

NATIONAL METEOROLOGICAL SERVICES AGENCY

TEN DAY AGROMETEOROLOGICAL BULLETIN

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1-10 September, 2006 Vol. 16 No.25

Date of issue September 13, 2006

SUMMARY

During the second dekad of August 2006, the observed seasonal rainfall in terms of amount and distribution covered much of Meher growing areas of the country. Particularly, the observed seasonal rainfall over mid and highlands that are not flood prone areas had positive impact on crops, which are at different phenological stages. Besides the wet condition favored sowing activities in some areas. On the other hand, in terms of its persistency and strength resulted in water logging and over saturation on some crop fields. Moreover, this condition might create conducive condition for the outbreak of pests, which can be aggressive at the time of excess moisture condition. In addition to this, the observed persistent cloud coverage for consecutive dekads over the highlands could induce excess vegetative growth by minimizing thermal requirement of the crops that is important for normal growth and development of crops. In accordance to the crop phenological report Mezezo and Mota reported slight crop damage due to heavy rainfall and Gore reported flood damage on crop fields. On the contrary, the observed rainfall condition was favorable over most parts of the reporting stations. Some stations exhibited heavy fall within the range of (30.1-66.2mm) in one rainy day, to mention some of them, Pawe, Metema, A/A Bole, Aira, Chagni, Bedelle, Ambo Agriculture, Majete, Alge Nekemte, received 66.2, 65.0, 61.7, 58.2, 53.3, 50.0, 49.0, 48.7, 46.0, 44.0mm of heavy fall in one rainy days respectively.

During the first dekad of September, the observed seasonal rainfall distribution decreased from most parts of the country to some extent. However, some areas of northeastern (Combolcha, Bati, Majiete) central (Debre Zeit, Nazreth, Ginchi), western (Alge, Gore, Aira, Arjo, Bedele, Gimbi and Nedjo) northwestern (Gonder, Debre Tabor, Metema), northern (Shire) and eastern (Harar) parts of the country exhibited heavy fall ranging from 30-76 mm in one rainy day. Besides, from the aforementioned areas, Arjo, Bedelle, DebreTabor, and Metema recorded heavy rainfall for 2- 3 days in the ten days period. This condition could have a negative impact for normal growth and development of plants. Nevertheless, in accordance with the crop phenological report with the exception of few areas like Nedjo (reported slight crop damage due to heavy fall) and Wegel Tena (reported water logging) the condition of crops were in good a shape in most parts of the country. Generally, the observed rainfall distribution, (most parts of crop growing areas received falls in 5-10 rainy days during the ten days period) over Meher growing areas favored season's agricultural activities and have significant contribution for other vegetation as well. Among the reporting stations, Alge, Bati, Alemya, Metema, Shire, Majete, Gore, Nekemte, Gonder, A.A Obs, Nejo, Chagni, and Arjo recorded heavy falls amounting 76.0, 72.5, 70.2, 65.4, 58.4, 54.0, 51.7, 48.6, 47.4, 43.5, 43.0, 41.7, and 41.3 mm in one rainy days respectively.

1. WEATHER ASSESSMENT

1.1 SEPTEMBER 1-10, 2006

1.1.1 RAINFALL AMOUNT (Fig. 1)

Pocket areas of western, central and southwestern Amhara, parts of southeastern Bensahgul-Gumuz, western Oromia received 100-200mm of rainfall. Some parts of western Tigray, much of Amhara, central Oromia parts of northern and south western Bensangul-Gumuz, parts of northern Gambela, north and northwestern SNNPR, western Afar and pocket areas of northern Somali and southern

Oromia received 50-100mm of rainfall. Parts of western Tigray, southern Amhara, eastern and southern Oromia, western Afar and western SNNPR exhibited 25-50mm of rainfall. Parts of eastern Tigray, western Afar, southern Oromia, northern Somali, and southern SNNPR exhibited 5-25mm of rainfall. Little or no rainfall was observed for the rest parts of the country.

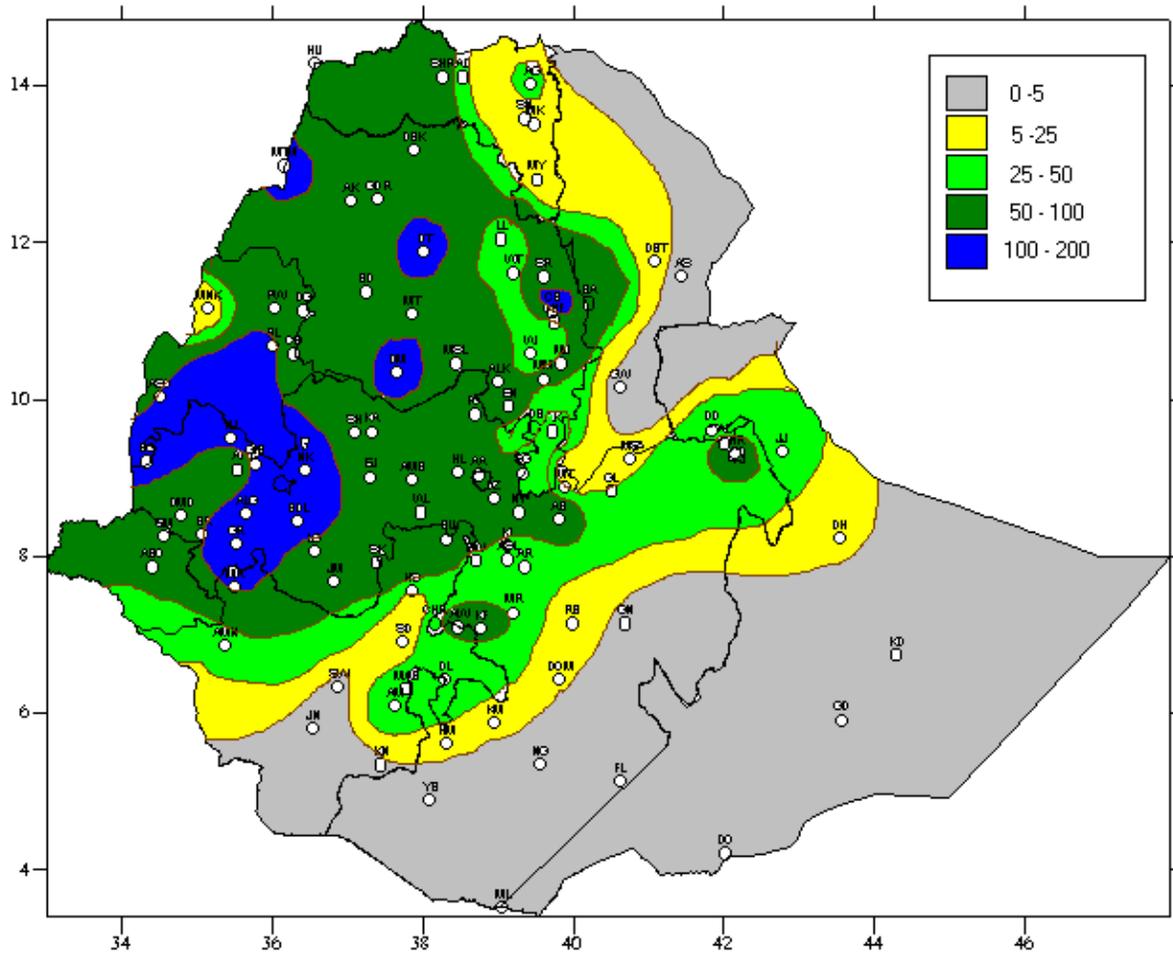


Fig 1. Rainfall distribution in mm (1 – 10 September, 2006)

1.1.2 RAINFALL ANOMALY (Fig. 2)

Tigray, much of Amhara, Bensangul-Gumuz, Gambela, central and western Oromia, parts of northwestern and western Afar, and eastern and southern oromia pocket areas of northern Somali exhibited normal to above normal rainfall, while the rest parts of the country experienced below to much below normal rainfall. Normally Kiremt is not a rainy season for southern Oromia and southern and southeastern Somali.

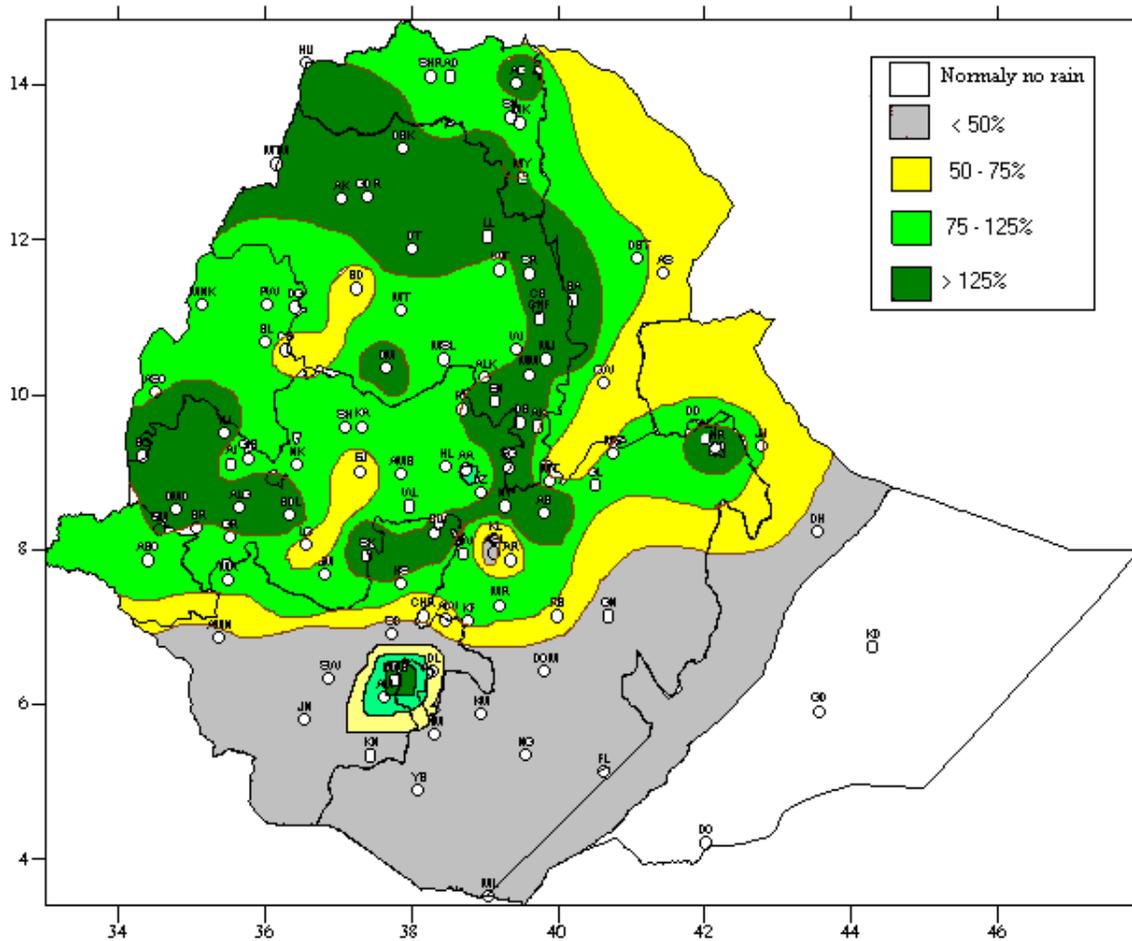


Fig.2 Percent of normal rainfall (1- 10 September, 2006)

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

1.1 TEMPERATURE ANOMALY

Some areas of eastern and northeastern parts of the country like Dubti, Semera, Assayta, exhibited extreme maximum temperature above 35 °C as high as 40.0, 39.5, and 39.2 °C respectively.

2. WEATHER OUTLOOK FOR THE SEOND DEKAD OF SEPTEMBER 2006

During the coming ten-days, the rain- bearing systems are expected to continue more or less in similar manner over western half of the country. Hence, western Tigray, western and central Amhara, Benshangul-Gumuz, Gambela, western and central oromia and northern portion of SNNPR will get normal to above normal rainfall. Besides, occasionally heavy falls accompanied by thunder and hail is likely to have across western Tigray and Amhara, Bensahgul-Gumuz, western and central oromia and Gambela as well as SNNPR region. Moreover, eastern Tigray and Amhara, southern half of SNNPR,

Dire Dawa, Harar, northern Somali and eastern and southern Oromia will receive close to normal rainfall. However, some section of the aforementioned area will be below normal. On the other hand, Afar and the adjoining northeastern parts of the country will have below normal rainfall with the domination of dry and sunny weather conditions. Southeastern portion of the country will be under partly cloudy conditions.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

The observed seasonal rainfall distribution decreased from most parts of the country to some extent during the dekad under review. However, some areas of northeastern (Combolcha, Bati, Majete) central (Debre Zeit, Adama, Ginchi), western (Alge, Gore, Aira, Arjo, Bedele, Gimbi and Nedjo) northwestern (Gonder, Debre Tabor, Metema), northern (Shire) and eastern (Harar) parts of the country exhibited heavy fall ranging from 30-76 mm in one rainy day. Besides, from the aforementioned areas, Arjo, Bedelle, DebreTabor, and Metema recorded heavy rainfall for 2- 3 days in the ten days period. This condition could have a negative impact for normal growth and development of plants. Nevertheless, in accordance with the crop phenological report with the exception of few areas like Nedjo (reported slight crop damage due to heavy fall) and Wegel Tena (reported water logging) the condition of crops were in good a shape in most parts of the country. Generally, the observed rainfall distribution, (most parts of crop growing areas received falls in 5-10 rainy days during the ten days period) over Meher growing areas favored season's agricultural activities and have significant contribution for other vegetation as well. Among the reporting stations, Alge, Bati, Alemya, Metema, Shire, Majete, Gore, Nekente, Gonder, A.A Obs, Nejo, Chagni, and Arjo recorded heavy falls amounting 76.0, 72.5, 70.2, 65.4, 58.4, 54.0, 51.7, 48.6, 47.4, 43.5, 43.0, 41.7, and 41.3 mm in one rainy days respectively. As the crop phenological report indicates, teff was at early vegetative stage in some areas of eastern and western Amhara (Majete, Dangla), western Oromia (Shambu), eastern Amhara (Bati), central Oromia (Arsi Robe, Fitcha,) northern SNNPR (Bui) southern Amhara (Enwary) and western Oromia (Sekoru). Maize was at wax ripeness in some areas of western Oromia (Nedjo, Aira, Gimbi, Sekoru) while at flowering stage in the same parts of the Region (Alge, Bedelle), and western Amhara (Chagni). It was at tassling and ninth leaf stage in some areas of eastern and western Amhara (Bati, Dangla) respectively. And maize was at full ripeness in some areas of southern Oromia (Kibre Mengist). Sorghum was at tillering and tassling stage in some areas of western Oromia (Assosa, Nedjo and Aira) respectively. Wheat was at tillering stage in some areas of central Oromia and southern Amhara (Kulumsa, Shola Gebeya) while it was at early vegetative stage in some areas of central Oromia (Fitcha), eastern Amhara (Wegel Tena) and northern SNNPR (Bui). Millet was at tassling in some areas of western Oromia (Nedjo, Limu Genet, Aira) while at third leaf stage in some areas of western Amhara (Chagni). Barely was at third leaf stage in some areas of western Amhara (Mota). Beans was at flowering stage in some areas of eastern and southern Amhara (Wegel Tena and Mehal Meda, Shola Gebeya, Enwary, Majete) including central Oromia (Kulumsa, Fitcha), while at emergence and budding stages in some areas of western Oromia like Chira and Shambu, respectively. Peas were at flowering and budding stages in some areas of eastern Amhara and northern SNNPR like Wegel Tena and Bui, respectively. Nug was at elongation stage in some areas of eastern Benshangul-Gumuz (Bullen) and southern Amhara (Alem Ketema).

3.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING DEKAD

The anticipated normal to above normal rainfall over western Tigray, western and central Amhara, Bensahngul-Gumuz, Gambela, western and central Oromia as well as northern parts of SNNPR would have a positive contribution in terms of crop water requirement for the existing crops which are at different phenological stages at this time of the year. Besides it would create favorable atmosphere for

seedbed preparation and sowing activities of pulse crops and it would also favor the recently sown cereal crops in some areas. The expected near normal rainfall distribution over eastern Tigray and Amhara, southern parts of SNNPR, Dire Draw, Harari, northern half of Somali including eastern and southern Oromia would make conducive condition for normal growth and development of plants. Moreover the expected near normal rainfall distribution particularly over south Oromia would have positive impact for the availability of pasture and drinking water over the lowlands of pastoral areas. In addition to this the expected rainfall would help the growth and development of short vegetation like bushes, which is easily palatable for browsers. The expected rainfall distribution over midlands of Oromia and southern parts of SNNPR would not only ease the moisture stress which was observed during the preceding dekad and also would have positive contribution for land preparation and sowing activities in the areas. Nevertheless, the anticipated below normal rainfall over the some of the aforementioned areas would have a negative impact on the normal growth and development of plants. Thus proper attention should be given for water harvesting particularly over the lowlands of the above mention areas so as to minimize the negative effect due to the expected deficient rainfall condition. On the other hand the anticipated dominant sunny weather condition together with little moisture over the Afar Region and adjoining areas of northeastern Ethiopia would favor the outbreak of pests. Therefore close monitoring and appropriate attention should be given for sensitive areas ahead of time to mitigate the effect of the expected adverse weather condition.