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NATIONAL METEOROLOGICAL SERVICES AGENCY
TEN DAY AGROMETEOROLOGICAL BULLETIN

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FOREWARD

This Agro met Bulletin is prepared and disseminated by the National Meteorological Services Agency (NMSA). 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.

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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 January. 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 cover s southern, central, eastern and northeastern parts of the country.

CROP WATER REQUIREMENTS: - The amount of water needed to meet the water loss through evapotransipiration 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.

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During the third dekad of January 2004, northern and eastern SNNPR, western and central Oromiya including pocket areas of eastern Oromiya, pocket areas of northern Somali experienced normal to above normal rainfall distribution while the rest of the country exhibited below normal rainfall. Besides, regarding rainfall amount, northern SNNPR, pocket areas of southern, western and central Oromiya received falls ranges from 25-50 mm, much of SNNPR, much of Oromiya, pocket areas of northern Somali and southeastern Amhara received falls ranging from 5-25mm while the rest of the country received below 5 mm or no rainfall.

During the first dekad of February 2004, eastern half of SNNPR, northwestern and southeastern Amhara, central and southern Oromiya experienced normal to above normal rainfall while the rest parts of the country received below normal rainfall. The observed below normal rainfall over northern SNNPR and eastern half of Tigray would decrease the moisture content of the soil over the above-mentioned Belg benefiting areas; and this situation could have negative impact on season's agricultural activities. In addition to this, the persisted dry weather situation over Afar, Somali, eastern Oromiya, Gambella aggravated the scarcity of pasture and drinking water over the aforementioned places. The reverse is true over southeastern Amhara, central and southern Oromiya as well as northern and northeastern SNNPR. Regarding air temperature, Dangila registered extreme minimum air temperature below 5°C for eight consecutive days. On the contrary, Gambella reported extreme maximum air temperature above 35°C for ten consecutive days, this extreme maximum air temperature resulted in high evapo-transpiration over those areas and may have negative impact on the physiological processes of plants and the well being of animals.

1. WEATHER ASSESSMENT

1.1 RAINFALL AMOUNT (Fig. 1)

Pocket areas of eastern SNNPR and pocket areas of eastern Amhara received falls ranging from above 50 mm, pocket areas of eastern SNNPR, pocket areas of southern Oromiya received falls ranging from 5-25mm while the rest the country received below 25 mm or no rainfall.

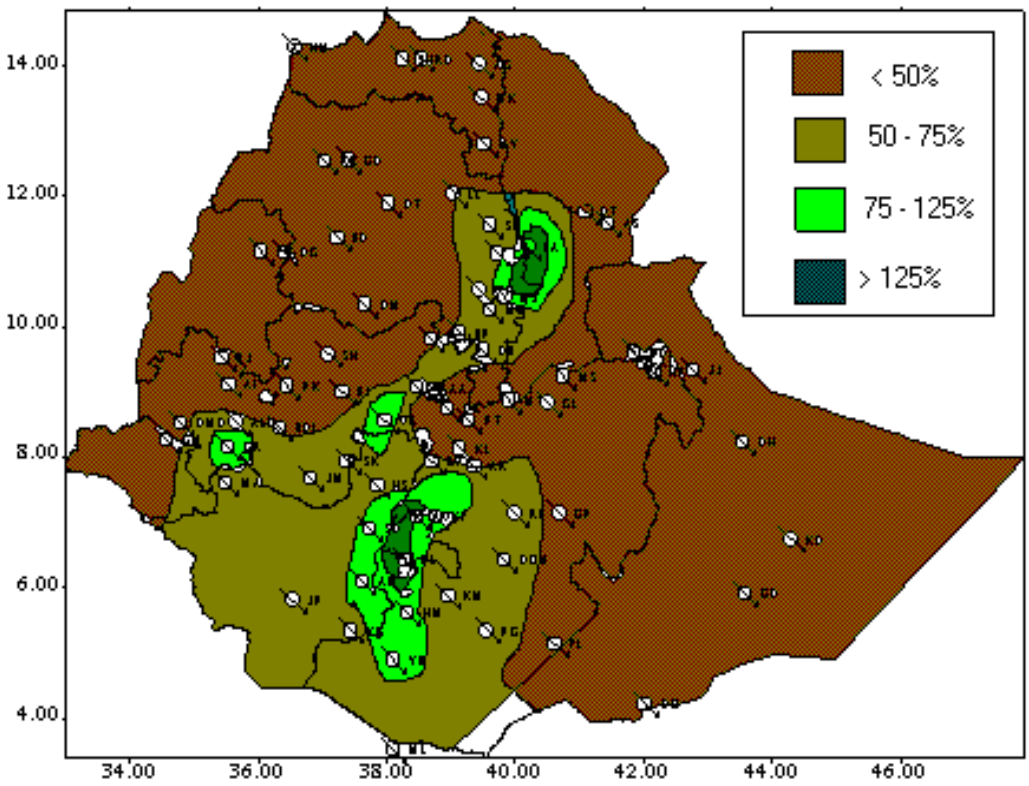

Fig 1. Rainfall distribution in mm (1-10, February 2004)

1.2 RAINFALL ANOMALY (Fig. 2)

Northwestern and southeastern Amhara, central and southern Oromiya experienced normal to above normal rainfall while the rest parts of the country were below normal rainfall.

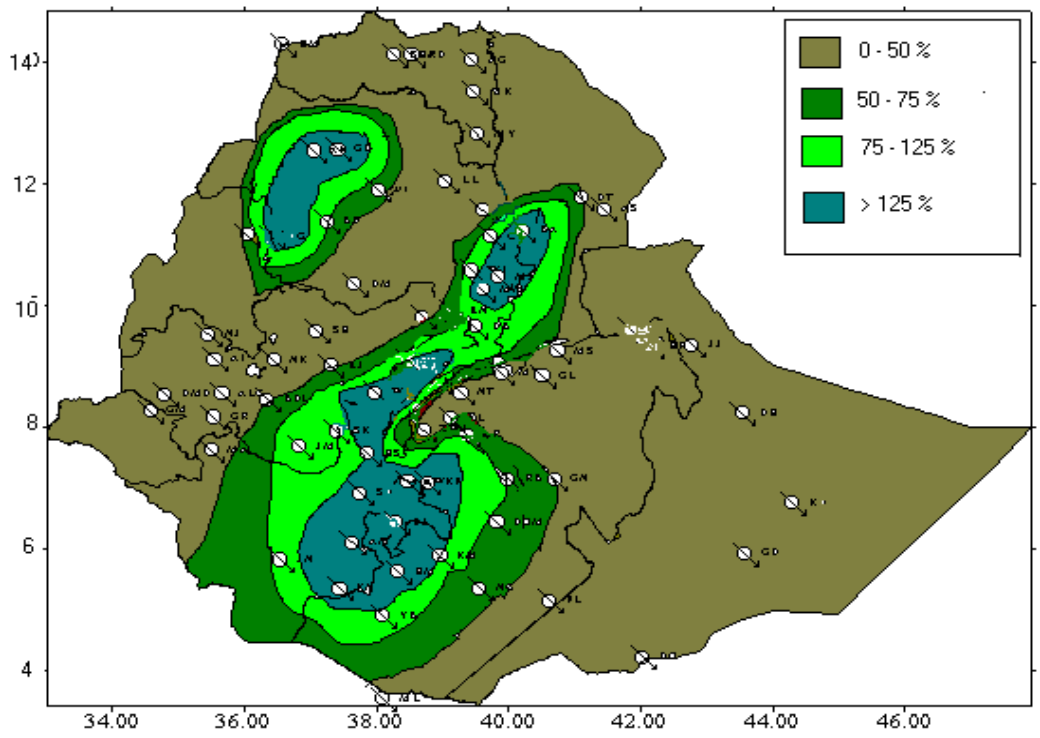

Fig.2 Percent of normal rainfall (1-10, February 2004)

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

1.3 TEMPERATURE ANOMALY

Dangila registered extreme minimum air temperature below 5°C for eight consecutive days. On the contrary, Gambela reported extreme maximum air temperature above 35°C for ten consecutive days, this extreme maximum air temperature resulted in high evapo-transpiration over those areas and may have negative impact on the physiological processes of plants and the well being of animals.

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2. WEATHER OUTLOOK FOR THE SECOND DEKAD OF FEBRUARY 2004

Under normal circumstance, SNNPR and its adjoining areas of Gambella and Oromiya as well as eastern Amhara have a mean rainfall amount 15-30 mm whereas most parts of the Rift Valley and adjoining areas receive less than 15 mm. However, the rest parts of the country remain dry during this dekade. In the coming ten days, the weather system that is responsible for dry and sunny weather conditions will dominate much of the country. Hence, the daily minimum temperature will fall relatively over various parts of the country. Nevertheless, southern, southwestern and northwestern Ethiopia is anticipated to get rain showers for few days. Furthermore, incursion of moisture will increase over the country towards the end of the forecast period. Generally, Benishangul-Gumuz, Gambella, SNNPR, Oromiya, eastern Amhara, Tigray, Afar and Somali are expected to get below normal rainfall. On the other hand, few places of western Amhara are anticipated to have close normal rainfall.

3. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

3.1 VEGETATION CONDITION AND IMPACT ON AGRICULTURE

The observed below normal rainfall over northern SNNPR and eastern half of Tigray would decrease the moisture content of the soil over the above-mentioned Belg benefiting areas; and this situation could have negative impact on season's agricultural activities. In addition to this, the persisted dry weather situation over Afar, Somali, eastern Oromiya, Gambela aggravated the scarcity of pasture and drinking water over the aforementioned places. The reverse is true over southeastern Amhara, central and southern Oromiya as well as northern and northeastern SNNPR. Regarding air temperature, Dangila registered extreme minimum air temperature below 5°C for eight consecutive days. On the contrary, Gambela reported extreme maximum air temperature above 35°C for ten consecutive days, this extreme maximum air temperature resulted in high evapo-transpiration over those areas and had negative impact on the physiological processes of plants and the well being of animals as well.

3.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING DEKAD

In the coming dekad, the anticipated below normal rainfall distribution over SNNPR, eastern Amhara and Tigray will have negative impact over those areas which begin their Belg agricultural activities earlier like eastern Amhara and Tigray. However, at the end of the dekad the incursion of moisture is expected over most parts of Ethiopia. Thus, this condition would minimize the effect of dry situation towards the end of the dekad. In addition to this, the expected below normal rainfall over Afar and Somali would create negative impact on the availability of pasture and drinking water.