

### SUMMARY

During the first dekad of August 2017, rain bearing meteorological phenomena was strengthening in amount and distribution over most kiremt rain benefiting areas of the country. In line with this, Tigray, Amhara, Benshangul-Gumuze, Gambela, SNNPR, much of Oromia, Afar, Dire Dawa, Harari and Somali zone of Jijiga and Shinele received slight to heavy rainfall. This situation might have positive impact on early sown long cycle crops (Maize, sorghum) which were at different phenological stages, perennial plant as well as late sown cereals crops like (Teff, wheat and barley), pulse (beans, peas and haricot beans) and oil crops. Besides these, it improved pasture and drinking water availability in the north eastern low lands of pastoral and agro pastoral areas of the country. On the other hand, extreme heavy fall (53.6 – 120.0) mm in one rainy day recorded over southwestern, southern and northern parts of the country. Due to the pronounced widespread and intensified rainfall over some places of the aforementioned areas might resulted in crop and perennial plants damage, which were attaining at different phenological stages and result in over saturation and water logging in crop fields; the situation is more severe on crop fields where low-lying areas and the soil type is clay.

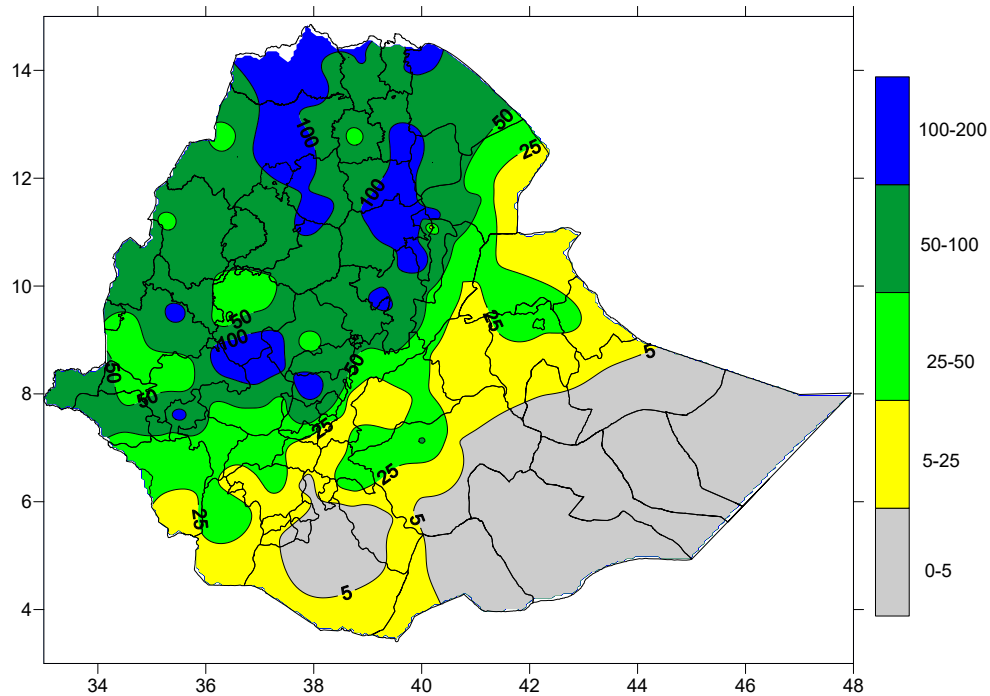
During the second dekad of August 2017, rainfall both in amount and distribution was cover over most meher producing areas of the country. In line with this, Tigray, Amhara, Benshangul-Gumuze, Gambela, SNNPR, much of Oromia, Afar, Dire Dawa, Harare and Somali region of Jijiga and Shenele zone received slight to heavy rainfall. This situation might have positive impact on moisture requirement of Meher crops found at various phases of growth, perennial plants and general agricultural activities. Besides these, it improved pasture and drinking water availability in the north eastern low lands of pastoral and agro pastoral areas of the country. On the other hand, On the other hand, occasional heavy fall ranging from 31.2 - 65.8 mm in one rainy day observed over southwestern, southern northern and central high lands of the country.

As a result, heavy falls over the highland caused flash flood over low-lying flood prone areas might result crop damage and livestock losses in some places of the affirmations areas.

## 1. WEATHER ASSESSMENT

11-20 August, 2017

### 1.1 RAINFALL AMOUNT (Fig.1)



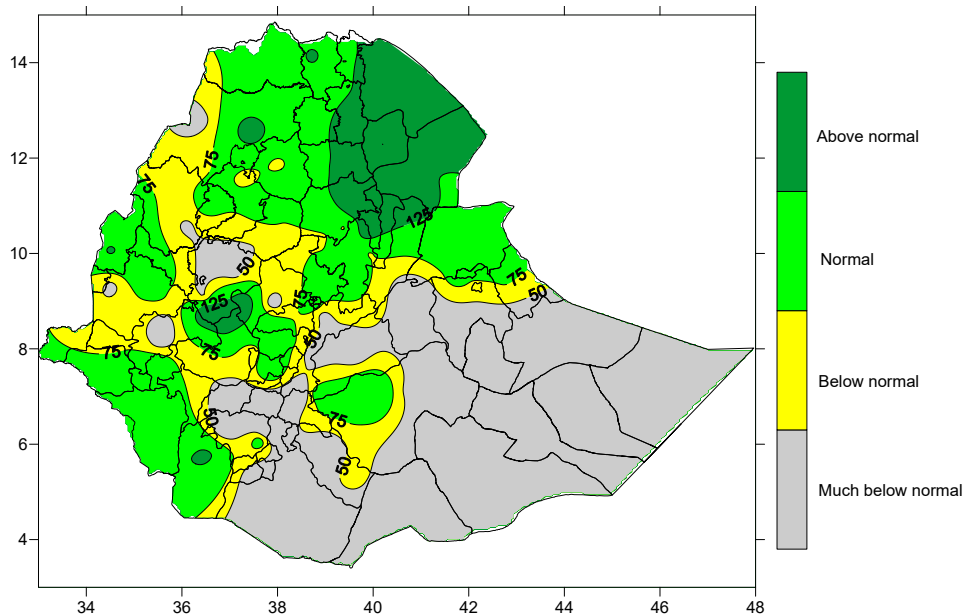
**Fig. 1. Rainfall distribution in mm (11-20 August, 2017)**

Most places of west Tigray, east Tigray, north & south Gonder, south Tigray, north & south Wollo, Oromia special zone, southern part of east Wellega, pocket area of Afar zone 2, Gurage and sheka we received 100 – 200 mm of rainfall. central & east Tigray, Mekele, Waghmra, Afar

zone 1, 2, 4 & 5, wester part of north Gonder, Bahirdar, west & east Gojam, Agewu(Awi), Metekel, Asosa, kamashi, Tongo, west Wellega, Jimma, north Shewa, Addis Ababa, south west Shewa, Selti, Godere and Gambela zone 2 & 3 zones exhibited 50-100 mm of rainfall. Pocket area of Waghmra & Metekel, east Wellega, gambela zone 1, western part of Illubabur, Afar zone 3, Harer, pocket area of Bale, KT, Keffa, Dawuro, Bench maji, south Omo and east Shewa exhibited 25-50mm of rainfall. Shinile, Jijiga, west Harergie, Hadiya, Welayita, Sidama, Gedeo, Basketo, Derashi and Konso exhibited 5-25 mm of rainfall. The rest parts of the country exhibited no rainfall.

### 1.2 RAINFALL ANOMALY (Fig.2)

East, central & west Tigray, south gonder, Bahrdar, west & east gojam, south wollo, Agewu, Metekel, Asosa, Kamashi, east Wellega, north Shewa, west Shewa, Addis Ababa, Afar zone 3 & 5, Shinile, Harer, east & west Harergie, south west Shewa, east Shewa, pocket area of Arsi & Bale, guragie, Silte, Alaba, Hadya, Sidama, Welayita, Gedeo, Dawuro, Basketo, Gamogofa, South Omo, Derashi, konso, Burji, Bench maji ,Keffa and Sheka received normal to above normal rainfall. The rest part of the country received below normal to much below normal rainfall.



**Fig2. Percent of normal rainfall distribution (11-20 August, 2017)**

**Explanatory notes for the legend:**

**< 50 -- Much below normal**

**50—75% -- below normal**

**75—125% --- Normal**

**>125% ---- Above normal**

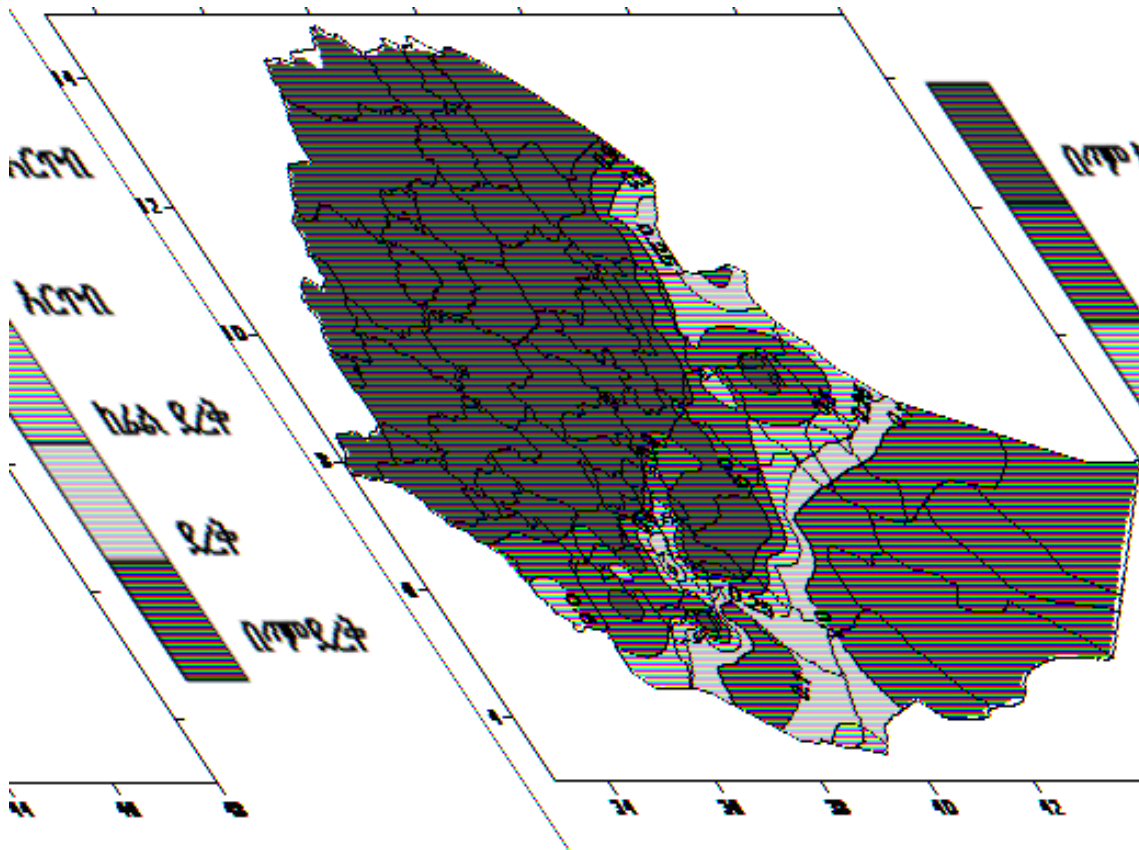
### **1.3. TEMPERATURE ANOMALY**

Some stations recorded extreme maximum temperature greater than 35 °C 3 to 10 days. Among reporting stations: Gode, Methara, Asayita, Awash Arba, Aysha, Chifra, Dalifagi, Dubti, Elidar, Gambela, Gewane, Mille and Semera recorded 37.6, 42.0, 37.3, 43.5, 40.0, 38.1, 41.2, 41.2, 35.2, 37.2, 39.4 and 42.0 °C, respectively. The situation might have caused a negative impact on the normal growth and development of plants and livestock.

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

### **2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE**

The dekad under review, rain bearing meteorological phenomena was strengthening in amount and distribution over most Meher producing areas of the country. In line with this, Tigray, Amhara, Benshangul-Gumuze, Gambela, SNNPR, much of Oromia, Afar, Dire Dawa, Harare and Somali region of Jijiga and Shenele zone received slight to heavy rainfall. This situation might have positive impact on moisture requirement of Meher crops found at various phases of growth, perennial plants and general agricultural activities. Besides these, it improved pasture and drinking water availability in the north eastern low lands of pastoral and agro pastoral areas of the country. On the other hand, occasional heavy fall ranging from 31.2 - 65.8 mm in one rainy day observed over southwestern, southern northern and central high lands of the country. As a result, heavy falls over the highland caused flash flood over low-lying flood prone areas might result crop damage and livestock losses in some places of the affirmations areas.



**Fig.3 Moisture Status for (11-20 August, 2017)**

As moisture status map above (the relationship between total dekadal rainfall and the dekadal total reference evapotranspiration) during the second dekad of August 2017 indicated that (see

Fig 3). Except south eastern margin of Afar, northern tip and southern Somali, southern Oromia and southern tip of SNNPR exhibited moist to humid moisture condition. This condition favors the ongoing Meher agricultural activities and improves pasture and drinking water availability in postural and agro pastoral areas of the country as well.

## **2.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING DECKED**

In the coming third dekad of August 2017, the meteorological forecasted information indicates that the seasonal rainfall activity is expected to continue over various meher producing area of the country. As a result, much of Oromia, Amhara, Tigray, SNNPR, Gambela, Benshangu gumuze regions expected to received Moist to humid moisture situation. This situation would have a positive contribution for the water requirement of the existing meher crops, which are at different phenological phases. Besides it would have a positive contribution for perennial plants and the availability of pasture and drinking water in pastoral and agro pastoral areas of eastern and northeastern parts of the country. On the other hand, the expected above normal rainfall over some areas may result in heavy falls it might lead to water logging and crop damage on crop fields found in low-lying areas and near riverbanks including in areas where the soil type is clay. Thus, proper attention should be undertaken to minimize the risk in areas where there is no proper drainage system and making furrow and channel in order to reduce the effect of excess rain. Besides, the expected little or no rainfall over some areas would affect the water requirement of crops and pasture as well. Hence we advise farmers wisely utilize the water obtained from the rain as well as use water harvesting techniques.