NATIONAL METEOROLOGICAL SERVICES AGENCY
TEN DAY AGROMETEOROLOGICAL BULLETIN

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SUMMARY

During the first dekad of March 2004, the observed below to much below normal rainfall over much of country during 2004 has worsened the persisted moisture deficit over Belg producing areas since the beginning of February. Similarly the observed much below normal rainfall together with a raise in temperature over Afar, the lowlands of northwestern Amhara, and northern Benishangul-Gumuz including Gambela had negative effect on the availability of pasture and drinking water. Regarding air temperature Assaita, Dubti, Metema, Pawe and Gambela registered extreme maximum air temperature, which were as high as 36.6, 37.5, 40.2, 40.5 and 42°C respectively. This condition could maximize the rate of evapo-transpiration and negatively affected the normal growth and development of plants as well. Some highlands of central and eastern Oromiya, southern and southeastern Amhara, southern Tigray and northern SNNPR experienced extreme minimum temperature below 5°C during the dekad. In general the extended dryness may require alternate coping mechanisms of the season's agricultural activity such as replanting, use of short cycle and drought resistant variety of crops.

During the second dekad of March 2004, better rainfall activity has been observed in most parts of Belg growing areas. However, the situation is still under deficient moisture status over South and parts of eastern Tigray including parts of northeastern Amhara. Some areas from central, northeastern and eastern Ethiopia received heavy falls ranging from 30 – 50 mm and some areas reported crop damage due to heavy falls. With regard to maximum temperature, a slight decrease in maximum temperature (by about 1°C) was observed over Metema, Pawe and Gambela while the reverse was true for Assaita and Dubti (there was a rise by 2 – 2.1°C). A rise in minimum temperature has been observed over most parts of frost prone areas due to the observed cloud cover. Thus, this situation could favor the normal growth and development of plants.

1. WEATHER ASSESSMENT

1.1 RAINFALL AMOUNT (Fig. 1)

Pocket areas of southern Afar, eastern Amhara, central Oromiya and pocket areas of SNNPR exhibited falls greater than 50mm. Most parts of Afar, pocket areas of Tigray, most parts of western half of Amhara parts of western, eastern and southern Oromiya, western Gambela and parts of eastern SNNPR received falls ranging from 5 – 25 mm. Few areas of northeastern Tigray, parts of Afar, parts of eastern Amhara, central, southern and western Oromiya southeastern Gambela and most parts of SNNPR received fall in the rang of 25 –50 mm.

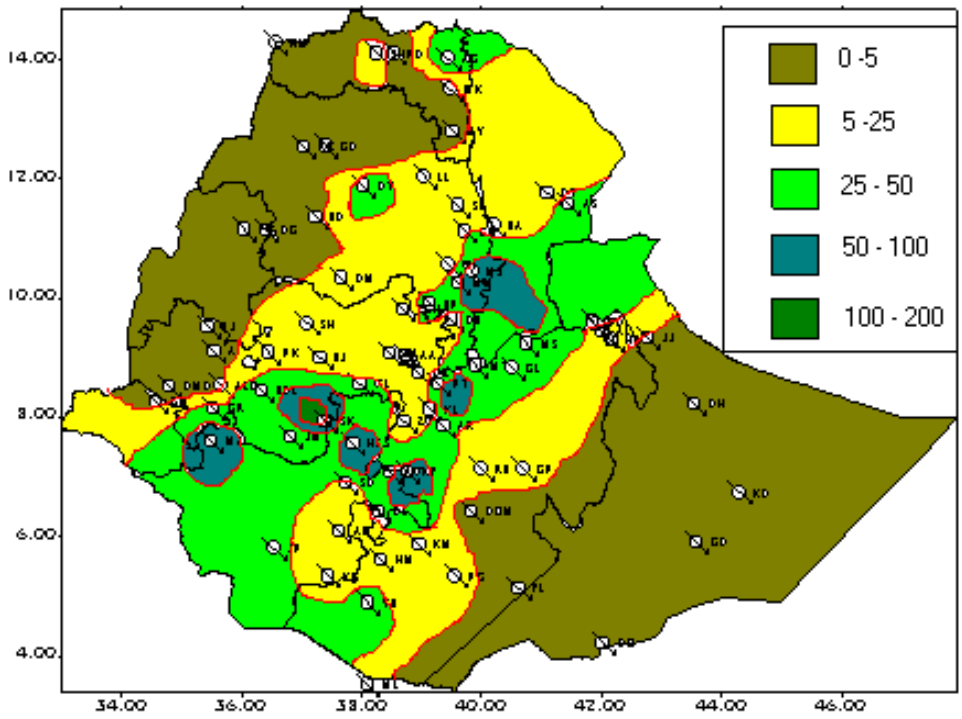

Fig 1. Rainfall distribution in mm (11-20, March 2004)

1.2 RAINFALL ANOMALY (Fig. 2)

Few areas of north and northeast Tigray, parts of central and eastern Amhara, most parts of Afar, northern Afar, parts of central southern and eastern Oromiya, most parts of SNNPR and southern half of Gambela experienced normal to above normal rainfall. The rest of the country was under below to much below normal rainfall.

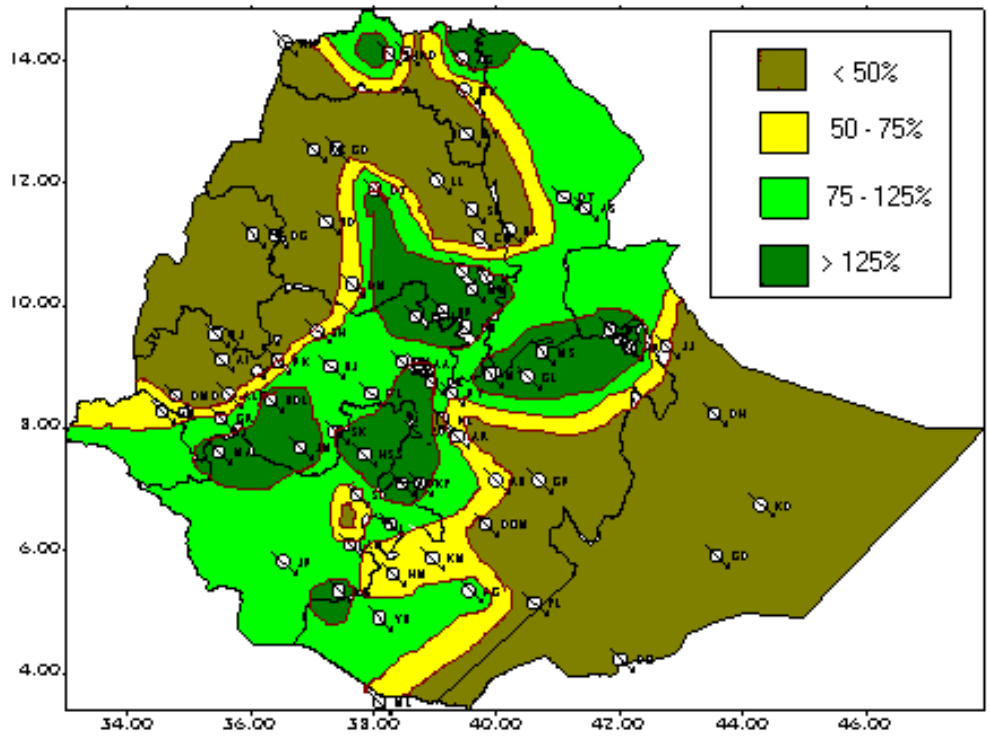

Fig.2 Percent of normal rainfall (11-20, March 2004)

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

1.3 TEMPERATURE ANOMALY

Some areas from the central highlands recorded minimum temperature less than 5°C. Among the reporting stations Meraro, Bui, Debre Birhan and Wegel Tena recorded 2.1, 3.0, 3.2 and 4.6°C extreme minimum temperatures during the dekad under review.

2. WEATHER OUTLOOK FOR THE THIRD DEKAD OF MARCH 2004

In the coming dekad, the rain bearing systems are expected to strengths relatively towards the end of the forecast period. Generally, eastern Tigray and much of the highlands of Amhara as well as pocket areas of western Oromiya will get near normal rainfall. However, much of Tigray, Afar, the lowlands of Amhara, Gambela, Benshengul Gummuz, SNNPR, Oromiya and Somali will have below normal rainfall. However, pocket areas of the above mentioned places are anticipated to get rainfall amount close to normal.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Better rainfall activity has been observed in most parts of Belg growing areas during the second dekad of March 2004. However, the situation is still under deficient moisture status over South and parts of eastern Tigray including parts of northeastern Amhara. Some areas from central, northeastern and eastern Ethiopia received heavy falls ranging from 30 – 50 mm and some areas reported crop damage due to heavy falls. With regard to maximum temperature, a slight decrease in maximum temperature (by about 1°C) was observed over Metema, Pawe and Gambela while the reverse was true for Assaita and Dubti (there was a rise by 2 – 2.1°C). A rise in minimum temperature has been observed over most parts of frost prone areas due to the observed cloud cover. Thus, this situation could favor the normal growth and development of plants.

3.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING DAKAD

Though the rainfall distribution covers most parts of Belg growing areas of the country some areas like South and eastern Tigray including northeastern Amhara are expected to be still under below normal condition during the preceding dekad. The anticipated normal rainfall over eastern Tigray, most parts of highlands of Amhara and few areas of highlands of western Oromiya would improve the deficient situation persisted in some areas of the aforementioned areas. However, proper water harvesting practices should be continued in the areas to minimize the possible deficient situation to be expected. On the other hand, the expected below normal rainfall over most parts of Tigray, lowlands of Amhara, SNNPR including most parts of Oromiya and Somali would exacerbate the prolonged dry situation particularly observed over Tigray, parts of northeastern Amhara and eastern SNNPR. Thus, those areas need attention. Moreover, in order to mitigate the effect of adverse weather situation attention should be given for water harvesting techniques in the areas.