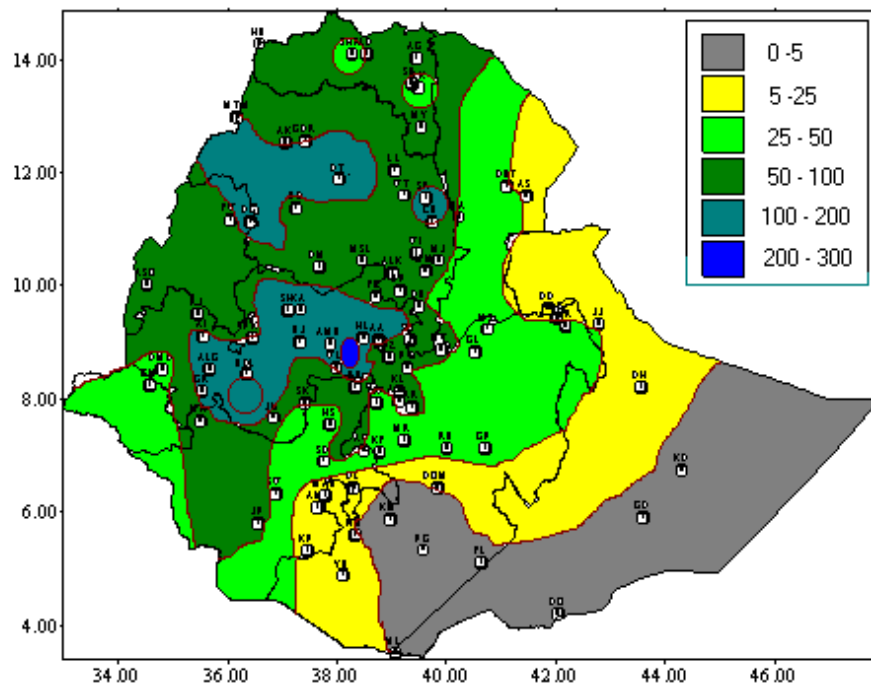
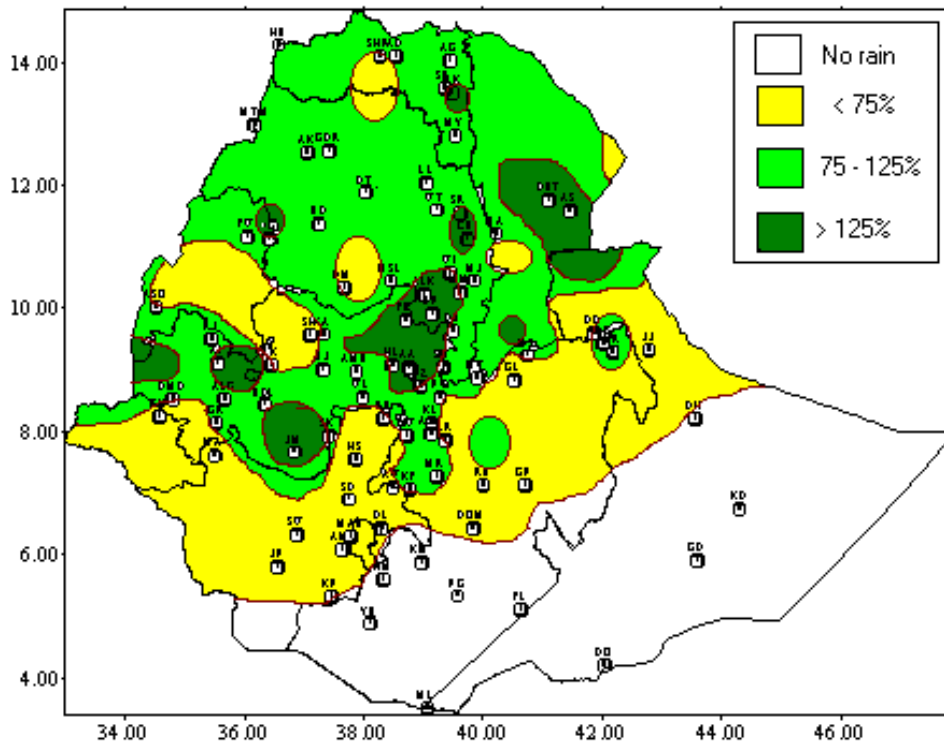


Fig 1. Rainfall distribution in mm (11-20 August, 2005)

## 1.2 RAINFALL ANOMALY (Fig. 2)

Rainfall anomaly analysis in the second dekad of August indicates that most parts of Tigray, most parts of Amhara, most parts of Afar, northern portion of BeniShangul-Gumuz, western and central parts of Oromia received normal to above normal rainfall. Most parts of eastern Oromia, most parts of SNNPR, most parts of northern Somali, most parts of Gambella and parts of Beni Shangul-Gumuz received below normal rainfall.



**Fig.2 Percent of normal rainfall (11-20 August 2005)**

Explanatory notes for the legend:  
 <50 -- Much below normal  
 50—75% -- below normal  
 75—125% --- Normal  
 > 125% ---- Above normal

## 1.3 TEMPERATURE ANOMALY

No significant air temperature anomaly was observed over most parts of the country.

## **2. WEATHER OUTLOOK FOR THE THIRD DEKAD OF AUGUST 2005**

For the coming ten days, western half of SNNPR, Gambella, Central and western Oromia, Beneshangul-Gumuz as well as most parts of Tigray and Amhara are expected to have normal to above normal rainfall. Moreover, eastern portions of Tigray and Amhara, eastern Oromiya, Afar, northern half of Somali, Dire Dawa as well as eastern portions of SNNPR are expected to experience close to normal rainfall, However, the probability of getting below normal rain is very high. On the other hand, isolated rain shower is anticipated over southern parts of Oromiya & SNNPR. Nevertheless, dry weather condition with patches of clouds is expected over southern Somali region.

## **3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE**

### **3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE**

The observed rainfall activity in the second dekad of August 2005 favored the season's agricultural activities in most parts of Meher growing areas. Nevertheless there had been reports of crop damage due to heavy falls. As a result some areas like Bui and Dangila reported crop damage due to heavy falls. In general the rainfall distribution is expected to contribute positively to the satisfaction of crop water requirement to crops in different stages of their developments, where according to crop phenological report Maize was at flowering stage in some areas of western Oromiya (Nedjo, Aira, Dembi Dolo and Sekoru), Sorghum was at early vegetative stage in some areas of western and southern highlands of Oromiya like Dembi Dolo, Nedjo, and Chira including southwestern Benishangul-Gumuz like Assosa. It was also at teaselling stage in some areas of western Oromiya like Gimbi. Millet was at tillering stage in some areas of western Oromiya like Nedjo and Aira while at flowering stage in some areas of eastern Oromiya like Gelemso. Wheat was at early vegetative stage in some areas of western and central Oromiya like Shambu and Kulumsa including northern SNNPR like Hosaina, in some areas of northern Oromiya (Fitche) and southeastern Amhara (Shola Gebeya). Beans were at budding stage in some areas of northern Oromiya (Fitche) and southeastern Amhara (Shola Gebeya. Moreover the rainfall activity is considered to be beneficial over areas where late sowing activity is undertaken, for example, sowing of wheat was under way in some areas of western Oromiya like Gimbi.

### **3.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING DEKAD**

The expected normal to above normal rainfall during the coming dekad, over the western half of SNNPR, Gambella, Central and western Oromia, Beneshangul-Gumuz as well as most parts of Tigray and Amhara is expected to contribute positively to the satisfaction of the water requirement of crops at their different stages, to increase in stored soil moisture and moreover it can be beneficial to late sowing activity of crops including those which are planted on stored soil moisture. However it is important to note possibility of crop damages associated with heavy falls, which should be tackled with replanting activities if the damage is critical. The expected close to normal rainfall over eastern Tigray, and Amhara, eastern Oromia, Afar, northern half of Somali, Dire Dawa as well as eastern portions of SNNPR is expected to have an over all positive contribution. However, isolated places over these areas which have been getting below normal rainfall for the last two successive dekads may probably result in isolated cases of moisture stress which greatly depends on the particular condition of the areas (such as soil water holding capacity. Stored soil moisture, type of crops etc). In general the expected rainfall activity over most of the Meher growing areas is expected to favor the season's agricultural activities.