#### **SUMMARY**

During the first dekad of September 2017, rain bearing meteorological phenomena was strengthening in amount and distribution over most kiremt rain benefiting areas of the country. In line with this, western, central and eastern zone of Tigray, Amhara, Benshangul-Gumuze, Gambela, SNNPR, much of Oromia, Dire Dawa, Harari and Afar zone 3 and 5 received normal to above normal rainfall. This situation might have positive impact on early sown long cycle crops which were at different phonological stages, perennial plant as well as late sown cereals crops, pulses and oil crops. Besides these, it improved pasture and drinking water availability in the eastern and north eastern low lands of pastoral and agro pastoral areas of the country. Moreover at the end of the dekad the southern part of the country received slight to heavy rainfall the situation was favor general agricultural activities of the area. Besides, due to the recorded heavy rainfall together with hailstorm in some parts of the country might have positive impact on the ongoing Meher agricultural activities normally water deficit areas for water harvesting On the other hand, the observed heavy falls over some places of aforementioned areas may cause flood and water logging on crops field which might resulted in crop and perennial plants damage, which were attaining at different phonological stages.

During the second dekad of September good moisture condition has persisted in most part of Meher crop growing areas and has gradually extended to the second rain benefiting areas of the south and southeast part of the country. In line with this, over Mytsemri 84.9 and 45.8, Nekemt 72.0 and 31.3, Qura 65.7 and 63.0, Tercha 64.2, Sawla 64.2 and 41.4, Bahirdar 52.4, Abebo 55.5, Dangla 54.4 and 31.0, Addis Abeba (Bole) 53.5 and 33.2, Addis Abeba (Observatory) 41.7 and 37.3, Begi 44.6 and 38.1, Bore 40.9 and 35.0, Arjo 42.4 and 36.8, Aira 42.5 and 34.8, Ijaji 40.8 and 30.1, Gambella 43.0 and 30.6, Gore 37.8 and 31.2, Maji 46.4, 40.6 and 38.0, Bure 41.7 and

39.4, Alege 47.0, Bedele 47.4, Chira 46.0, Dolomena 34.0, Gimbi 38.3, Hosana 32.2 and Chewaka 43.5 mm of heavy fall was observed.

In most cases, such amount of received rain water might favors both long cycle crops which were planted at earlier time and short cycle Meher crops, such as Cereal, Pelsus, and Oil crops, which were planted or re-planted lately and now found at different growing stages. In addition, the southward advancement of the weather system might be positive particularly for the second rain benefiting areas for the overall Bega season agricultural activities, like for land preparation, collecting and storing of water, planting crops and seedling etc. Moreover, the received normal to above normal amount of moisture in the pastoral and agro pastoral areas might play significant role in improving pasture and drinking water.

On the other hand, adverse weather was reported from different regions of the country and among, heavy fall with hail, flash flood, lighting and water logging were the most and as a result various level of damage on crops, livestock, properties, infrastructures and human life has observed.

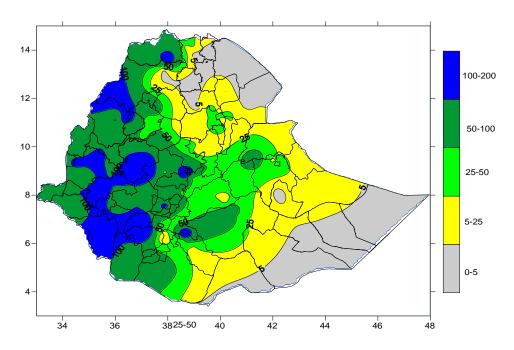


Fig 1. Rainfall distribution in mm (11 – 20 September 2017)

### 1. WEATHER ASSESSMENT

## 1.1. Rainfall amount (Fig.1)

Pocket area of west Tigray, northern part of Metekel, west part of north Gonder, east & west Wellega, Addis Ababa, Illubabur, Sheka, Godere, Kefa, Dawuro, Bench Maji and Basketo have received 100-200 mm of rainfall. west Tigray, north Gonder, Bahirdar, Agew, Metekel, Assosa, Kamashi, Tongo, north & west Shewa, south & west Shewa, Gurage, Silte, Alaba, Hadiya, KT, Wolayita, Bale, Jimma, Yem, Gamogofa, Derashi, Konso, Burji, Amaro, Borena, south Omo, Gambela zone 1,2 & 3, exhibited 50-100 mm of rainfall. north Gonder, central Tigray, east & west Gojam, Oromia special zone, Harer, east & west Harergie, Arsi, east Shewa, Sidama, Gedeo and eastern Bale exhibited 25-50 mm of rainfall. Central Tigray, north Wollo, Afar zone 4 & 1, south Wollo, Shinle, Jijiga, Deghabur, Liben and Guji have exhibited 5-25 mm of rainfall. The rest parts of the country have exhibited 0-5 mm of rainfall.

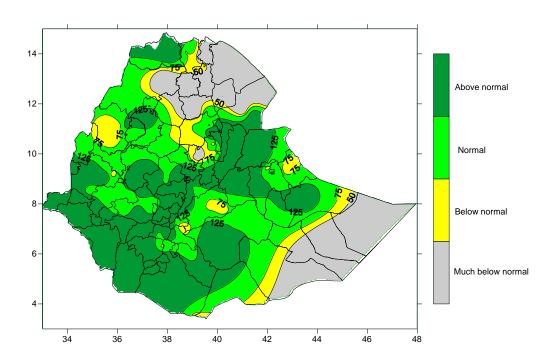


Fig. 2 Percent of normal rainfall distribution (11 – 20 September 2017)

Explanatory notes for the Legend

< 50-Much below normal

50-75%-Below normal

75-125%- Normal

> 125% - Above normal

1.1.2 Rainfall Anomaly (Fig. 2)

Most parts of the country exhibited normal to above normal rainfall over Pocket area of west Tigray, northern part of Metekel, west part of north Gonder, east & west Wellega, Addis Ababa, Illubabur, Sheka, Godere , Kefa, Dawuro, Bench Maji, Basketo, west Tigray, north Gonder, Bahirdar, Agew, Metekel, Assosa, Kamashi, Tongo, north & west Shewa, south & west Shewa, Gurage, Silte, Alaba, Hadiya, KT, Wolayita, Bale, Jimma, Yem, Gamogofa, Derashi, Konso, Burji, Amaro, Borena, south Omo, Gambela zone 1,2 & 3,. The rest part of the country have received from much below normal to below normal rainfall

### 1.3. TEMPERATURE ANOMALY

Some stations recorded extreme maximum temperature greater than 35 °C 3 to 10 days. Among reporting stations: Methara, Asayita, Awash Arba, Aysha, Chifra, Dalifagi, Dubti, Elidar, Gewane, Mile, Gembela, Tsitsika, Samre and Semera recorded. 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 collected and analyzed agro meteorological information indicated that during the second dekad of September good moisture condition has persisted in most part of Meher crop growing areas and has gradually extended to the second rain benefiting areas of the south and southeast part of the country. In line with this, over Mytsemri 84.9 and 45.8, Nekemt 72.0 and 31.3, Qra 65.7 and 63.0, Tercha 64.2, Sawla 64.2 and 41.4, Bahirdar 52.4, Abebo 55.5, Dangla 54.4 and 31.0, Addis Ababa (Bole) 53.5 and 33.2, Addis Ababa (Observatory) 41.7 and 37.3, Begi 44.6 and 38.1, Bore 40.9 and 35.0, Arjo 42.4 and 36.8, Aira 42.5 and 34.8, Ijaji 40.8 and 30.1, Gambella 43.0 and 30.6, Gore 37.8 and 31.2, Maji 46.4, 40.6 and 38.0, Bure 41.7 and 39.4, Alege 47.0, Bedele 47.4, Chira 46.0, Dolomena 34.0, Gimbi 38.3, Hosana 32.2 and Chewaka 43.5 mm of heavy fall was observed.

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rain benefiting areas for the overall Bega season agricultural activities, like for land preparation, collecting and storing of water, planting crops and seedling etc. Moreover, the received normal to above normal amount of moisture in the pastoral and agro pastoral areas might play significant role in improving pasture and drinking water.

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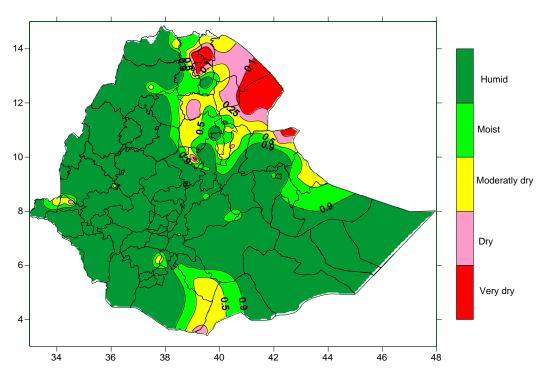


Fig.3 Moisture Status for (1-10 August, 2017)

As moisture status map above during the second dekad of September 2017 indicated that (see Fig 3). Except parts of Afar, northern tip of Somali, pocket area of south Omo 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 normal conditions, during the second dekad of September moisture is gradually withdrawn from the northern and northeastern part of the country. Early planting long and short cycle crops mostly reaches at grain filling and maturity stages and even in some Meher crop growing places harvest and post harvest activities may conduct. On the other hand, it is the time for second rain benefiting areas to start agricultural activities, such as land preparation, sowing and seedling.

Given the ten day forecast for the second dekad of September 2017, the moisture condition is likely to prevail mostly over the western half and to the southern and southeastern part of the country. And in line with this normal to above normal rainfall is very likely over Tigray, Benishangul Gumuz, Gambella, West and East Gojam, north Shewa, Baherdar zuria, Agew Awi, North and South Gonder, east and west Wollega, Jimma, Illubabora, east, west and north Shewa, Arsi, Bale, Addis Ababa, Hadiya, Gurage, Wolayita, Keffa, Bench Maji, Sidama and Gedeo Zones. These conditions are favorable to satisfy crops water need particularly those which are found at early and vegetative stages as well as for perennial plants. Moreover, it has a significant implication for the supply of drinking water and pasture over pastoral and agro pastoral areas. Conversely, flood is likely to happen particularly at downhill crop fields, thus farmers are advised in advance to be ready to divert runoff away from crop fields. In addition it should be noted that the coming situation may be unfavorable for crops at maturity stage and for those under harvest and post harvest activities. So farmers are advised to give priority to harvest matured cops as soon as possible. In addition, in relation to convective cloud formation there may be a possibility of heavy fall with hail and it may cause some damage on different crops, vegetables, fruits and other perennial plants. Thus, in order to minimize the level of the possible damage, farmers are advised to remove hailstones from croplands as much as possible. Also it is recommended that farmers need to clear the crop fields from severely damaged and unrecovered plant parts and debris of them.