

### SUMMARY

During the third dekad of July 2017, most of Meher crops growing areas have exhibited better rainfall in amount and distribution when it compare with the previous dekads. Some areas also experienced heavy fall ranging from 30.5 to 69.7 mm of rain within 24 hours. It is believed that such a weather condition could give an opportunity to collect and store rain water for areas often face water stress problem. The condition also might have positive implication to enhance the soil moisture availability and hereby could satisfy water need of crops which are found at different growing stage. It also could have a significant implication for the supply of drinking water and pasture over pastoral and agro pastoral areas. Moreover, its advancement toward the northeast and the east part of the country could give some relief to areas which have encountered series water stress during the previous dekads.

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.

## 1. WEATHER ASSESSMENT

1-10 August, 2017

### 1.1 RAINFALL AMOUNT (Fig.1)

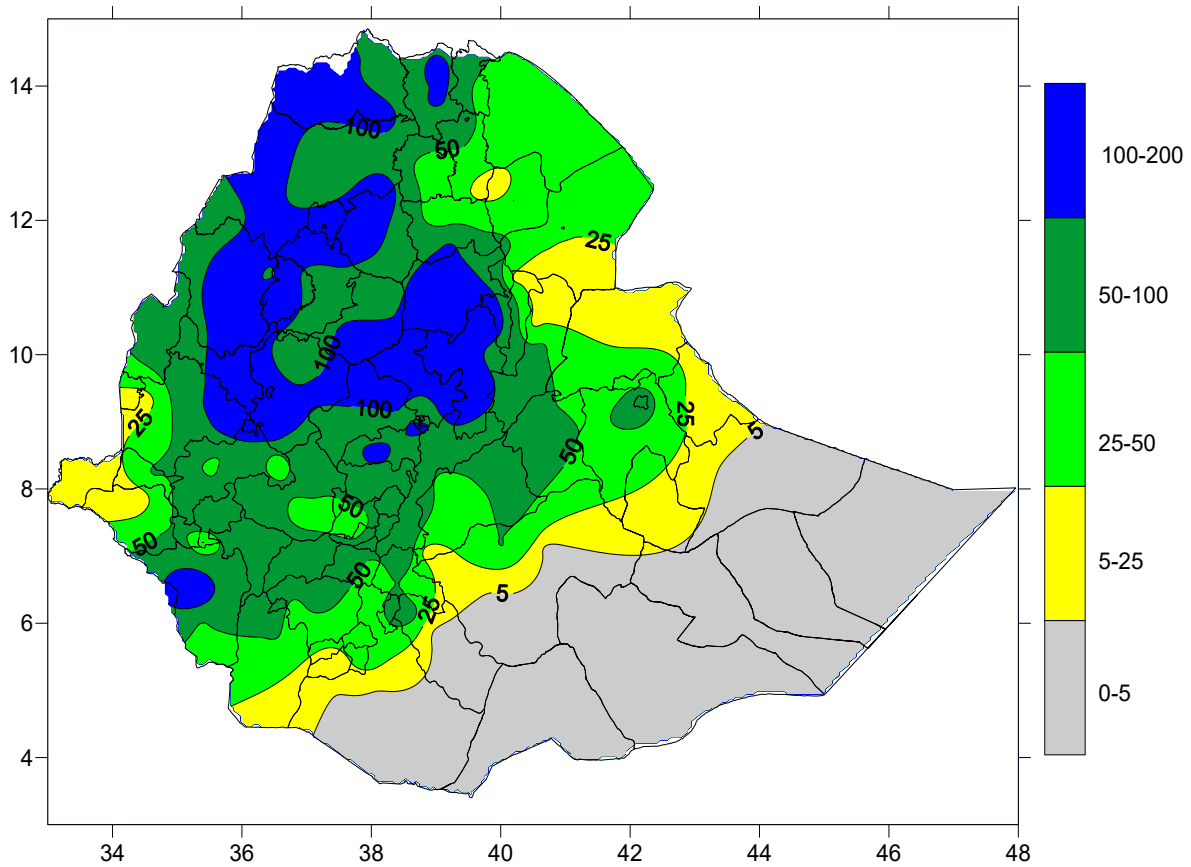
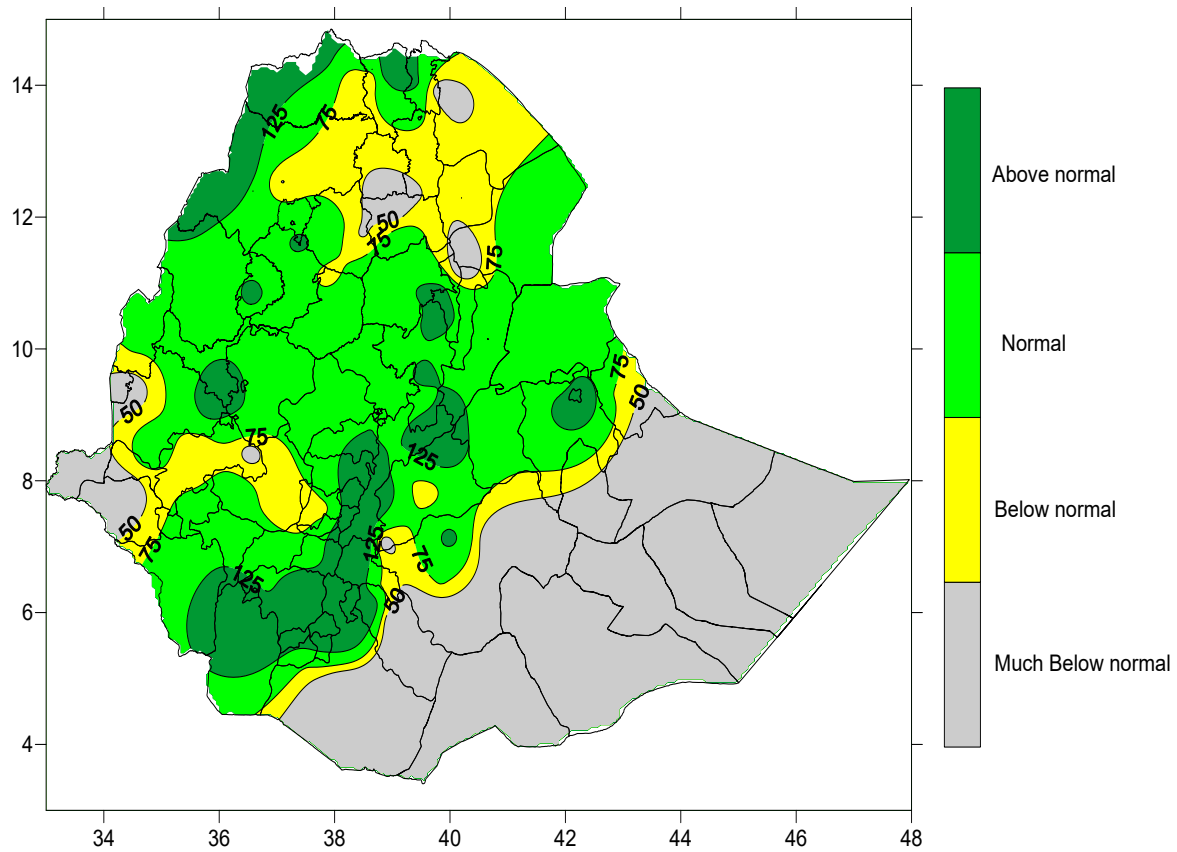


Fig. 1. Rainfall distribution in mm (1-10 August 2017)

Most part of west Tigray, pocket are of central Tigray, west part of north gonder, south gonder, Bahirdar, Agewu(Awi), Metekel, Kamashi, east Wellega, north shewa, south wollo and Bench Maji zone we received 100 – 200 mm of rainfall. Most part of east & central Tigray, Mekele, west part of Waghmra, north Gonder, north Wollo, eastern part of south Gonder, west Gojam, east Gojam, Oromia special zone, Afar zone 3 & 5, Harer, west Harergie, east Shewa, eastern Arsi, south west Shewa, Addis Ababa, Gurgie, silte, west Shewa, Alaba, Hadiya, Sidama, Welayita, Gedeo, Dawuro, Gamogofa, Basketo, Keffa, Bench maji, Godere, Sheka, Illubabur, Jimma, east Wellega and Asosa zones exhibited 50-100 mm of rainfall. Afar zone 2,4 & northern part of zone 1, south Tigray, east Waghmra, north Wollo, east Harergie, Arsi, Sidama, Derashi, south Omo, Yem, Gambela zone 1 and west Wellega exhibited 25-50mm of rainfall. Pocket area of Afar zone 1 & 4, Shinle, Jijiga, Fik, Bale, Konso, Amaro, Gambela zone 2 & 3 and Tongo 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 (1-10 August, 2017)**

**Explanatory notes for the legend:**

- < 50 -- Much below normal**
- 50—75% -- below normal**
- 75—125% --- Normal**
- >125% ---- Above normal**

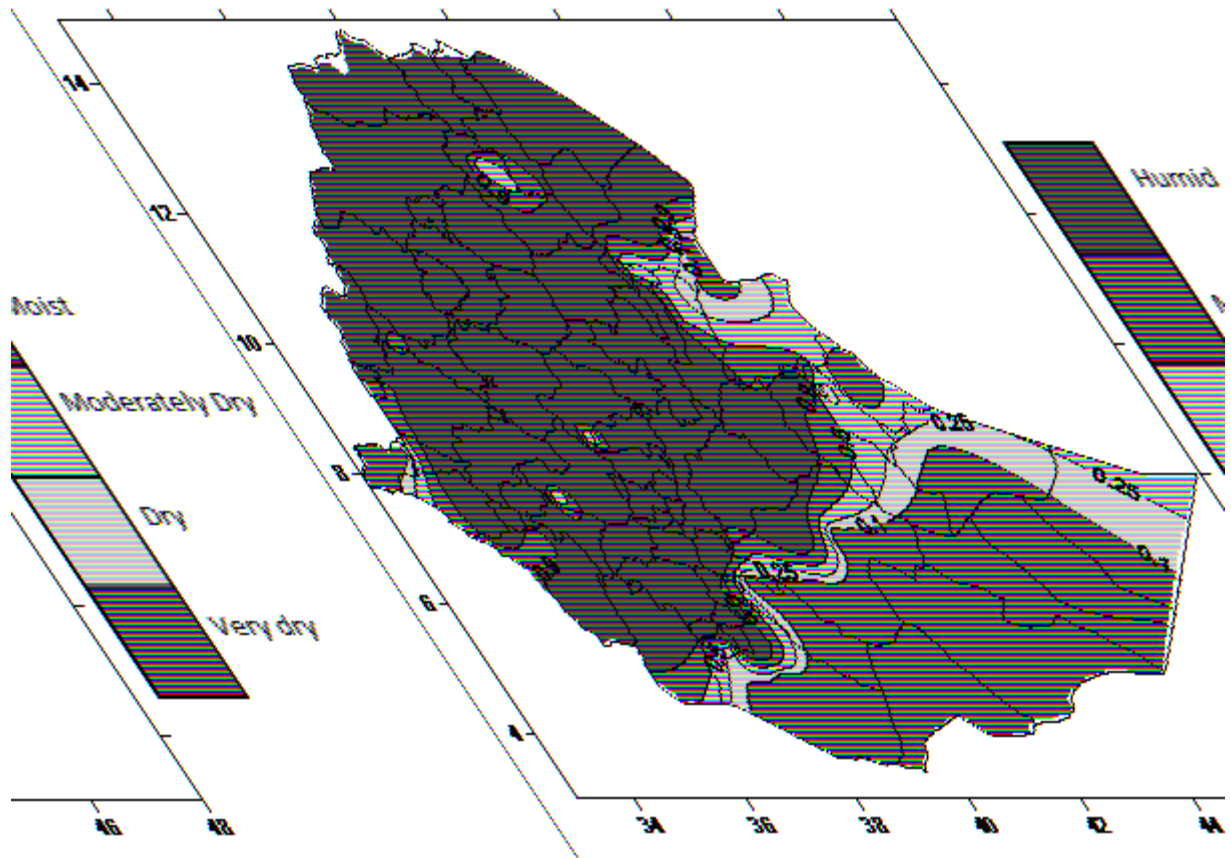
### **1.3. TEMPERATURE ANOMALY**

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, Gewane, Mile and Semera recorded 36.6, 36.2, 45.0, 38.5, 44.0, 43.0, 39.0, 43.2, 42.4, 40.2, 41.0, and 44.4 °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 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.



**Fig.3 Moisture Status for (1-10 August, 2017)**

As moisture status map above (the relationship between total dekadal rainfall and the dekadal total reference evapotranspiration) during the first dekad of August 2017 indicated that (see Fig 3). Except parts of southern Afar, northern tip and southern Somali, southern Oromia and western parts of Gambela 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 second dekad of August 2017, the meteorological forecast information indicates that the seasonal rainfall activity is expected to continue over much of Kiremt rainfall benefiting area of the country. In line with this some parts of Oromia, Amhara, Tigray, SNNPR Gambela and Benshangul-Gumuze expected moist to humid moisture status. This situation would have a positive contribution for areas which prevailed dry condition in the previous dekad. It also will have a positive impact on crops, which are at different phenological stages in terms of crop water requirement. 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. In order to alleviate such adverse condition, prevention technique like channeling had better be strengthened over the flood prone areas. Moreover, the continuous and widespread rainfall over some parts might create conducive condition for weed infestation which can be aggressive at the time of excess moisture condition. Therefore proper attention should be taken to minimize the risk due to the expected excesses moisture condition. Nevertheless, the expected below normal rainfall over some places of the above-mentioned 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.