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Agrometeorological Bulletin

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FORE WARD

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

እ.ኤ.አ በልግ 2020

በመደበኛ ሁኔታ መካከለኛው፤ የሰሜን ከፍተኛ ቦታዎች፤ የምስራቅ ከፍተኛ ቦታዎች፤ ከፊል የመካከለኛው፤ የደቡብ ምዕራብና የደቡብ የሀገሪቱ አካባቢዎች በልግ አብቃይ በመባል ይታወቃሉ። በሰሜን፤ በሰሜን ምሥራቅና በምስራቅ ከአመታዊው ምርት የበልግ ምርት አስተዋፅያ ከ 5-30%፤ በደቡብና ደቡብ ምእራብ ከ 30-60% ይደርሳል። ሰሜን ሽዋ፤ ምስራቅና ምእራብ ሐረርጌ፤ አርሲ፤ ባሌ፤ ሰሜንና ደቡብ ወሎ፤ ቦረናና የደቡብ ብሔር ብሔረሰቦችና ህዝቦች ክልል (ከምባታ፤ ሀድያ፤ ወላይታ፤ ጉለኔ፤ ከፋና ቤንች) የማሣ ዝግጅትና የዘር ጊዜ የሚጀምሩት ከታህሳስ እስከ የካቲት ባለው ጊዜ ውስጥ ነው። በተጨማሪም ወቅቱ የደቡብና ደቡብ ምስራቅ አከባቢዎች ለግጦሽ ሣርና ውሃ አቅርቦት የሚሆን ውሃ የሚያከማቹበት ጊዜ ነው።

እ.ኤ.አ 2020 በፌብሪዋሪ ወር የነበረው የእርጥበት ሁኔታ ሲገመገም በመጀመሪያዎቹ እና በሁለተኛዎቹ አስር ቀናት በተለይም የበልግ ሰብል አብቃይ በሆኑት አካባቢዎች የተሻለ የእርጥበት ገጽታ እንደነበራቸው የተነተኑ የግብርና ሚቲዎሮሎጂ መረጃዎች ያመለክታሉ። ከዚህም ጋር ተያይዞ በተወሰኑ በሰሜን፤ በሰሜን ምስራቅ፤ በምስራቅ፤ በመካከለኛው፤ በምዕራብና በደቡብ ምዕራብ የሀገሪቱ ክፍሎች በሚገኙ አንዳንድ ዞኖች ላይ ከቀላል እስከ መካከለኛ መጠን ያለዉ እርጥበት እንደነበራቸው መረጃዎች አመልክተዋል። ሆኖም ግን በሶስተኛው አስር ቀናት ላይ ከደቡብ እና ደቡብ ምዕራብ አካባቢዎች በስተቀር ሁሉም የአገሪቱ አካባቢዎች ላይ ደረቃማ እና ሞቃታማ የአየር ሁኔታ የተስተዋለ ቢሆንም፤ በወሩ የተገኘው እርጥበት የበልግ ሰብል በስፋት አምራች ለሆኑት ለደቡብ ምእራብ አካባቢዎችም ሆነ ለሰሜን ምስራቅ እና ለመካከለኛው የሀገሪቱ አካባቢዎች የማሳ ዝግጅት ለማድረግ ከፍተኛ አዎንታዊ ሚና ነበረው።፡ በተጨማሪም ለቋሚ ተክሎች የውሃ ፍላጎት መሟላት ከነበረው አስተዋፅዎ ጎን ለጎን ለመጠጥ ውሃና ለግጦሽ ሳር አቅርቦት የጎላ ሚና ነበረው። በሌላ በኩል በተለይም በቆላማ አካባቢዎች ላይ የተስተዋለው ከፍተኛ ሙቀት አፈር ውስጥ የሚገኘውን እርጥበት እንዲቀንስ ከማድረግም ሆነ ከአንስሳት ጤንነትና አመጋገብ አንፃር የተወሰነ አሉታዊ ጎን ነበረው ።

እ.ኤ.አ 2020 ባሳለፍነው በማርች ወር የነበረው የእርጥበት ሁኔታ ሲገመገም የተተነተኑ የግብርና ሚቲዎሮሎጂ መረጃዎች እንደሚያመላክቱት በአብዛኛዎቹ የበልግ አብቃይ በሆኑ አካባበቢዎች የተስፋፋ የእርጥበት ሁኔታ ነበራቸው፡፡ ይህም ሁኔታ በወቅቱ እየተከናወኑ ለነበሩት የግብርና ስራ እንቅስቃሴዎች ማለትም ማሳ ለማዘጋጀት፣ ዘር ለመዝራትም ሆነ የመጠጥ ውኃና የግጦሽ ሳር አቅርቦት ላይ የጎላ ጠቀሜታ ነበረዉ፡፡ በአጠቃላይ በወሩ የተገኘው እርጥበት አስቀድመው ለተዘሩ የበልግ ሰብሎችም ሆነ ለቋሚ ተክሎች የውኃ ፍላጎት መሟላት አዎንታዊ ሚና የነበረው ሲሆን፤ በተጨማሪም የረጅም ጊዜ ሰብሎችን ለሚዘሩ አካባቢዎች አስቀድመው የማሳ ዝግጅት እንዲያከናውኑና የተሟላ ዝግጅት ለማድርግ ጥሩ አስተዋጽኦ ነበረዉ፡፡ ከዚሁ ጋር ተያይዞ በተለይም በደቡብ የሀገሪቱ አካባቢዎች የተገኘው እርጥበት በአካባቢዎቹ ለሚኖሩት የአርብቶ አደርና ከፊል አርብቶ አደር አካባቢዎች ለመጠጥ ዉሃና ለግጦሽ ሣር አቅርቦት አዎንታዊ ሚና ነበረው፡፡

እ.ኤ.አ 2020 ባለፈው የአፕሪል ወር ለወቅቱ ዝናብ መኖር አመቺ ሁኔታን የሚፈጥሩ የአየር ሁኔታ ክስተቶች በበልግ አብቃይ እና ተጠቃሚ በሆኑ የሀገሪቱ አካባቢዎች ላይ ተጠናክረው ተስተውለዋል፡፡ ይህም በአብዛኛው የበልግ አብቃይ እና ተጠቃሚ የሀገሪቱን ክፍሎችን ያዳረሰ የእርጥበት ሁኔታ ነበረዉ፡፡ ይህም ሁኔታ ቀደም ብለው ተዘርተው በተለያየ የእድገት ደረጃ ላይ ለሚገኙ የበልግ ሰብሎች ቀጣይ እድገታቸው ላይ የጎላ ጠቀሜታ የነበረው ሲሆን፤ እንዲሁም ለረጅም ጊዜ ሰብሎች የማሳ ዝግጅትና ለዘር እርሻ እንቅስቃሴ፣ ለቋሚ ሰብሎች የውሀ ፍላጎት መሟላት በተጨማሪም ለአርብቶ አደሮችና ከፊል አርብቶ አደሮች አመቺ ሁኔታን የፈጠረ ነበር፡ ፡ በተለይም በደቡብና በምስራቅ የሀገሪቱ አካባቢዎች ላይ በአንዳንድ ስፍራዎች የነበረው ከባድ መጠን ያለው ዝናብ ለአዝዕርቱ የውሃ ፍላጎት መሟላት፣ ለግጦሽ ሳርና ለመጠጥ ውሀ አቅርቦት አመቺ ሁኔታን ቢፈጥርም፤ በአንዳንድ ከላይ በተጠቀሱ አካባቢዎች የነበረው ከባድ ዝናብና ቅጽበታዊ ጎርፍ በተለያየ የእድገት ደረጃዎች ላይ ባለ ሰብሎች እንዲሁም በሰው እና በንብረት ላይ አሉታዊ ተፅዕኖ ነበረው፡፡

እ.ኤ.አ 2020 ባለፈው የሜይ ወር ለወቅቱ ዝናብ መኖር አመቺ ሁኔታን የሚፈጥሩ የአየር ሁኔታ ክስተቶች በአብዛኛዉ የሀገሪቱ አካባቢዎች ላይ እየተስፋፋ የነበረ ሲሆን፤ ከዚህ ጋር በተያያዘ በአብዛኛዉ የአገሪቱ ክፍሎች ላይ የእርጥበት ስርጭቱ ጥሩ ሁኔታ ነበረዉ፡፡ ይህም ሁኔታ የበልግ አብቃይ እና ተጠቃሚ የሀገሪቱ ክፍሎች ተዘርተው ፍሬ በማፍራት እና በተለያየ የእድገት ደረጃ ላይ ለሚገኙ የበልግ ሰብሎች ቀጣይ እድገታቸው ላይ የጎላ ጠቀሜታ የነበረው ሲሆን፤ እንዲሁም ለረጅም ጊዜ ሰብሎች የማሳ ዝግጅትና ለዘር እርሻ እንቅስቃሴ፣ ለቋሚ ሰብሎች የውሀ ፍላጎት መሟላት

በተጨማሪም ለአርብቶ አደሮችና ከፊል አርብቶ አደር አካባቢዎች ለግጦሽ ሳር እና ለመጠጥ ዉሃ አቅርቦት አመቺ ሁኔታን የፈጠረ ነበር፡፡ በአንዳንድ ቦታዎች ላይ አልፎ አልፎ የነበረው ከባድ መጠን ያለው ዝናብ ለአብዛኛው የእርሻ እንቅስቃሴ ጠቀሜታው የጎላ የነበረ ቢሆንም ባስከተለዉ የጎርፍ መከሰትና የመሬት መንሸራተት በደቡብ ምእራብና በምስራቅ አንዳንድ አካባቢዎች ላይ በንብርትና በህይዎት አንድሁም በግብርናዉ እንቅስቃሴ ላይ አሉታዊ ጎን ነበረዉ፡፡

በአጠቃላይ የበልግ 2020 ሁኔታ ስንመለከተው በአብዛኛው የበልግ ተጠቃሚ አካባቢዎች ላይ ጥሩ የእርጥበት ሁኔታ የነበረበት እና ለበልግ ሰብሎች የግብርና እንቅስቃሴ ጥሩ አስተዋፅኦ ነበረው፡፡ ከዚህም በተጨማሪ በኤፕሪል እና ሜይ ላይ የተገኘው እርጥበት ለአርብቶ አደሩ እና ከፊል አርብቶ አደሩ አካባቢዎች በጎ ጎን የነበረው ሲሆን ለረዥም ጊዜ የመኸር ሰብሎች የዘር ጊዜያቸውን ለማከናወን ጥሩ ጎን ነበረው፡፡ በሌላ በኩል በሰሜንና ሰሜን ምስራቅ በልግ ተጠቃሚ አካባቢዎች ላይ ፈጠርዋሪና በማርች ወር በነበረው የእርጥበት መቀነስ የበልጉ የግብርና እንቅስቃሴ ላይ በተወሰነ መልኩ አሉታዊ ጎን የነበረው ሲሆን፤ ጠቅለል ባለ መልኩ የእርጥበት እጥረት ከተስተዋለባቸው በልግ ተጠቃሚ አካባቢዎች በስተቀር አብዛኛው የበልግ ተጠቃሚ አካባቢዎች ጥሩ የግብርና እንቅስቃሴ ነበራቸው፡፡

SUMMARY

Belg 2020

During Belg 2020 based on NMA's seasonal classification, Belg is consisting of four months starting from February and ending with the month of May. Normally central parts of northern highlands, eastern highlands, parts of central, south-western and southern Ethiopia are known as Belg growing areas .The contribution of Belg rainfall is ranging from 5-30% over north, north-eastern, and eastern highlands, where as 30-60% over south and south-western parts of the country from annual total crop production of the areas. North Shewa, East and West Hararge, Arsi, Bale, north and south Wello, Borena and SNNPR (Kembata, Hadiya and Welayita, Gurage, Keffa and Bench) start their land preparation and sowing activities during December to February. It is the time for water harvesting over pastoral and agro pastoral areas of southern and south-eastern Ethiopia.

During the month of February 2020, light to moderate amount of moisture, particularly in the first and second dekad of the month was observed over most Belg rain benefiting areas including SNNPR, central, western and eastern Oromia, east Amhara as well as at the periphery of Afar and south Tigray zones. In this regard, the condition was very promising and enabling to conduct land preparation and to satisfy the daily water need of perennial plants as well as to ensure the availability of pasture and drinking water over pastoral and agro pastoral communities. However, during the last dekad of the month very dry moisture condition prevailed over most parts of the country with some exception in the south and south west parts of the country. This condition surely had negative implication for both Belg season farming and livestock production. On the other hand, the observed high temperature over the low land areas could cause loss of soil moisture due to high rate of daily evaporation and it might also have negative implication to the overall healthiness of livestock's.

During the month of march 2020, According to the analyzed AgroMeteorological information, light to moderate amount of moisture experienced, particularly in the beginning second and third dekad of the month over most Belg cropping areas including SNNPR, southern, central, western and eastern Oromia, eastern Amhara ,parts of Afar, south Tigray as well as Gambella and Somali . In this regard, the condition was very promising and enabling to conduct land preparation and to satisfy the water need of Belg crop found at different stage of growth, perennial plants as well as to ensure the availability of pasture and drinking water

particularly over southern parts of pastoral and agro pastoral communities. Moreover, the obtained moisture might have positive impact on earlier performing of land preparation and sowing of long cycle crops, it could also gave good opportunity to collect rainwater harvesting and storing.

During the month of April 2020 rain bearing meteorological phenomena was strengthening in amount and distribution over much of Belg rain benefiting area of the country. This situation might have positive impact on moisture requirement of different Belg and Meher long cycle crops found at various phases of growth, perennial plants, general agricultural activities, improve pasture and drinking water availability in pastoral and agro pastoral low land areas. Besides, the observed heavy rainfall particularly southern and south west and eastern parts of the country might have positive impact on the ongoing Belg agricultural activities normally moisture deficit areas and water harvesting where that can be used in time of deficit. Moreover the observed widespread rainfall distribution could also have indispensable contribution on the availability of pasture and drinking water for pastoral areas. On the other hand, extreme heavy fall (32.0 – 84.0) mm in one rainy day observed over south, south west, central and eastern parts of the country may cause flood and water logging on crops field in low lying areas and soil erosion on sloppy areas as well as it could affect on agricultural activities, Property and life in causing the occurrence of flooding, land slide and water logging.

During the month of May 2020, under normal circumstance the rainfall activity exhibited a decreasing in belg growing areas of the country. However, over the month exhibited better rainfall amount and distribution over the Country. This situation would have significant contribution for belg crops which were at different phenological stage, Perennial crops and meher long cycle crops. Moreover, during the month western parts of the country received wide distribution of rainfall. The observed wide distribution of rainfall could have a positive contribution for belg crops, sowing of long cycle crops like maize and sorghum including pulse crops like haricot bean and also fevered for pasture and drinking water over the low lands of pastoral and agro postural area of the country. The analysis of moisture status indicated that there was significant increase in moisture condition over most parts of the country during the month of May. On the other hand, occasional heavy fall ranging from 50 – 150 mm in one rainy day observed over western, south-western, Parts of the country may cause flood and water logging on crops field in low lying areas.

Generally on this belg 2020 season was almost good moisture condition from February to May 2020 and this good moisture condition was favourable for land preparation, sowing crop and ongoing agricultural activities, planting of long cycle crops.

The moisture statues of Belg 2020 describes figure below:

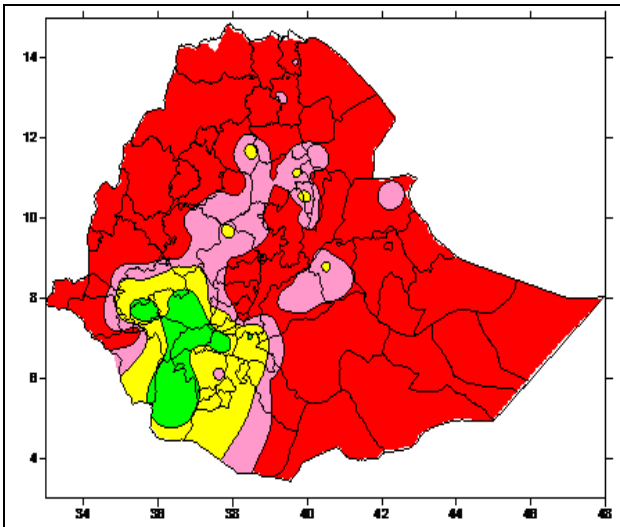


Figure 1. Moisture status for the month of February 2020

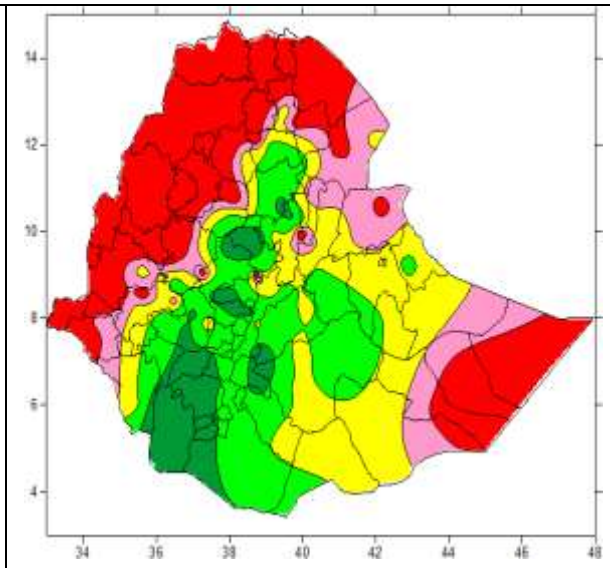


Figure 2. Moisture status for the month of March 2020

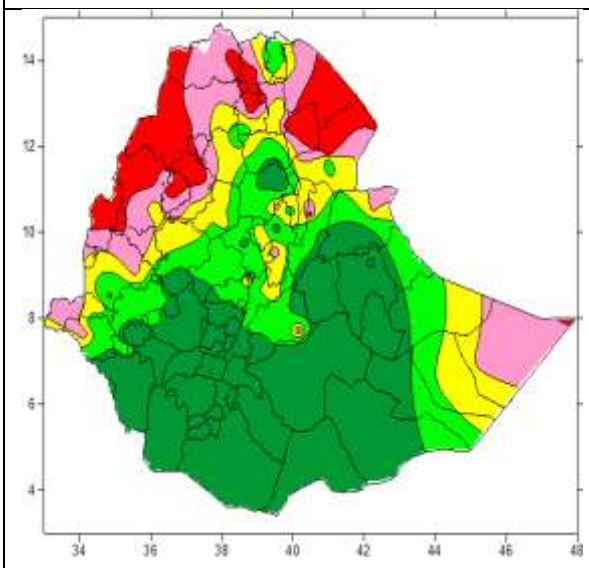


Figure 3. Moisture status for the month of April 2020

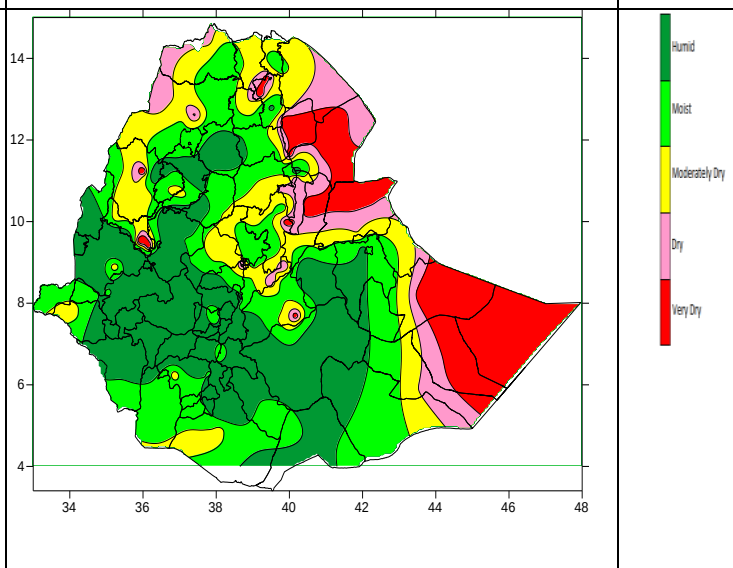
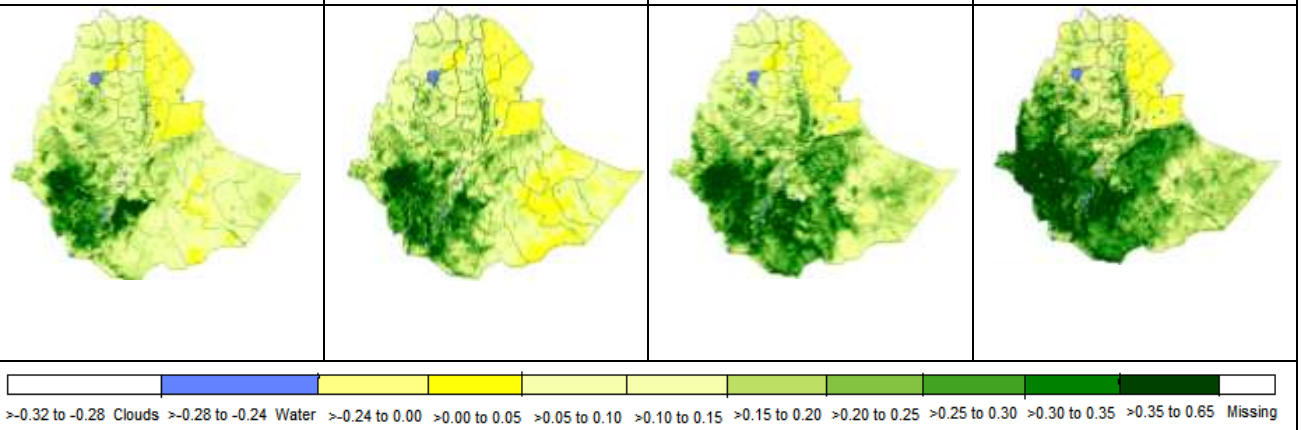


Figure 4. Moisture status for the month of May 2020

Vegetation Greenness (NDVI) in fraction **Belg 2020**

February 2020	March 2020	April 2020	May 2020



Vegetation Greenness (NDVI) in fraction -[Compared to Normal]

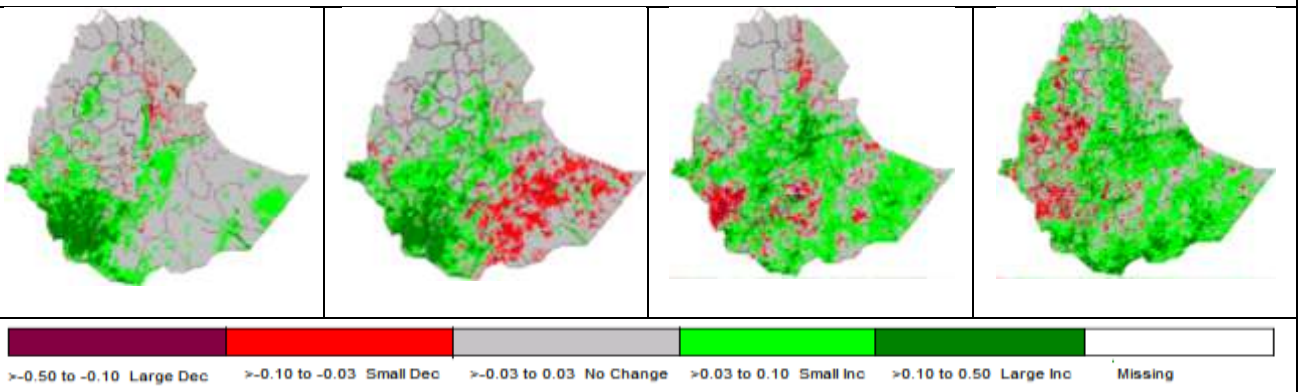


Fig. 5. Vegetation Greenness (NDVI) in fraction and Compared to Normal Bega (October- January) 2019/20

Rangeland WRSI in % **- Belg 2020**

February 2020	March 2020	April 2020	May 2020

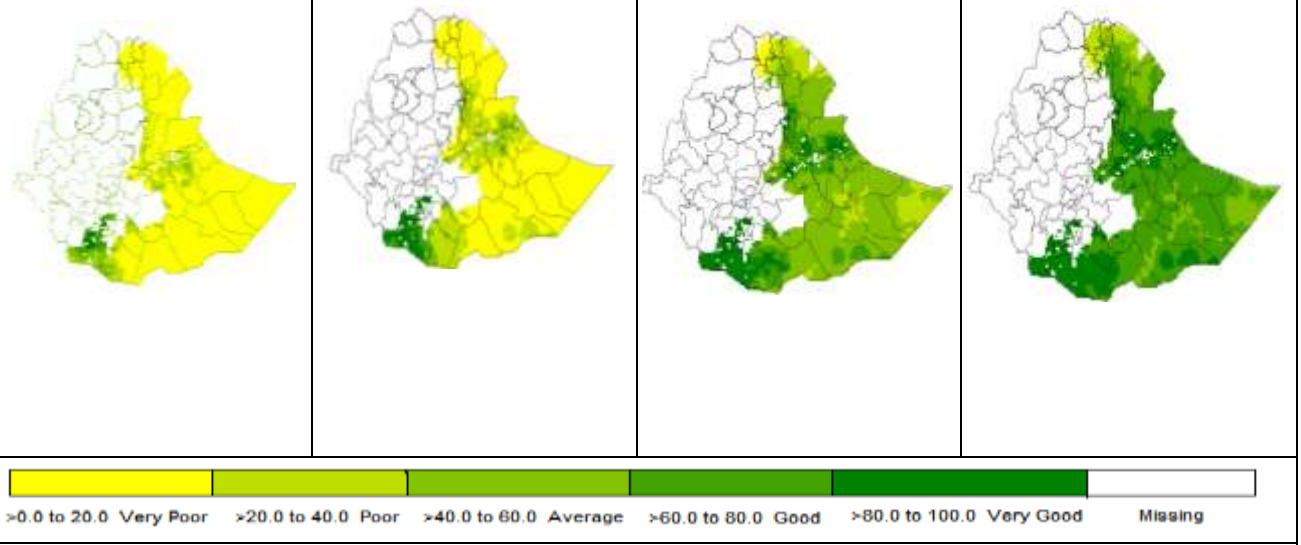


Fig.6. Rangeland WRSI in % Belg (February- May) 2020

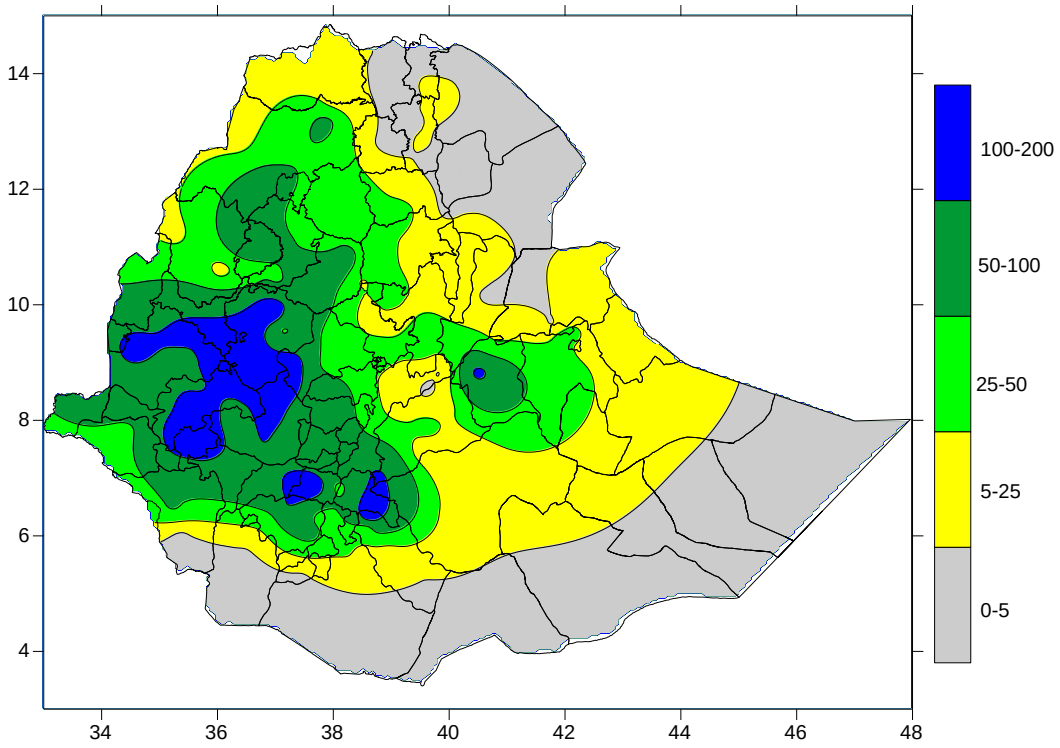


Fig 7. Rainfall distribution in mm (21 – 31) May 2020

1. WEATHER ASSESSMENT

1.1. Rainfall amount (21 – 31) May 2020

During the third dekad of May 2020, Illubabur, Jimma, Sheka, west & east Wellega and Welayita received 100-200mm of rainfall. Agew, Bahirdar, west & east Gojam, east Wellega, north & west Shewa, south west Shewa, Gurage, Silte, Alaba, Hadiya, Sidama, Gamogofa, Yem, Dawuro, Keffa, Bench Maji, Godere, Gambela zone 1 & 3, Tongo, Kamashi, Asosa and Harergie received 50-100 mm of rainfall. North & south Gonder, north & south Wollo, Metekel, west Shewa, Harer, east Harergie, Gambela zone 2 and Basketo received 25-50 mm of rainfall. West Tigray, Mekele, Waghimra, north & south Wollo, Oromia special zone, Afar zone 3 & 5, east Shewa, Shinile, Jijiga, Deghabur, Fik, Gode, Arsi, Bale, Guji, Burji and Derashe received 5-25 mm of rainfall. The rest parts of the country exhibited 0-5 amount of rainfall.

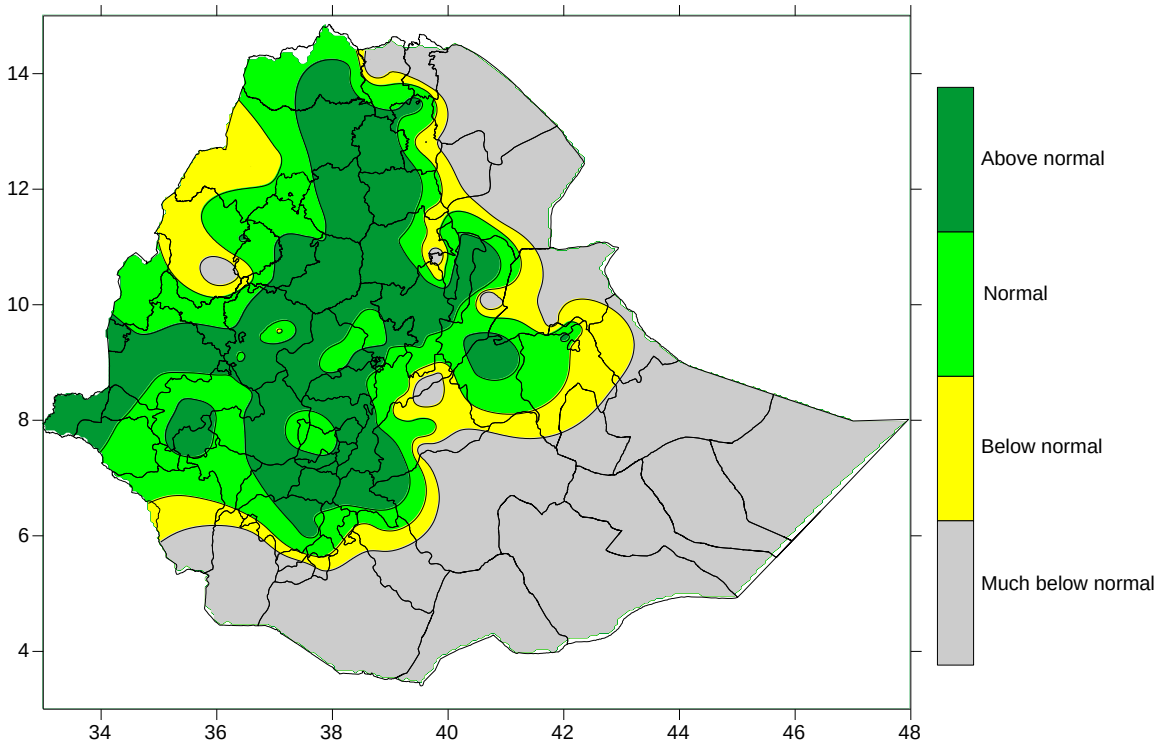


Fig. 8. Percent of normal rainfall distribution (21 – 31 May 2020)

Explanatory notes for the Legend

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

1.2. Rainfall Anomaly (21 – 31) May 2020

During the third dekad of May 2020, Over Illubabur, Jimma, Sheka, west & east Wellega, Welayita , Bahirdar, west & east Gojam, east Wellega, north & west Shewa, south west Shewa, Gurage, Silte, Alaba, Hadiya, Sidama, Gamogofa, Yem, Dawuro, Keffa, Bench Maji, Godere, Gambela zone 1 & 3, Tongo, Kamashi, Asosa, Harergie, north & south Gonder, north & south Wollo, west Shewa, Harer, east Harergie, Gambela zone 1, 2 & 3 and Basketo received normal to Above normal rainfall. The rest parts of the country Below normal to much belo normal rainfall.

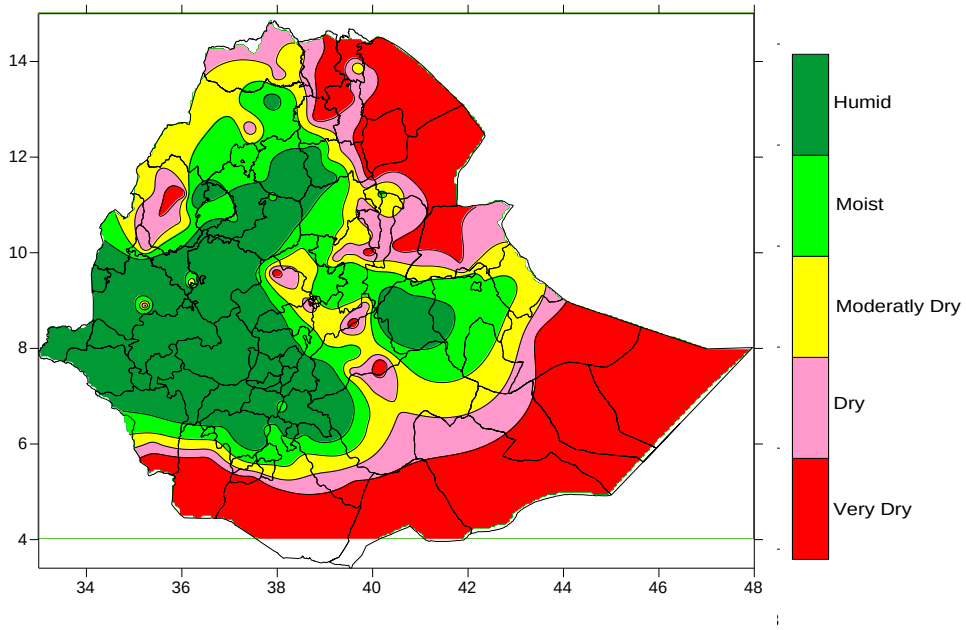


Fig.9. Moisture Status (21-31 May 2020)

1.3. Moisture status (21 – 31) May, 2020

Over Illubabur, Jimma, Sheka, west & east Wellega, Welayita , Bahirdar, west & east Gojam, east Wellega, north & west Shewa, south west Shewa, Gurage, Silte, Alaba, Hadiya, Sidama, Gamogofa, Yem, Dawuro, Keffa, Bench Maji, Godere, Gambela zone 1 & 3, Tongo, Kamashi, Asosa, Harergie, north & south Gonder, north & south Wollo, west Shewa, Harer, east Harergie, Gambela zone 1, 2 & 3 and Basketo exhibited Humid to Moist moisture conditions. The rest parts of the countries exhibited moderately dry to very dry moisture condition.

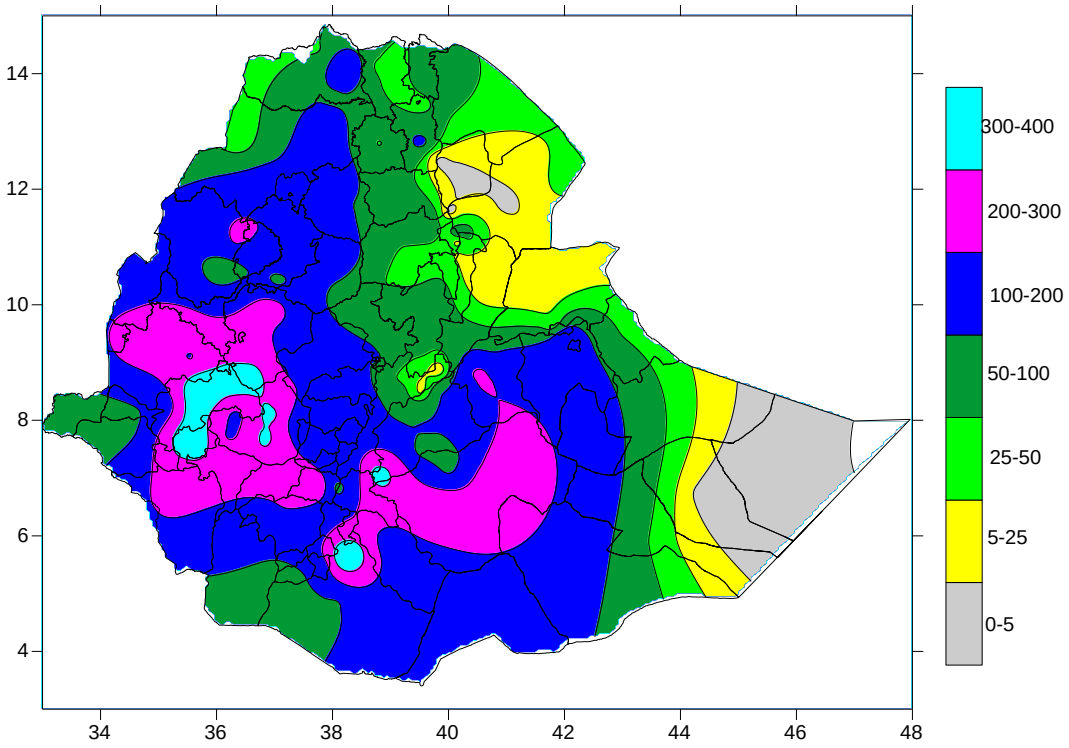


Fig. 10. Rainfall amount in mm for the month of May, 2020

1.4. Rainfall amount on the month of May 2020

During May 2020, Illubabur, Sheka and pocket areas of Jimma received 300-400mm of rainfall. Kamashi, east & west Wellega, Togo, Godere, Keffa, Bench Maji, Dawuro, Jimma, Welayita, Gedeo and Bale received 200-300mm of rainfall. North & south Gonder, Bahirdar, west & east Gojam, Agew, Metekel, Asosa, north & west Shewa, Addis Ababa, south west Shewa, Gurage, Yem, Selti, Alaba, Hadiya, Sidama, Basketo, Gamogofa, south Omo, Derashe, Burji, Gambela zone 2, Guji, Borena, Harergie, east & west Harergie, Harer, Fik, Afder and Liben received 100-200 mm of rainfall. East, west & south Tigray, north Gonder, Waghimra, north & south Wollo, east Shewa, Arsi, Jijiga, Deghabur, Gode, Konso, Amaro, Borena and Gambela zone 1, 2 & 3 received 50-100 mm of rainfall. Mekele, Central Tigray, Afar zone 2, 3 & 5, east Shewa and Jijiga received 25-50 mm of rainfall. Afar zone 1 & 4, Shinile and Korahe received 5-25 mm of rainfall. The rest parts of the country exhibited 0-5 amount of rainfall.

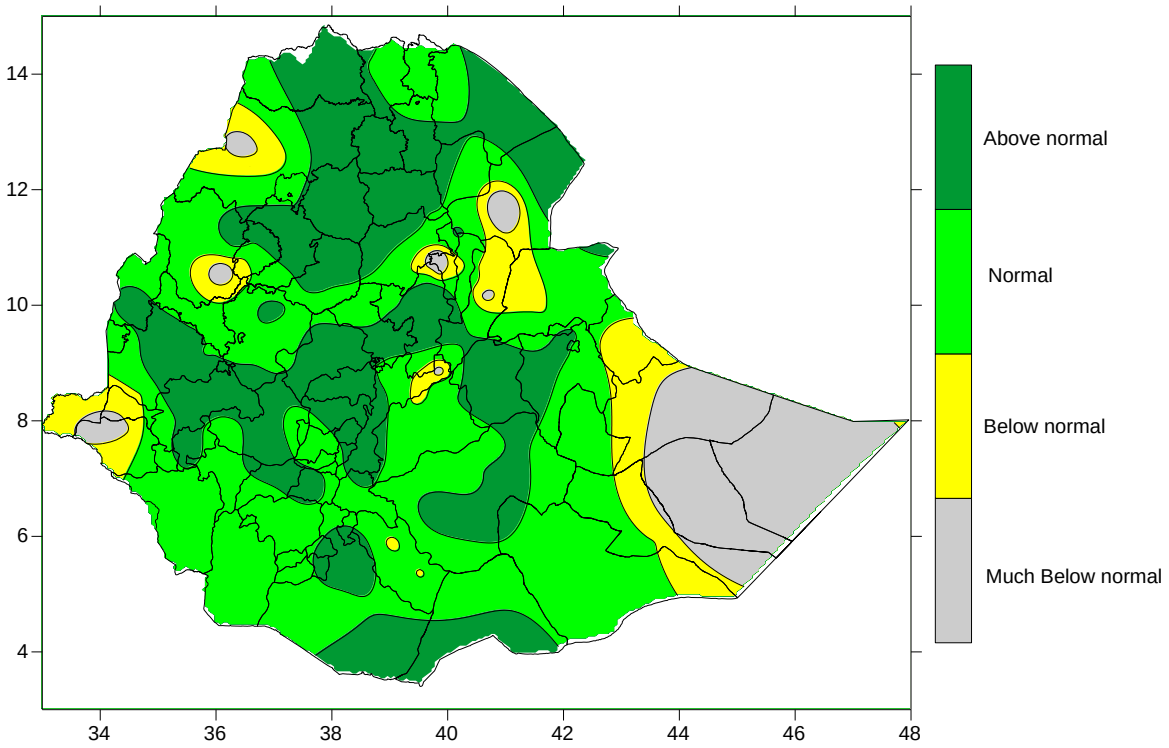


Fig. 11.Percent of Normal Rainfall for the month of May 2020

Explanatory notes for the Legend

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

1.5. Rainfall Anomaly on the month of May 2020

During May 2020, Over Illubabur, Sheka, pocket areas of Jimma, Kamashi, east & west Wellega, Togo, Godere, Keffa, Bench Maji, Dawuro, Jimma, Welayita, Gedeo, Bale, north & south Gonder, Bahirdar, west & east Gojam, Agew, Asosa, north & west Shewa, Addis Ababa, south west Shewa, Gurage, Yem, Selti, Alaba, Hadiya, Sidama, Basketo, Gamogofa, south Omo, Derashe, Burji, Guji, Borena, Harergie, east & west Harergie, east, west & south Tigray, north Gonder, Waghimra, north & south Wollo, east Shewa, Arsi, Gode, Konso, Amaro, Borena and Afar zone1, 2, 3 & 5 received normal to Above normal rainfall. The rest parts of the country received below normal to much belo normal rainfall.

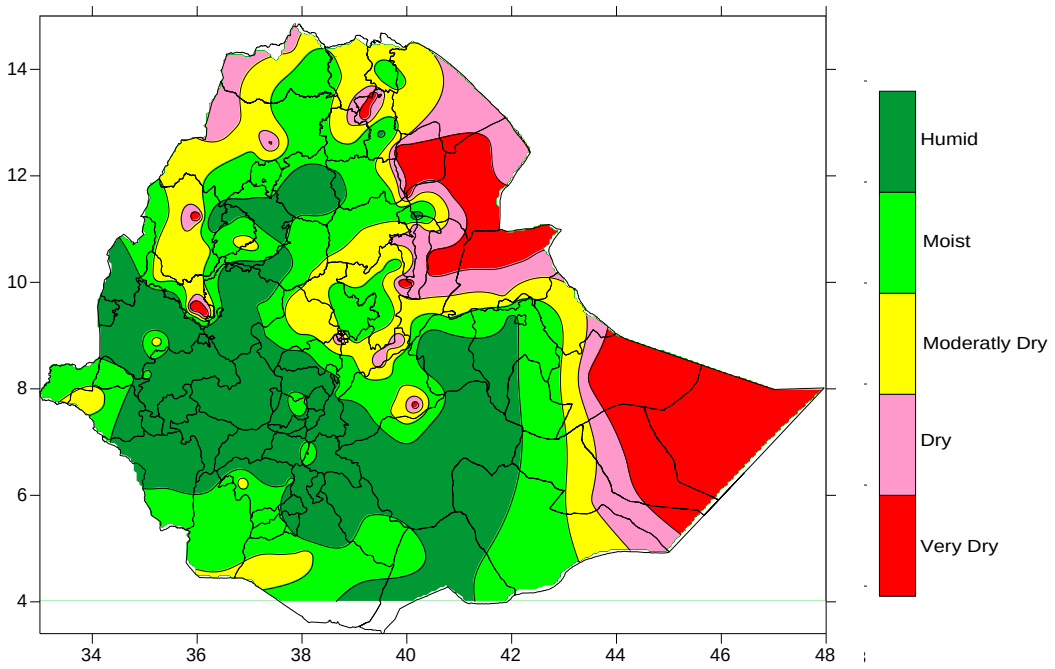


Fig. 12. Moisture status for the month of May 2020

1.6. Moisture status on the month of May 2020

Over Illubabur, Sheka, pocket areas of Jimma, Kamashi, east & west Wellega, Togo, Godere, Keffa, Bench Maji, Dawuro, Jimma, Welayita, Gedeo, Bale, north & south Gonder, Bahirdar, west & east Gojam, Agew, Asosa, north & west Shewa, Addis Ababa, south west Shewa, Gurage, Yem, Selti, Alaba, Hadiya, Sidama, Basketo, Gamogofa, south Omo, Derashe, Burji, Guji, Borena, Harergie, east & west Harergie, south Tigray, north Gonder, north & south Wollo, east Shewa, Arsi, Gode, Konso, Amaro and Borena exhibited Humid to Moist moisture conditions. The rest parts of the countries exhibited moderately dry to very dry moisture condition.

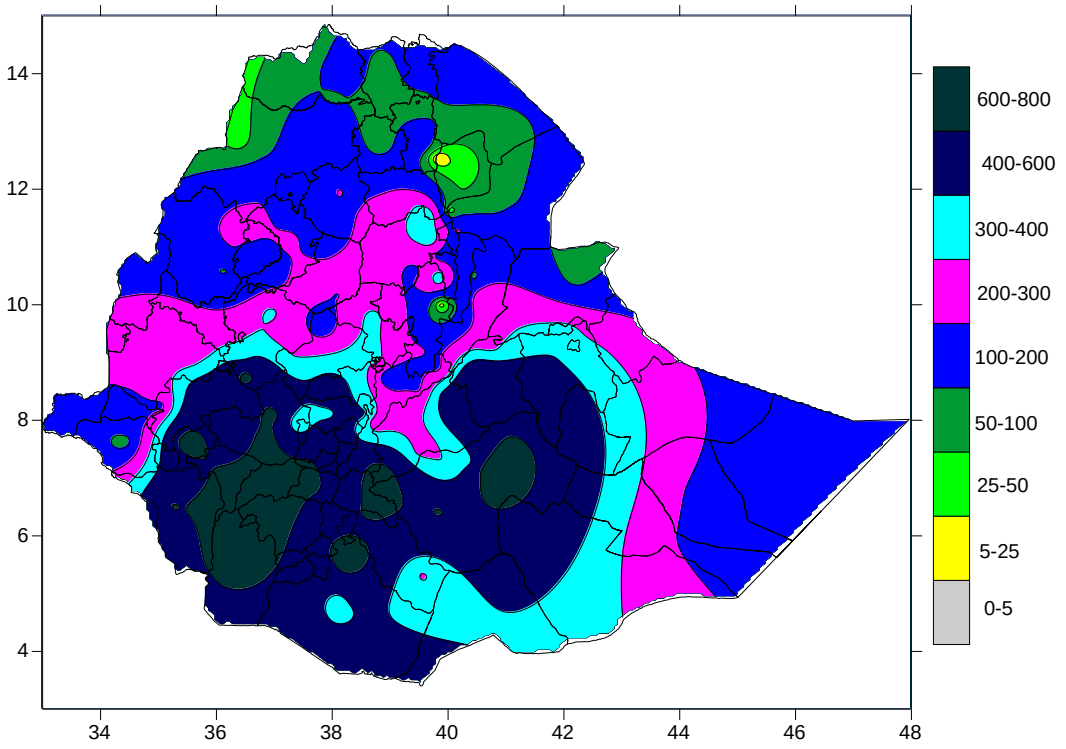


Fig.13. Rainfall amount in mm for Belg 2020

1.7. Rainfall Amount on Belg season 2020

During Belg 2020, Over Jimma, Kefa, Sheka, Basketo, Gamogofa, south Omo, Sidama and pocket areas of Bale received 600-800mm of rainfall. Illubabur, south west Shewa, Godere, Bench Maji, Jimma, Gurage, Alaba, Silte, Hadiya, Sidama, Gedeo, Konso, Burji, Amaro, Guji, Bale, west Harergie and Fik received 400-600mm of rainfall. Pocket areas of Oromia special zone, Addis Ababa, south west Shewa, Godere, Harer, Gode, Afder and Borena received 300-400 mm of rainfall. North & south Wollo, east Gojam, Kamashi, east & west Wellega, west Shewa, Tongo, Arsi, Afar zone 3, Jijiga and Deghabur received 200-300 mm of rainfall. East, central & south Tigray, north & south Gonder, Bahirdar, Metekel, Agew, Asosa, Afar zone 5, Shinile, Warder, Korahe, Gambela zone 1, 2 & 3 and north Shewa received 100-200 mm of rainfall. West & central Tigray, Mekele, Afar zone 2 and Waghimra received 50-100 mm of rainfall. Afar zone 4, Pocket areas of north Gonder and west Tigray received 25- 50mm of rainfall. The rest parts of the country exhibited 0-25 amount of rainfall.

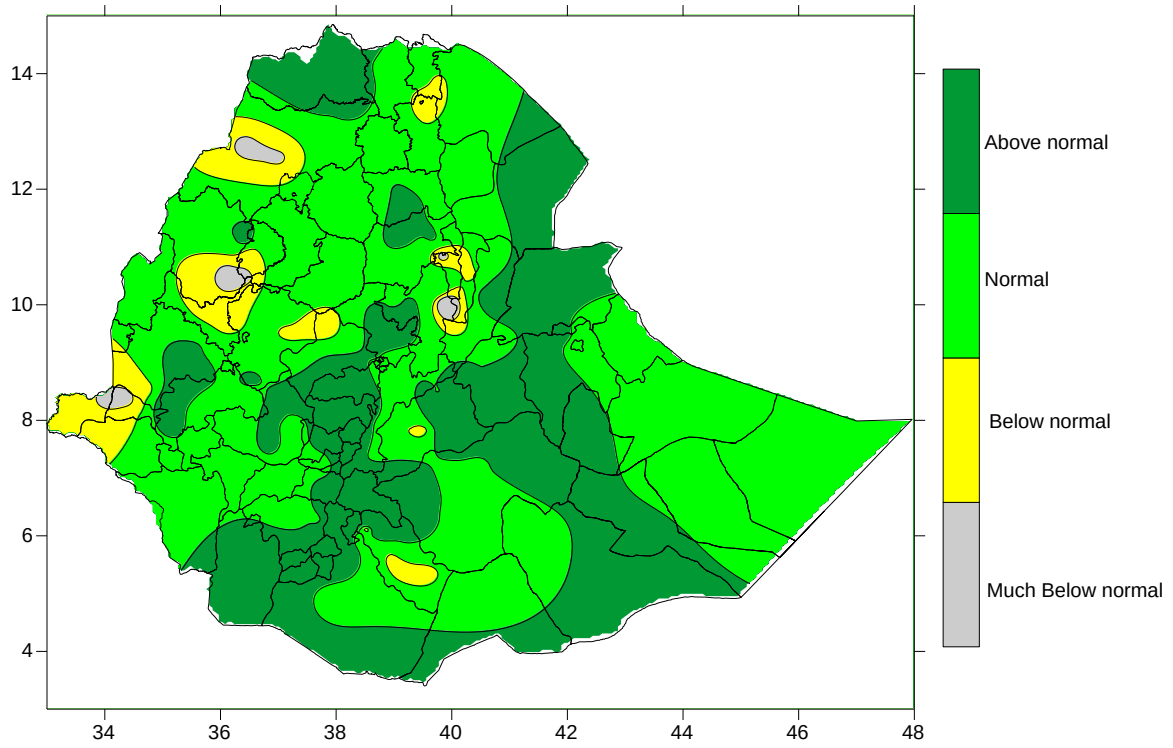


Fig.14. Percent of Normal Rainfall for Belg 2020

Explanatory notes for the Legend

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

1.8. Rainfall Anomaly on Belg Season 2020

Belg 2020 all parts of the country except pocket areas of north Gonder, Mekele, north Shewa, Kamashi and Gambela zone 1, 2 & 3 observed normal to above normal rainfall.

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE DURING BELG 2020

During the month of February improvement of moisture condition observed over some Belg growing areas over south and south western Ethiopia. It might have favoured Belg agricultural activities like land preparation and sowing of belg crops. On the month of March improvement of NDVI and rangeland WRSI were observed, which might have positive impacted the livelihood of pastoral and agro pastoral conditions on the availability of pasture and drinking water.

On the month of April, observed moderately improvement of NDVI and rangeland situation over south western, southern and south eastern part of the country. The situation might have positive impacted of pastoral and agro-pastoral areas. Relatively better moisture condition was observed over most of belg growing areas of the country, which might have favoured planting of Belg crops, sowing and land preparation of long cycle crops.

During the month of May improvement of NDVI and rangeland WRSI might have well for pasture and drinking water over south-eastern and southern parts of pastoral and agro-pastoral areas. The observed humid to moist moisture conditions over most parts of the country might have favoured the ongoing agricultural activities, planting of long cycle crops.

Total crops water requirement in Belg 2020 said to be Moderate to very good WRSI condition for Maize , Sorghum , Barley, wheat & Teff observed over central, Eastern, southern and southwestern Belg growing areas, moreover, poor to moderate WRSI condition observed over of northern and eastern highlands of Belg growing area for Maize , Sorghum , Barley, wheat & Teff.

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING KIREMT, 2020 SEASON

As for the seasonal outlook for Kiremt 2020, the country is likely to be Most of the recent and prognostic products are indicting the likelihood of continuing of ENSO neutral episodes will dominate the performance of Kiremt 2020. Hence, it has positive contribution for the wet performance of rainfall during the upcoming Kiremt season. In this regard, Normal tending to above normal rainfall is anticipated to dominate southwestern, western and much of central parts of the country. An increased chance of the domination of Normal rainfall across eastern half of Ethiopia. Northwestern parts of Ethiopia will have Normal to above normal seasonal rainfall. The onset of the season is also expected to follow its normal pattern particularly toward the south-western and western portion of the country. Normal cession of the Kiremt season; occasional heavy rains during July and August, may cause of flood across flood prone areas, in line with these, landslide will occur over isolated places. Erratic temporal distribution, with few prolonged dry spells during June and September.Generally with the anticipation of neutral episodic event during the upcoming NH summer monsoon, wet Kiremt is anticipated to dominate much of the Kiremt-rain-benefiting regions, while likely expected negative IOD Episode since July; hence, it will weaken Bega rainfall across southern Ethiopia.

During the selected analogue years, good spatial and temporal Moisture index, NDVI, WRSI and rangeland WRSI was observed over most of Kiremt Benefiting areas of the country. The expected dominating good moisture at many places of northern, northeastern, central, western, south western, eastern, and adjoining rift valleys, enable get good moisture which is conducive for Meher agricultural activities, perennial plants and availability of pastor & drinking water over pastoral and agro pastoral areas. Spatial and temporal SPI analysis for each analogue year doesn't indicate significant drought signals in most Meher crops growing areas.

The forecasted normal onset across the south-western and western portion of the country is expected to be favourable for land preparation and the timely planting of Meher crops. In line with the normal commencement of the seasonal rain, the expected moisture during June possibly will have positive implication for the existing Belg crops as well as long cycle crops which were planted during April and May.

On the other hand, areas which are positioned in the category of dominantly normal rainfall may have high chance of getting average amount of moisture, and this may favour early planted long cycle Meher crops as well as preparation of land and planting of both medium and short term Meher crops. Since these areas are expected to experience dominantly normal condition, generally farmers can follow business as usual scenario.

The areas which are under dominantly above normal rainfall category may have high chance of experiencing wettest condition during the upcoming Kiremt season. In the positive aspect this may favour early planted long cycle crops so as to meet their daily water need as well as to plant other Meher season crop in the area. However, most places under above rainfall category are normally known as moisture excess areas, the expected above average rainfall may cause saturation of soil moisture and leading to water logging, soil erosion, weed infestation, and fungus driven crop diseases. Moreover, due to longer wet spells, application of inputs, such as fertilizers and pesticides may become difficult to apply.

The major challenge for areas under above average category is excessive moisture. To cope up this challenge, farmers are advised to select excess moisture tolerant crop varieties for planting. In addition, they should clear the existing drainage channels as well as preparing new drainage structure, if it is required, to drain out excessive moisture from crop fields. Farmers are also advised for getting themselves ready for managing the possible infestation of weed and fungus driven crop disease. To minimize the risk related to flood, early preparation of diverting the runoff to the normal path of the stream flow is recommended.

Generally the following agro meteorological practice is recommended based on the Tercile rainfall category over the selected weredas, Kiremt 2020 over the selected weredas expected Normal to predominantly above normal rainfall category so the farmers to practices. Select Excess water tolerant crops varieties/cultivars, Prepare drainage structure to drain out excess water, Postpone fertilizer application, Protect weed infestation, Conduct wide range of seedling, Early preparation for protecting soil erosion, Rehabilitating the available drainage systems or establishing new drainage structure, Divert excess water to the normal path of their stream flow, Continuous scouting of crop fields to monitor the likely occurrence of pest and disease and Hunting regularly updated agro meteorological information.

3. 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 south eastern 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 north-eastern parts of the country.

CROP WATER REQUIREMENTS: - the amount of water needed to meet the water loss through evapotranspiration of a disease free crop, growing under non-restricting soil conditions including soil water and fertility.

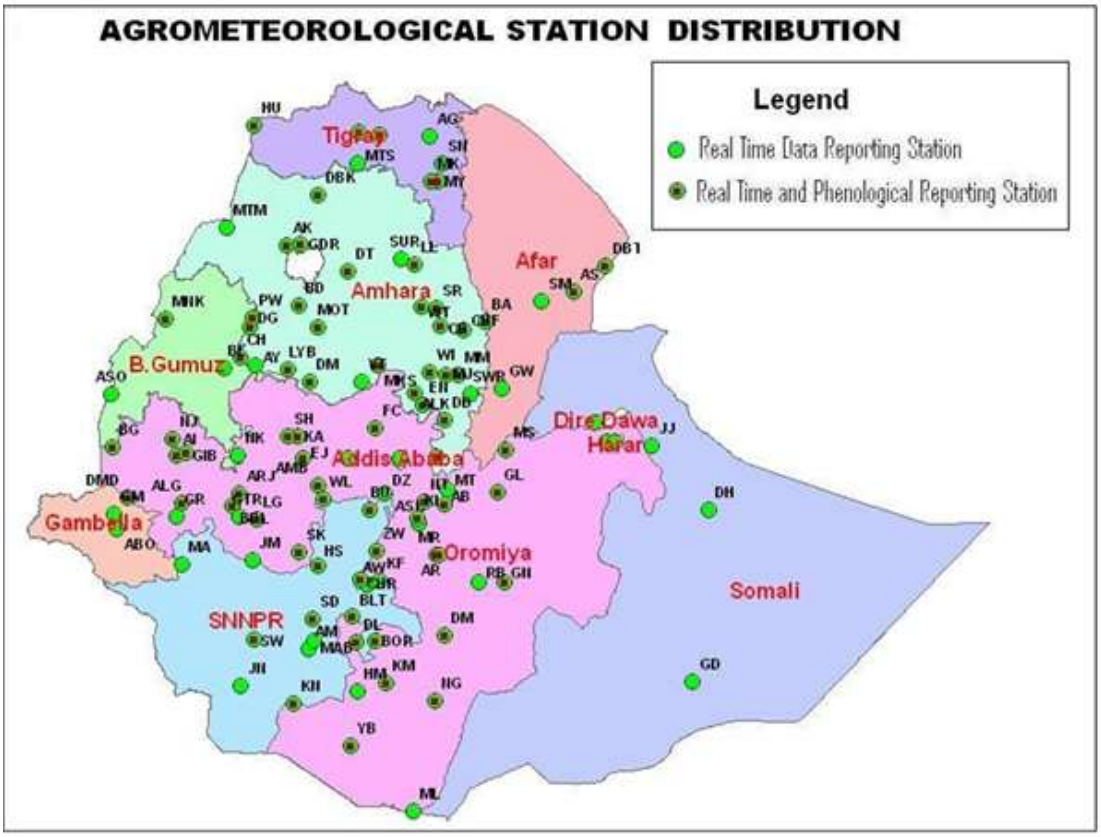
DEKAD: - First or second ten days or the remaining days of a month.

EXTREME TEMPERATURE:- The highest or the lowest temperature among the recorded maximum or minimum temperatures respectively.

ITCZ:- Inter-tropical 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 south-eastern lowlands of the country.

RAINY DAY: - A day with 1 or more mm of rainfall amount



Station	Code	Station	Code	Station	Code	Station	Code
A. Robe	AR	D. Zeit	DZ	Humera	HU	Nazereth	NT
A.A. Bole	AA	D/Dawa	DD	Jijiga	JJ	Nedjo	NJ
Adigrat	AG	D/Mena	DOM	Jimma	JM	Negelle	NG
Adwa	AD	D/Odo	DO	Jinka	JN	Nekemte	NK
Aira	AI	D/Tabor	DT	K.Dehar	KD	Pawe	PW
Alemaya	AL	Dangla	DG	K/Mingist	KM	Robe	RB
AlemKetema	ALK	Dilla	DL	Kachise	KA	Sawla	SW
Alge	ALG	Dm.Dolo	DMD	Koffele	KF	Sekoru	SK
Ambo	AMB	Dubti	DBT	Konso	KN	Senkata	SN
Arba Minch	AM	Ejaji	EJ	Kulumsa	KL	Shambu	SH
Asaita	AS	Enwary	EN	Lalibela	LL	Shire	SHR
Asela	ASL	Fiche	FC	M.Meda	MM	Shola Gebeya	SG
Assosa	ASO	Filtu	FL	M/Abaya	MAB	Sirinka	SR
Awassa	AW	Gambela	GM	Maichew	MY	Sodo	SD
Aykel	AK	Gelemso	GL	Majete	MJ	WegelTena	WT
B. Dar	BD	Ginir	GN	Masha	MA	Woliso	WL
Bati	BA	Gode	GD	Mekele	MK	Woreilu	WI
Bedelle	BDL	Gonder	GDR	Merraro	MR	Yabello	YB
BUI	BU	Gore	GR	Metehara	MT	Ziway	ZW
Combolcha	CB	H/Mariam	HM	Metema	MTM		
D. Berehan	DB	Harer	HR	Mieso	MS		
D. Habour	DH	Holleta	HL	Moyale	ML		