

NATIONAL METEOROLOGICAL SERVICES AGENCY

TEN DAY AGROMETEOROLOGICAL BULLETIN

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SUMMARY

During the third dekad of April 2004, below normal rainfall was observed over South Tigray, most parts of eastern half of Amhara, central and southeastern Oromiya. Western Oromiya, Gambela where as eastern parts of Benishangul Gumuz experienced better rainfall activity that could favour land preparation and sowing activities for long cycle crops over the areas. Some areas of western, southern, southwestern, northwestern, northeastern and eastern parts of the country exhibited heavy falls ranging from 30 – 61.5 mm of rainfall in one rainy day. For instance from the north like Maychew (47.3) mm; western parts of the country like Jima (44.3 mm) and Gambela (30.0); southwestern like Jinka (46.4 and 30.4), Sawula (30.0) and Konso (61.5); northeastern like Enewary (40.6 mm) and Ejaji (40.0 mm); southern like Yabelo (40.5 mm); northwestern like Dangila (37.0 mm) and Pawe (43.7 mm) and from eastern parts of the country like Alemaya (36.1 mm) exhibited heavy falls as indicated accordingly. This condition could result in water logging in low lying areas and soil erosion on sloppy areas. It could affect the sowing activities by washing away the newly sown seeds in areas where sowing activities are the main practices at this time of the year.

During the first dekad of May 2004, most parts of the country exhibited below to much below normal rainfall distribution. Thus, this condition could cause water stress on crops and result in wilting. For instance, Ziway reported wilting of maize due to water stress during the dekad under review. On the contrary, most parts of SNNPR, southwestern lowlands of Oromiya, pocket areas of central and eastern Amhara received normal to above normal rainfall. Besides, some areas received heavy falls ranging from 38 – 72 mm in one rainy day. Among the reporting stations Saula, Merab Abaya, Konso, Bati, Arsi Negelle, Sodo and Yabello recorded 38.0, 39.3, 43.4, 44.3, 46.2, 67.8 and 72.3 mm of rainfall in one rainy day respectively. As a result, some areas like Dembe Dolo reported crop damage and some reported flooding (Konso) due to heavy falls. Pursuant to the crop phenological report, sowing of maize and sorghum was under way in some areas of eastern and central Oromiya while maize was at emergence stage in eastern and central Oromiya; sorghum was at emergence and tasseling stages over western Oromiya and northern SNNPR, respectively. Teff was at flowering stage in some areas of eastern Amhara. Potato was at flowering stage in northern parts of SNNPR.

1. WEATHER ASSESSMENT

1.1 RAINFALL AMOUNT (Fig. 1)

Most parts of eastern half of Gambela, northern half SNNPR and parts of southwestern half of Oromiya received falls in the range of 50 – 100 mm; western half of Gambela, southern half of SNNPR and few areas of western and southern Oromiya received falls ranging from 25 – 50 mm; southern half of Amhara, southern half of Benishangul Gumuz, most parts of Oromiya, few areas of Afar and few areas of Somali received 5 – 25 mm; the rest of the country received falls below 5 mm.

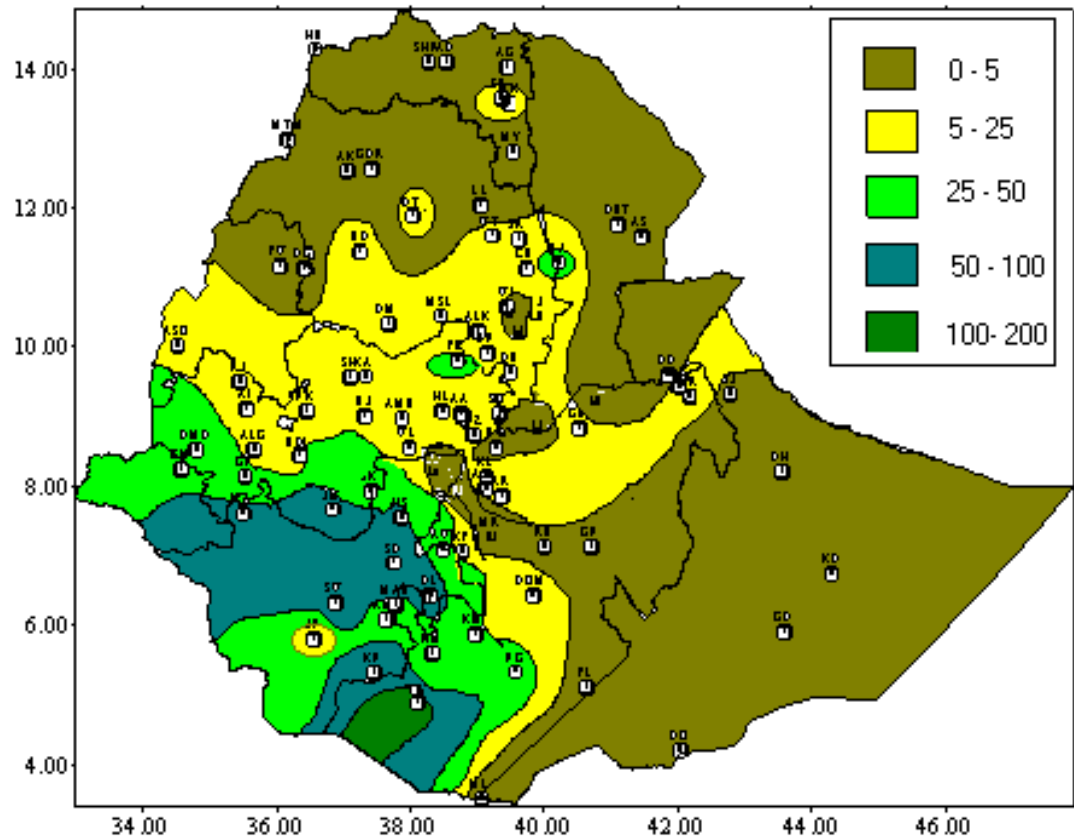


Fig 1. Rainfall distribution in mm (1-10, May 2004)

1.2 RAINFALL ANOMALY (Fig. 2)

With the exception of SNNPR, southwestern and pocket areas of western Oromiya and pocket areas of Amhara, most parts of the country exhibited below to much below normal rainfall.

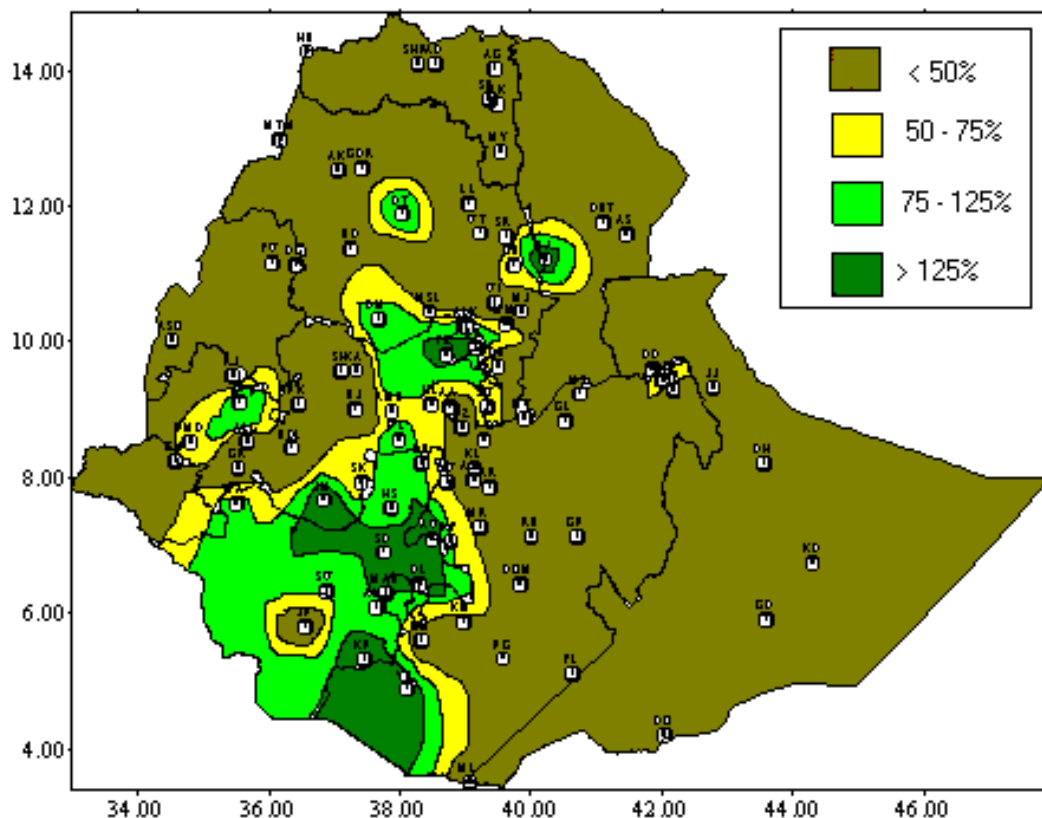


Fig.2 Percent of normal rainfall (1-10, May 2004)

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

1.3 TEMPERATURE ANOMALY

A rise in mean maximum temperature ranges from 1.9 – 4.2 °C has been observed over northeastern (Assayta and Dubti), eastern (Dire Dawa and Gewane) and southeastern lowlands (Gode) as well as along the Rift valley and its adjoining areas (Metahra). Thus, this condition could increase evapotranspiration in the areas and negatively affect the water requirements of the plant and availability of pasture and drinking water in pastoral areas.

2. WEATHER OUTLOOK FOR THE SECOND DEKAD OF MAY 2004

In the coming ten days, sunny weather condition will dominate over most parts of the country. However, the rain bearing systems are anticipated to have relative strength to produce rain over southern, southwestern and western parts of the country. Consequently, southern and western Oromiya, SNNPR, Gambela and Benishangul-Gumuz are anticipated to get near normal rainfall. Although central and eastern Oromiya, Amhara, Tigray, Afar and Somali will have light rain for a few days within the forecast period, dry weather condition will dominate through out the forecast period. Furthermore, the daily maximum temperature is expected to rise over northern western and southeastern lowlands as well as along the Rift valley and its adjoining areas.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

The observed below normal rainfall condition in most parts of the country could cause water stress on crops and result in wilting. For instance, Ziway reported wilting of maize due to water stress during the dekad under review. Besides, the persistence deficient rainfall condition over some areas of western Oromiya could delay sowing date of maize and sorghum as their sowing date start as of mid April in some areas. On the contrary, most parts of SNNPR, southwestern lowlands of Oromiya, pocket areas of central and eastern Amhara received normal to above normal rainfall. Besides, some areas received heavy falls ranging from 38 – 72 mm in one rainy day. As a result, some areas like Dembe Dolo reported crop damage and some reported flooding (Konso) due to heavy falls. Pursuant to the crop phenological report, sowing of maize and sorghum was under way in some areas of eastern and central Oromiya while maize was at emergence stage in eastern and central Oromiya; sorghum was at emergence and tasseling stages over western Oromiya and northern SNNPR, respectively. Teff was at flowering stage in some areas of eastern Amhara. Potato was at flowering stage in northern parts of SNNPR.

With regard to air temperature a rise in mean maximum temperature ranges from 1.9 – 4.2 °C has been observed over northeastern (Assayta and Dubti), eastern (Dire Dawa and Gewane) and southeastern lowlands (Gode) as well as along the Rift valley and its adjoining areas (Metahra). Thus, this condition could increase evapotranspiration in the areas and negatively affect the water requirements of the plant and availability of pasture and drinking water in pastoral areas.

3.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING DAKAD

The expected near normal rainfall over southern Oromiya would favour Gena season's agricultural activities over the areas. The anticipated near normal situation over Gambela and Benishangul Gumuz would favour land preparation for the coming Meher season. Besides, the expected similar condition over SNNPR would favour the recently sown crops and the crops, which are found at deferent phenological stage in the areas as well. On the other hand, the expected dominantly dry situation over central and eastern Oromiya, Amhara, Tigrai and Somali would exacerbate the water stress that had prevailed over the crops during the preceding dekads. In addition to that, the erratic rainfall situation would be favourable for the occurrence of pests. Moreover, attention is needed in areas where near normal rainfall is anticipated. Thus, water harvesting practices should be continue over those areas in order to mitigate the effect of moisture stress condition. The expected rise in the daily maximum temperature over northern western and southeastern lowlands as well as along the Rift valley and its adjoining areas would increase evapotranspiration in the areas, thereby causing water stress and negatively affecting the normal growth and development of plants in the area