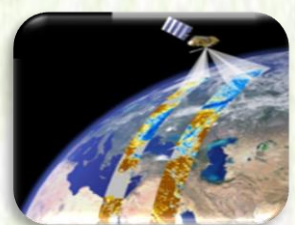


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Agrometeorological Bulletin

TEN DAY AGROMETEOROLOGICAL BULLETIN

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FOREWARD

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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SUMMARY

During the third dekad of October 2022, the analyzed agro meteorological information's indicated that the dry, Sunny and windy weather condition prevailed over most of northern half, central and eastern Meher growing areas of the country. This condition is believed to be favorable for harvest and post-harvest activities of fully matured Meher season crops. However, over some high land areas recorded minimum temperature below 5 °c among the observed station like Debberhan 1.8, 2.2 and 1.2 °c. Bui 3.8 °c , Wegel tena 1.8 and 3.0 °c, Chefa 4.0 °c, Enewary 4.6 and 4.5 °c, Fitcha 4.2 °c, and Mehalmeda 1.8 and 3.0 °c. This condition might be slightly negative impact for crops which were lately planted, currently found at various growing stages and irrigated fruits and vegetables. On the other hand, enhanced moisture condition was observed over the western, south-western, southern and south-eastern parts of the country experienced light to moderate amount of rainfall. This condition might be favourable to satisfy daily crop water requirement for various early planted Meher season crops which found different phenological stages as well as perennial plants. Moreover Bega is the second rainy season for the southern and south-eastern parts of the country, the received rain during the dekad could play very crucial role to perform different agricultural activities. Additionally, the condition had positive impact for improving the availability of pasture and drinking water and significantly important to regenerate natural and artificial ponds over both the pastoral and agro pastoral community.

During the first dekad of November 2022, the observed dry Bega weather condition could favor the ongoing harvest and post-harvest activities in most parts of Meher growing areas. As the result harvest and post-harvest activities were under way in most parts of Meher growing areas. On the other hand enhanced moisture condition was observed over Bega season rainfall benefiting areas like southern, south-western and western parts of the country. This condition might have favorable to satisfy the water need of various early planted Meher season crops which found different phenological stages, late sown cereal and pulse crops, as well as perennial plants. Moreover Bega is the second rainy season for the southern and south-eastern parts of the country, the received moisture during the dekad could play very crucial role to perform different agricultural activities. Additionally, the condition had positive impact for improving the availability of pasture and drinking water. However due to the observed occasional unseasonal rainfall particularly the last few days of the dekad experienced over eastern, central and north-western parts of the country could have negative impact in areas where they are normally supposed to get dry moisture condition at this time of the year.

Besides, the situation might have negative impact for areas which are under harvest and post-harvest activities. In relation to the dry condition, the night and morning time coldness was observed over some parts of northern, north-eastern and eastern high lands and some station recorded below 5 degree centigrade. This condition might be slightly negative impact for crops which were lately planted and currently found at various growing stages as well as fruits and vegetables which grow under irrigation.

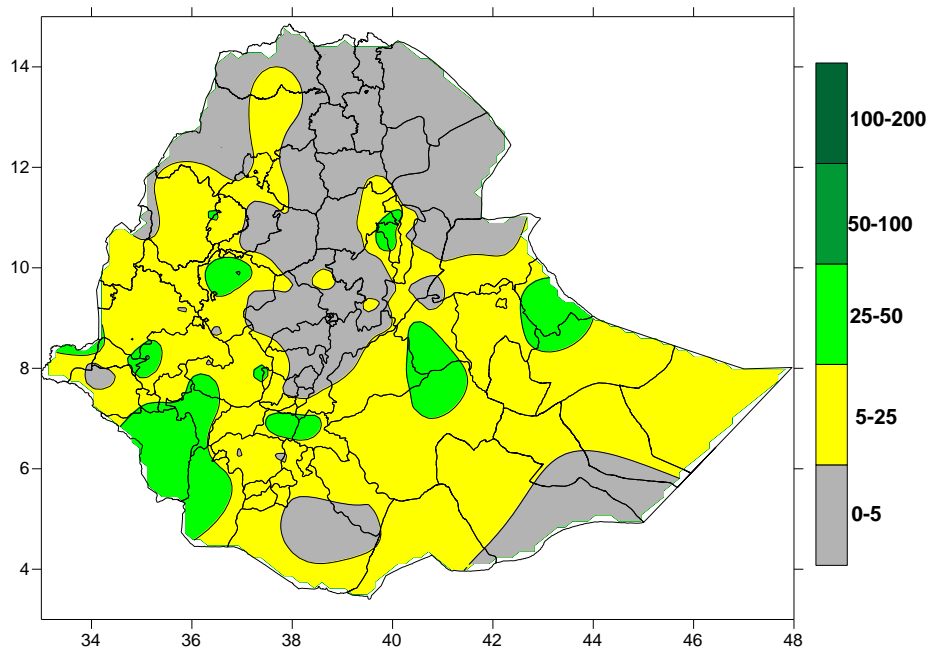


Fig 1. Rainfall distribution in mm (01 – 10) November 2022

1. WEATHER ASSESSMENT

1.1. Rainfall amount (01 – 10) November 2022

During First dekad of November 2022 Tip area of Oromia Zone, half of Jijiga, pocket areas of Degahabur ,East and West Hararaghe, Bale ,Arsi, Wolita, Sidama, half of South Omo, Benchmaji, Konso, Keffa, pocket areas of Jimma, Illibabur and West Wellega Zopnes are received 25-50mm of rainfall. Pocket West Tigray, Northa and South Gonder, Bahir Dar Metkel, Agew Awi, Assosa, Kamashi, West and East Wellega, Tango, Illibabur, Jimma, Gambella Zone 1,2, &3, Sheka, Godere, Dawero, Hadiya, Wolita, Sidama, Basketo, Goffa, Gedo, Dirsha, Konso, Amaro, Pocket areas of Borena and Giji, Liben, Bale, Arsi, half of Afder, Gode, Korahe, Degahabur, Fik, West and East Hararghe, half of Shinile, pocket areas of Afar Zone 3&5, and Oromia Zones are 5-25 mm of rainfall. The rest parts of the country exhibited 0-5 amount of rainfall.

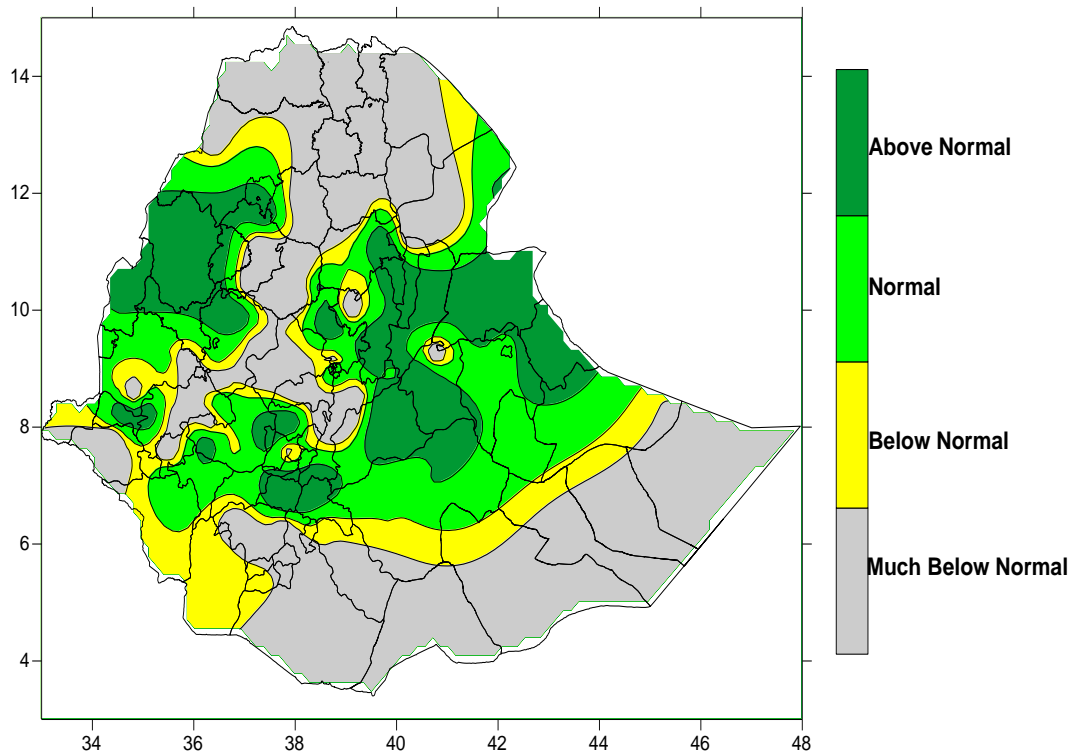


Fig. 2 Percent of normal rainfall distribution (01 – 10) November 2022

Explanatory notes for the Legend

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

1.2. Rainfall Anomaly (01 – 10) November 2022

During the first dekad of November 2022 the rain falls anomaly, pocket areas of North and South Gonder, Tip areas of Bahir Dar and Agew Awi, Metkel, Assosa, Kamashi, East and West Wellega, Tango, Gambela Zone 1, Half of Bench Maji, Keffa, Jimma, Hadiya, Wolita, Sidama, Guragi, Bale, Arsi, Fik, Degahabur, West and East Hararghe, Jijiga, Shinile, Afar Zone 3&5, Oromia zOne and pocket areas of South Wello Zones are Exhibited normal to above normal rainfall. The rest parts of country experienced below to much below normal rainfall.

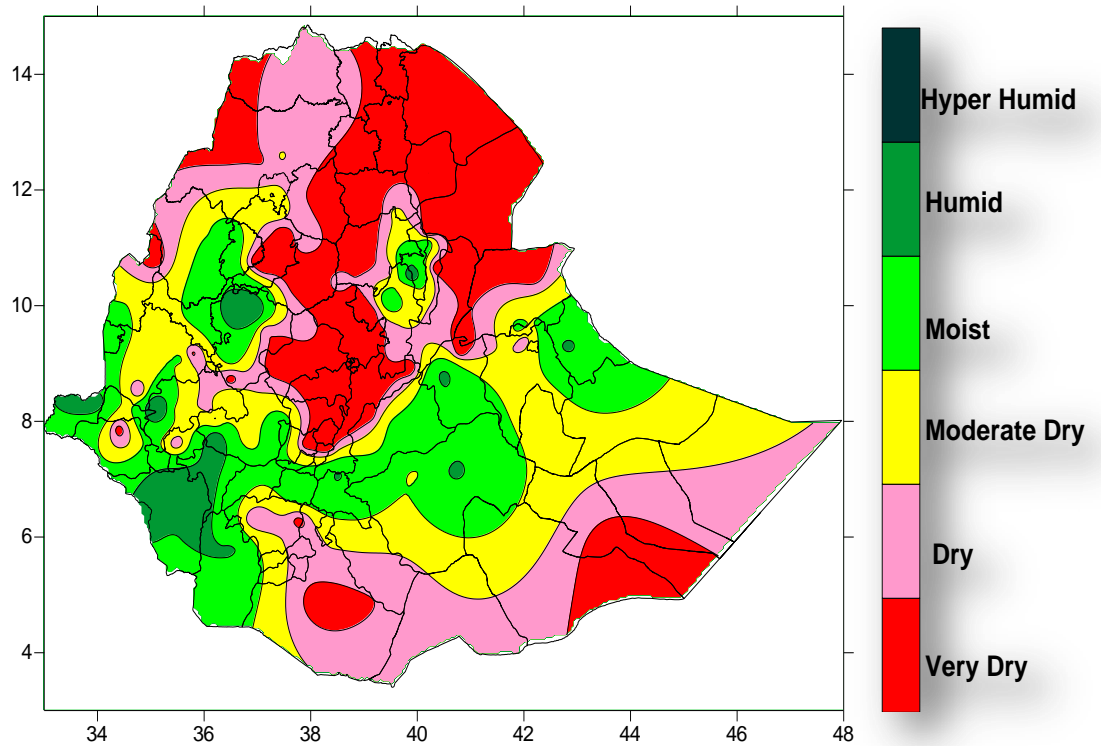


Figure.3. Moisture Status (01 – 10) November 2022)

1.1. Moisture Condition (01 – 10) November 2022

During the first dekad of November 2022 Most parts of western and south-western ad Bale, Arsi and weste Arsi, some parts of north-eastern and eastern parts of the country experienced Moist to Humid moisture condition. The rest parts of the countries exhibited moderately dry to very dry soil moisture.

NDVI and Rangeland WRSI November 1st Dekad 2022

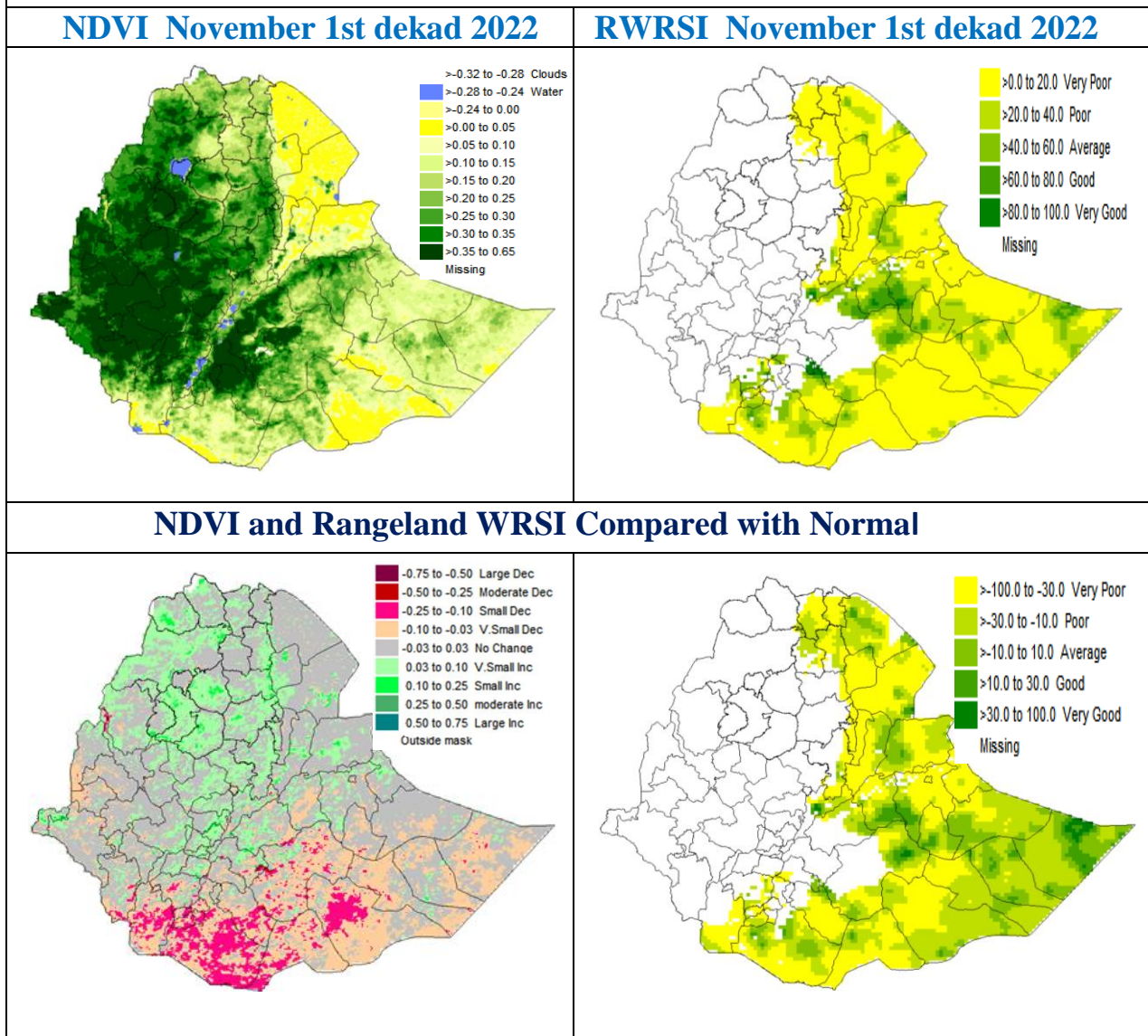


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal November 1-10, 2022

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

Generally during the first dekad of November 2022, the observed dry Bega weather condition could favour the on-going harvest and post-harvest activities in most parts of Meher growing areas. On the other hand due to enhanced moisture better (Fig.4. NDVI and Rangeland WRSI) condition was observed over Bega season rainfall benefiting areas like southern, south-western and western parts of the country. This condition might have favourable to satisfy the water need of various early planted Meher season crops which found different phenological stages, late sown cereal and pulse crops, as well as perennial plants. Moreover Bega is the second rainy season for the southern and south-eastern parts of the country, the received moisture during the dekad could play very crucial role to perform different agricultural activities. Additionally, the condition had positive impact for improving the availability of pasture and drinking water. However due to the observed occasional unseasonal rainfall particularly the last few days of the dekad experienced over eastern, central and north-western parts of the country could have negative impact in areas where they are normally supposed to get dry moisture condition at this time of the year. Besides, the situation might have negative impact for areas which are under harvest and post-harvest activities. In relation to the dry condition, the night and morning time coldness was observed over some parts of northern, north-eastern and eastern high lands and some station recorded below 5 degree centigrade. This condition might be slightly negative impact for crops which were lately planted and currently found at various growing stages as well as fruits and vegetables which grow under irrigation.

2.2 EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING SECOND DEKADE OF NOVEMBER 2022

In normal condition in second dekad of November dry, sunny and windy Bega weather is experienced and the time of harvest and post-harvest activities over most part of Meher producing areas of the country. On the other hand Southern, south-eastern and south-western parts of the country receive little rainfall.

According to the weather forecast, in the coming second dekad of November 2022, the Bega season dry moisture condition is expected to prevail across the country. The forecasted dry and sunny condition should be taken as good opportunity to perform harvest and post-harvest activities over the place where Meher season crops are fully matured. Thus, farmers are strongly advised to use this opportunity to collect fully matured crops in the meanwhile. However, in line with the expected dry weather condition, along with the night and early morning cold weather may gradually increases over the highland of the country and it may lead to the formation of frost that in turn may have slight negative impact on fruit, vegetables and other horticulture plants as well as crops which are not fully matured and ready to harvest. We recommended that Farmers and agricultural experts provide close monitoring and take appropriate action to save crops can be damaged. On the other hand, over most parts of Oromia, including east Harerge, Arsi, east Arsi, Gambela, Benshangul-Gumuze zones, most of southern parts of SNNP, south western region Keffa and Maji zones and some zones of southern Somali expected slight to moderate rainfall on the first few days of the dekad and this may be favourable for Bega season crops and perennial plants as well as to ensure the availability of pasture and drinking water for the pastoral and agro pastoral community. In addition to this, the expected rainfall in different places would have a positive impact on water requirement of crops which have not completed their growth and recently sown crops and perennial plants as well. Also availability of water and pasture will expect for pastoral and agro pastoral areas of southern parts of the country. However, the enhanced moisture condition might have negative impact for areas which are currently conducting harvest and post-harvest activities, so communities are too aware this information to collect fully matured crops.

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 covers 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.

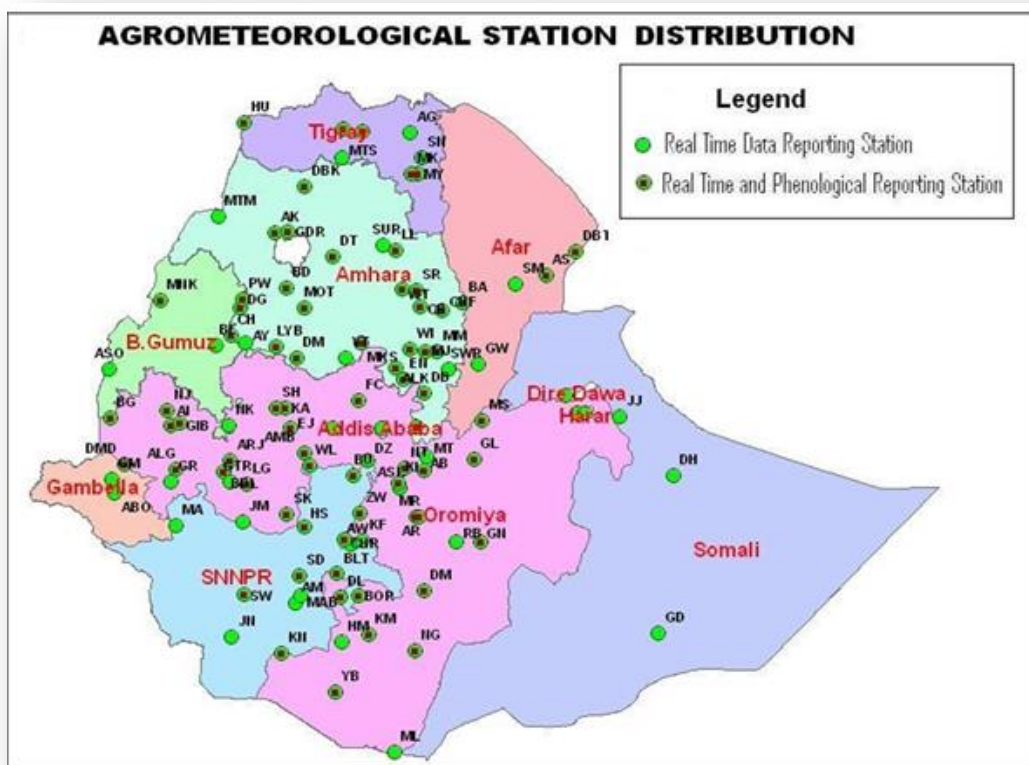
DEKAD: - First or second ten days or the remaining days of a month.

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 | SG |
| Assosa | ASO | Filtu | FL | M/Abaya | MAB | Gebeya | SR |
| Awassa | AW | Gambela | GM | Maichew | MY | Sirinka | SR |
| Aykel | AK | Gelemso | GL | Majete | MJ | Sodo | SD |
| B. Dar | BD | Ginir | GN | Masha | MA | WegelTena | WT |
| Bati | BA | Gode | GD | Masha | MA | Woliso | WL |
| Bedelle | BDL | Gonder | GDR | Mekele | MK | Woreilu | WI |
| BUI | BU | Gore | GR | Merraro | MR | Yabello | YB |
| Combolcha | CB | H/Mariam | HM | Metehara | MT | Ziway | ZW |
| D. Berehan | DB | H/Mariam | HM | Metema | MTM | | |
| D. Habour | DH | Harer | HR | Mieso | MS | | |
| D. Markos | DM | Hollela | HL | Moyale | ML | | |
| | | Hossaina | HS | M/Selam | MSL | | |