

## SUMMARY

During the first dekad of April 2018, rain bearing meteorological phenomena was strengthening in amount and distribution over most Belg rain benefiting areas of the country. In line with this eastern and southern Tigray, north and south Wello, most of Shewa zones, Afar region of zone 3, 4 and 5, Somali region of Sity, Fafen, degehabur, Leben, Afder, and Korahе zone, Elubabor, Jimma, eastern Wellega, Horugudru, eastern and weastern Harerge, Arsi and Bale, Guji and Borena, Gurage Silti, Hadya, sidama, Wollita, Gamogofa, Segen people, South omo, Gedeo, Bench maji, and Keffa zone of SNNPR experienced slight to heavy rainfall. This situation might have positive impact on moisture requirement of different Belg and long cycle Meher crops found at various phases of growth, perennial plants, general agricultural activities, improve pasture and drinking water availability particularly south and southeastern pastoral and agro pastoral parts of the country. On the other hand, extreme heavy fall (50.0 – 102.9) mm in one rainy day recorded over north eastern, eastern and southern parts of the country. Due to the pronounced widespread and intensified rainfall over some places of the aforementioned areas might result in crop damage, which were attaining at different phenological stages. Besides, it improved the supply of drinking water and pasture over pastoral and agro pastoral areas.

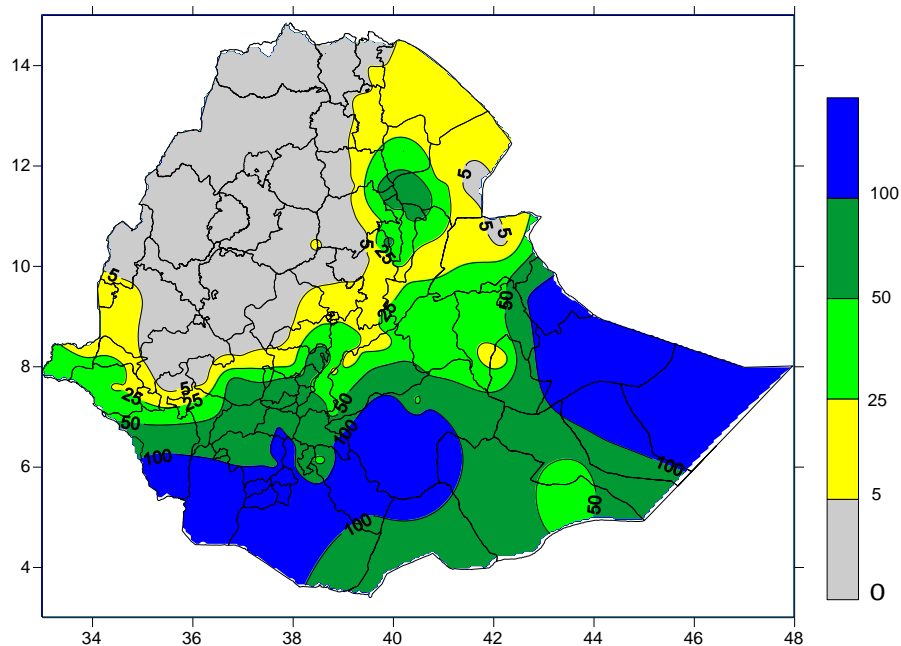
During the 2<sup>nd</sup> deked of April 2018 Belg season rain bearing meteorological condition were strengthen over most of Belg rain benefiting areas. In relation to this, all zones of SNNPR, Arsi and Bale, Guji and Borena, East and West Hararge, almost all zones of Somali region, all shewa zones, some place of north and south Welo zones, zone one, three, four and five of Afar region, some areas of south and eastern Tigray, Gambela, west Welega and Jimma zones obtained from small to heavy rainfall. The situation has positive impact for ongoing Belg agricultural activities in fulfilling water satisfaction and also helps land preparation activities for Maher agriculture, availabilities of drinking water and pasture in pastoral and agro-pastoral

On other hand over southern and southeastern parts of the country the Belg rain bearing situation is more enhanced and in relation with this some areas experienced heavy fall within 24hrs and at some station like Delo Mena, Bati, Degehabur, Aman, Konso, Burji, Merab Abaya, Jinka, Negele Borena, Jijiga, Welayta Sodo, Dire Dawa, Bale Robe, Jimma, kebrider heavy fall were observed with 24hrs. This situation water logging, flash flood and hence has negative effect on early sowed Belg agriculture, health condition of livestock's and soil protection activities.

## 1. WEATHER ASSESSMENT

11-20 April, 2018

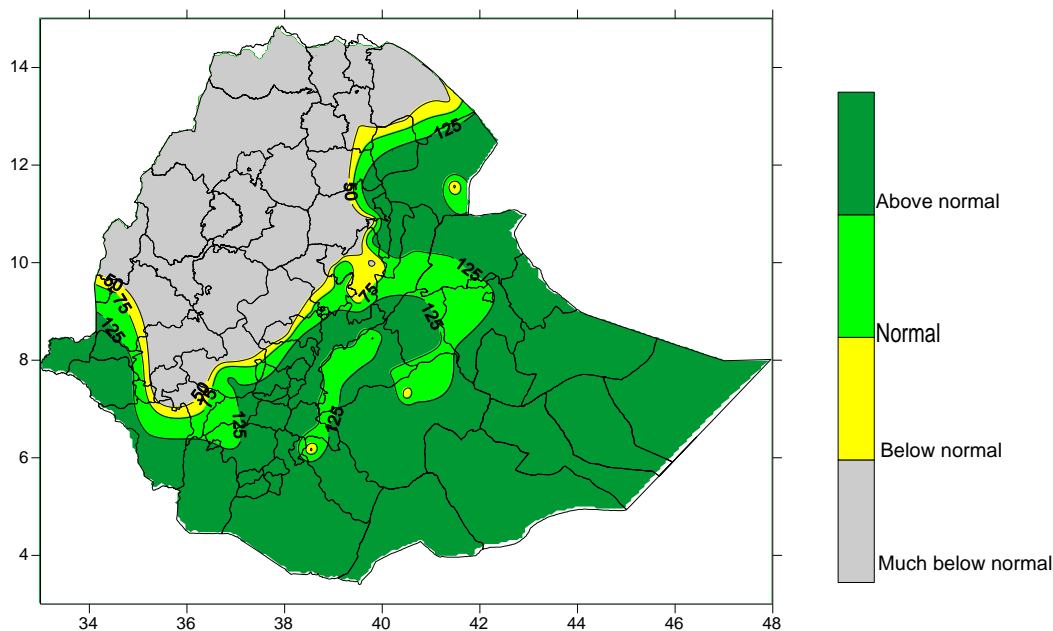
### 1.1 RAINFALL AMOUNT (Fig.1)



**Fig. 1. Rainfall distribution in mm (11-20 April, 2018)**

During second dekad of April 2018 most areas of Degehabur, Warder, Bale, Guji, Derashe, South Omo, Konso, Amaro, Borena, Jijiga and Korahe zones experienced more than 100mm rainfall. Some parts of Borena, Liben and Bale zones of Oromia region and Gode, Afder and Fik zones of Somali region and Hadiya, Dawuro, Wolayita, Sidama, Gamo Goff, Bench Maji and Gedeo zones of SNNPR region received 50 – 100mm Rainfall . Some areas of east & west Harergie, Harari, Jimma, Selti, Arsi, Keffa and Gambela zone 2 received 25 – 50mm rainfall during the dekad. The rest parts of the country experienced less than 25mm of rainfall.

## 1.2 RAINFALL ANOMALY (Fig.2)



**Fig2. Percent of normal rainfall distribution (11-20 April, 2018)**

### **Explanatory notes for the legend:**

**< 50 -- Much below normal**

**50—75% -- below normal**

**75—125% --- Normal**

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

Most parts of the country except Benshangul-Gumuze, western Oromia, Much of Amhara and Tigray and Afar Zone2 exhibited normal to above normal rainfall.

## 1.3. TEMPERATURE ANOMALY

Some stations recorded extreme maximum temperature greater than 35°C 5 to 10 days. Among reporting stations: Gode, Methara, Abobo, Assayta, Awash Arba, Aysha, Dubti, Elidar, Gambela, Gewane, Lare, Mankush, Metema, Mille, Mytsebri, Quara, Semera, Shiraro, Tistiska, Pawe, Soge and Fugnido recorded 37.2, 37.0, 41.2, 40.0, 41.5, 40.5, 40.2, 38.6, 40.5, 40.2, 41.6, 39.2, 36.5, 42.4,

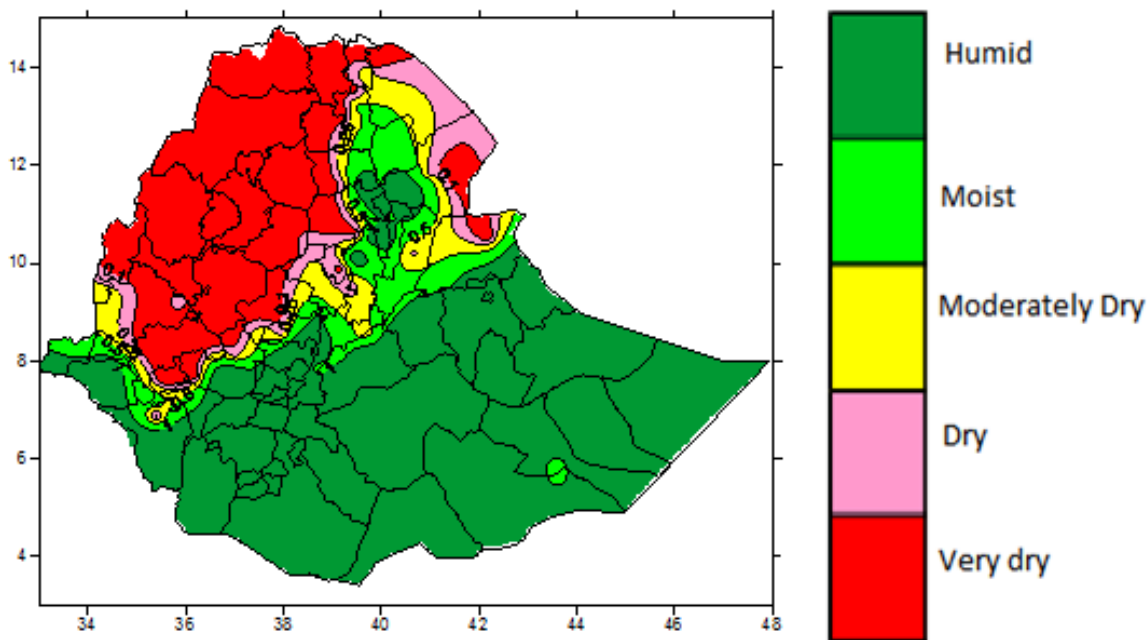
40.6, 39.8, 36.2, 39.2, 37.4, and 39.0°C, respectively. The situation might have caused a negative impact on the normal growth and development of plants and livestock.

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

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

During the 2<sup>nd</sup> deked of April 2018 Belg season rain bearing meteorological condition were strengthen over most of Belg rain benefiting areas. In relation to this, all zones of SNNPR, Arsi and Bale, Guji and Borena, East and West Hararge, almost all zones of Somali region, all shewa zones, some place of north and south Welo zones, zone one, three, four and five of Afar region, some areas of south and eastern Tigray, Gambela, west Welega and Jimma zones obtained from small to heavy rainfall. The situation has positive impact for ongoing Belg agricultural activities in fulfilling water satisfaction and also helps land preparation activities for Maher agriculture, availabilities of drinking water and pasture in pastoral and agro-pastoral

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**Fig.3 Moisture Status for (11-20 April, 2018)**

As moisture status map above (the relationship between total dekadal rainfall and the dekadal total reference evapotranspiration) during the second dekad of April 2018 indicated that (see Fig 3). Much Belg rainfall benefiting areas of the country exhibited moist to humid moisture condition. Moreover Southern half, southwestern and southeastern parts of the country experienced moderately dry to very dry moisture condition. This condition favors the ongoing Belg agricultural activities.

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

In normal condition, during the last dekad of April the rain bearing weather systems are continued with relative strengthens over most of Belg rain benefiting areas. The dekad is mainly characterized as the time of most early planted Belg season crops attains their early-vegetative stages as well as the time of land preparation and sowing of long cycle crops.

According to the weather forecast given for the next ten days, fairly widespread rainfall is expected over most of Belg rain benefiting areas across the country. In line with this, zones of

east and west Wellega, Jimma, Illubabora, west and north Shoa, Addis Ababa, west and east Hararge, Arsi, Bale, Borena and Guji from Oromia region; all zones of Gambella region; zones of north and south Wello, Waghimra, north Shoa, west and east Gojam, Bahirdar zuria, and some of north and south Gonder from Amhara region; zones of Assosa and Kamashi from Benishangul Gumuze region; zone 3 & 5 from Afar region; zones of east and southern Tigray; zones of Hadiya, Gurage, Keffa, Benchimaji, Wolaiyta, Sidama, south Omo and people of Segen from SNNPR; most of northern and southern zones of Somali region and places around Harari and Dir Dawa are expected to receive mostly near normal rainfall. However, some areas may also experience above normal rainfall. In addition, the forecast also indicated that some places, particularly the southern, southeastern and eastern parts of the country could experience heavy falls.

Thus, the expected various amount of rainfall in different places may be favorable to satisfy the water need of various early planted Belg season crops, perennial plants, and for various horticulture crops. In addition, the condition can be suitable to plant long cycle crops, such as maize and Sorghum over long cycle crop growing areas. The expected moisture may also improve the availability of pasture, drinking water, and re-charging of natural and artificial holes and ponds over the pastoral and agro pastoral community. On the other hand, heavy fall is also likely to occur in some of the southern, southeastern and eastern parts of the country and which may cause the occurrence of flood over the down section terrains. Therefore, farmers, who are living at the lower sector, are advised in advance to take the necessary action to reduce the likely impact of the flood. On the other hand, some places from SNNPR and Oromiya region may face water-logging problem due to receiving continues rainfall from the beginning of April. Therefore, the communities are advised to set the proper drainage systems so as to drain excess water from crop fields. Parallel to this, farmers on moisture stress areas are advised to take the advantage over the runoff by diverting it to the crop fields as well as to the available natural or other form of reservoirs so as to utilize it at the time of critical water shortage.