

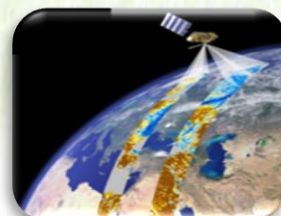
# **NATIONAL METEOROLOGY AGENCY**

## **Agrometeorological Bulletin**

### **TEN DAY AGROMETEOROLOGICAL BULLETIN**

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**1-10 August 2022   VOLUME: - 39 No. 22   DATE OF ISSUE: - August 12, 2022**



National Meteorological Agency P.O.BOX 1090, ADDIS ABABA, ETHIOPIA

Website: [http:// www.ethiomet.gov.et](http://www.ethiomet.gov.et) E-mail [nmsa@ethionet.et](mailto:nmsa@ethionet.et) Fax 251-1-517066, Tel. 251-1-512299

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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.

Director General

NMA

P.O.Box 1090

Tel: 011661-57-79

FAX 00251-11-6625292

E-mail [nmsa@ethionet.et](mailto:nmsa@ethionet.et)

Addis Ababa

## SUMMARY

According to agricultural meteorological data collected from different parts of the country, the meteorological conditions during the third dekad of July had shown more strength in amount and coverage over eastern section of the country. Like with, other areas of Kiremt rain benefiting and Meher season crop growing areas received various amount of moisture during the dekad under review. In line with, Tigray, Amhara, Benshangule, west and central Oromia, southern high lands, northern Somali, Hareri, Dire Dawa, Gambella, SNNPR, Sidama, South West Ethiopia and Afar recorded light to heavy precipitation. Due to the relative strength of meteorological systems, some place, including Debark, Gonder, D/Tabor, Bahir Dar, Sirinka, Kombolcha, Bati, Werilu, Debrework, D/Brihan, Kachise, Jimma, Wliso, Limugenet, Nekemt, Abebo, Masha and Hosana recorded heavy fall in the range of 30.4 to 117.9mm in a single day. The observed moisture during the dekad might have positive implication toward Meher agricultural activities, such as, to sustain early planted Meher season crops, for land preparation for sowing mid-term Meher crops, to fulfill the daily water need of perennial plants and to ensure the availability of pasture and drinking water over pastoral and agro-pastoral areas. In addition, the received moisture also played significant role to enrich both natural and artificial water points. On the other hand, the heavy and continuous rainfall in some areas might cause river overflow and flooding in some places that are prone to flooding, and resulted excess soil moisture.

During the first dekad of August 2022, over large areas of Kiremt rain benefiting as well as Meher crop growing areas were continuously receiving enhanced moisture within the range of Moist to supper moist condition. In line with this, Amhara, Benshangul-Gumuze, western and central Oromia, SNNPR and southern high lands received heavy rainfall. Generaly Tigray Amhara, Benshangul-Gumuze, western and central Oromia, southern high lands northern Somali, Harari and Dire dawa, Gambela and SNNPR, Sidama and south-western Ethiopia and Afar experienced slight to heavy rainfall. According to the weather report, many places across the country exhibited heavy fall in the range between (30 - 65.2) mm within 24hrs interval. This condition had been good enough to satisfy daily crop water requirement for various early planted Meher season crops including the long cycle crops such as maize and Sorghums. In general the wide distribution of rainfall across Kiremt rain benefiting areas could have a positive contribution toward enhancing the growth of early planted various crops as well as perennial plants. The enhanced moisture over the north eastern and the eastern pastoral and agro pastoral community might play crucial role toward



improving the availability of pasture and drinking water as well as to regenerate natural and artificial ponds. On the other hand, areas which have been receiving rainfall in continuous manner might experience excess soil moisture which might lead to water logging and runoff. Further, the reported locally heavy falls might enhance the occurrence of flood and soil erosion.

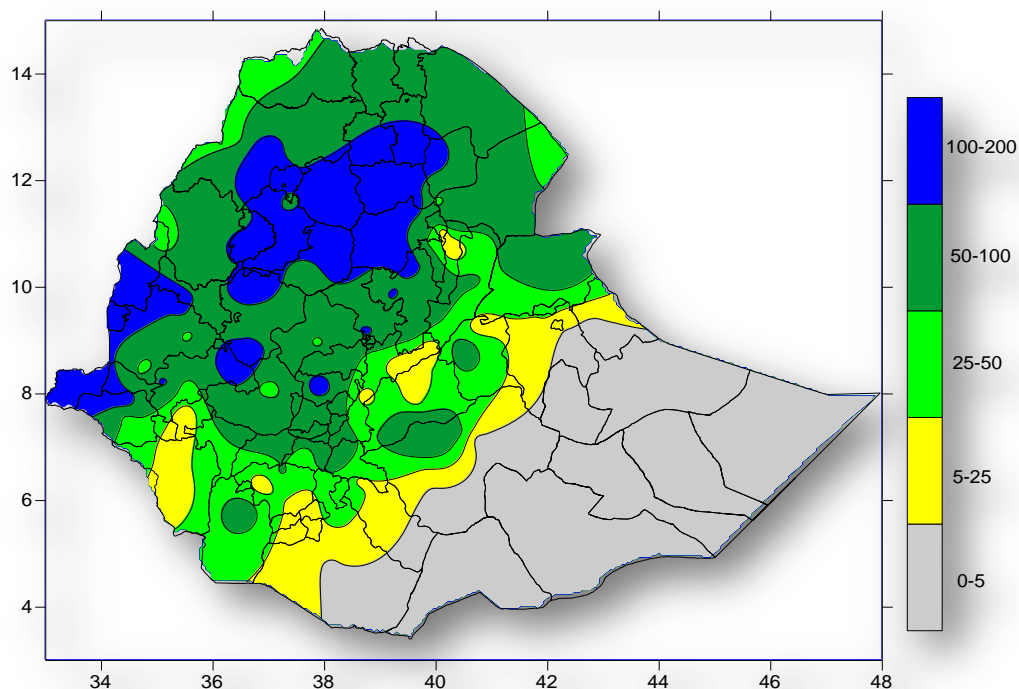


Figure 1. Rainfall distribution in mm (1 – 10) August, 2022

## 1. WEATHER ASSESSMENT

### 1.1. Rainfall amount (1 – 10 August, 2022)

During the first August 2022 pocket area of south Tigray, north and south Gonder, Wag Himera, north and south Wollo, Bahir Dar, west and east Gojam, Agew Awi, Assosa, Tongo, Gambela zone 1 & 3, Illubabur, Addis Ababa zone and Gurage received 100-200mm Rain fall. west, east, central and south Tigray, north and south Gonder, Bahir Dar, west Gojam, Metekel, Agew Awi, Afar zone 1, 2, 3, 4& 5, Assosa, Kamashi, west and east Wellega, north, west and south Shewa, Addis Ababa zone, Gambela zone 1, 2 & 3, Godere, Keffa, Jimma, YEM, Bench Maji, Dawuro, KT, Selti, Alaba, Hadiya, Sidama and Gurage received 50-100mm Rain fall. west, Tigray, north Gonder, Metekel, Afar zone 1, 2, 3, 4 & 5, Oromia especial zone, Shinille, Sheka, Godere, Basketo, Gamo gofa, Amaro, Borena, South Omo, Derashe, Keffa, Welayita, Sidama, Bale, Arsi, west and east Harergie, Harere and Jigjiga

received 25-50mm Rain fall. Sheka, Godere, Bench Maji, Gamo gofa, Konso, Derashe, Guji, Burji, Amaro, Bale, east Shewa, east and west Harergie, Harere and Jigjiga received 5-25mm Rain fall. The rest parts o f the countries received 0-5mm Rainfall.

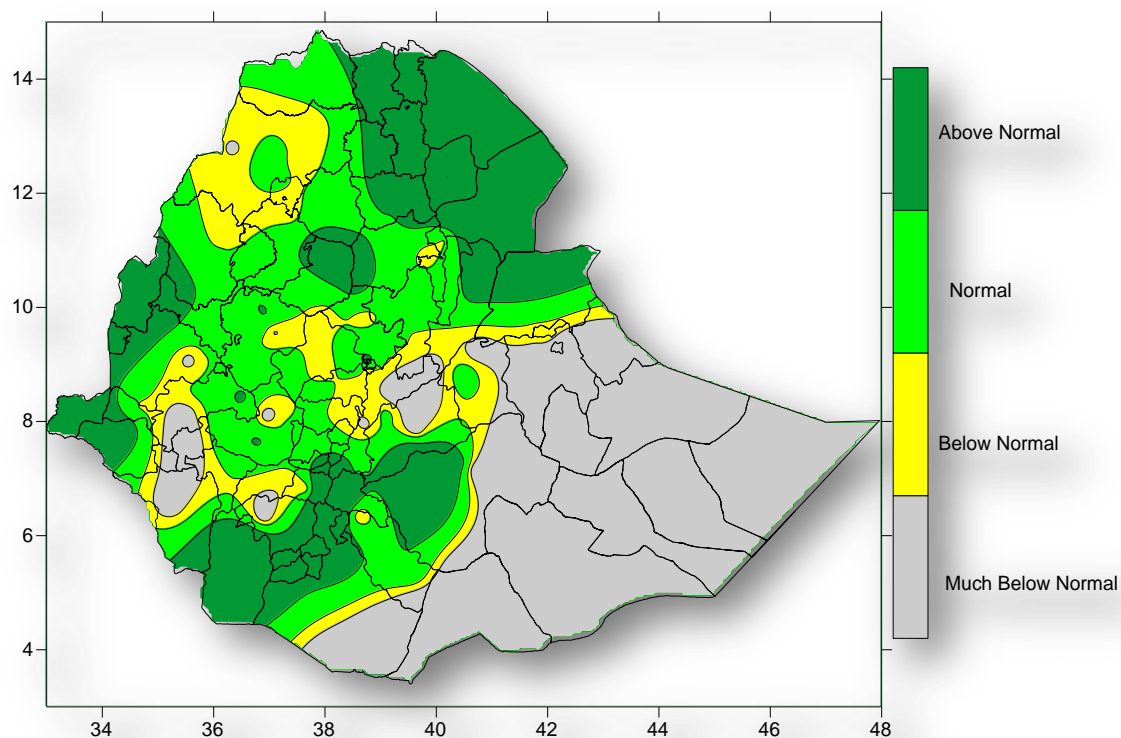


Figure 2: Percent of normal rainfall distribution (1-10 August, 2022)

#### Explanatory notes for the Legend

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

#### 1.2. Rainfall Anomaly (1 – 10 August, 2022)

During first August 2022 west Tigray, south and north Gonder, Metekel, Bahir Dar, west and east Wellega, Illubabur, Sheka, Godere, Keffa, Bench Maji, Dawuro, North, west and south west Shewa, Selti, Gurage, , South Omo, Derashe, Konso, Amaro, Borena, Guji, west and east Harergie, Harere, Jigjiga, Fik, Bale, Liben, Afder, Gode, Korahe and Warder exhibited Below Normal too Much Below Normal. The rest parts of the countries exhibited Normal to Above Normal.

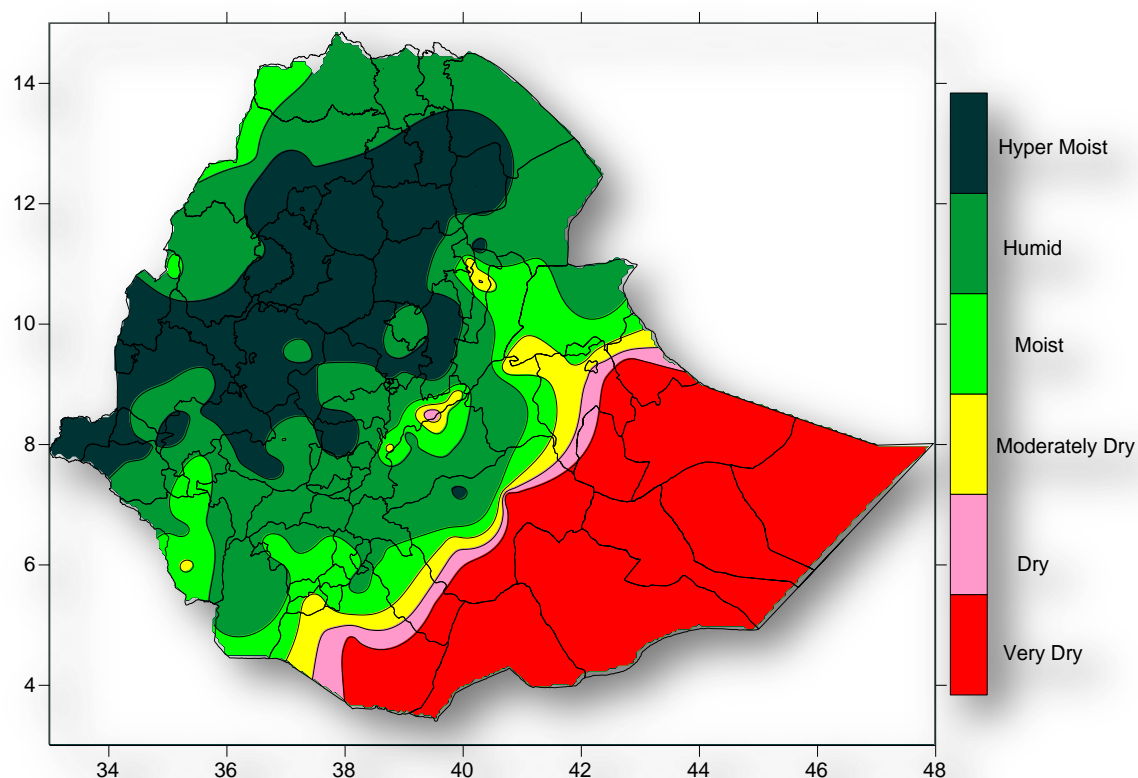


Figure.3. Moisture Status (1-10 August, 2022)

### 1.3. Moisture Condition (1 – 10 August, 2022)

During first dekad of August 2022 east and west Harergie, Afar Harer, Jiggiga, Konso, Guji, Amaro, Burji, Bale, Liben, Afder, Gode, Korahe, Fik, Deghabur and Warder exhibited moderately Dry too Very Dry. The rest parts of the countries exhibited Hyper Moist to Moist.

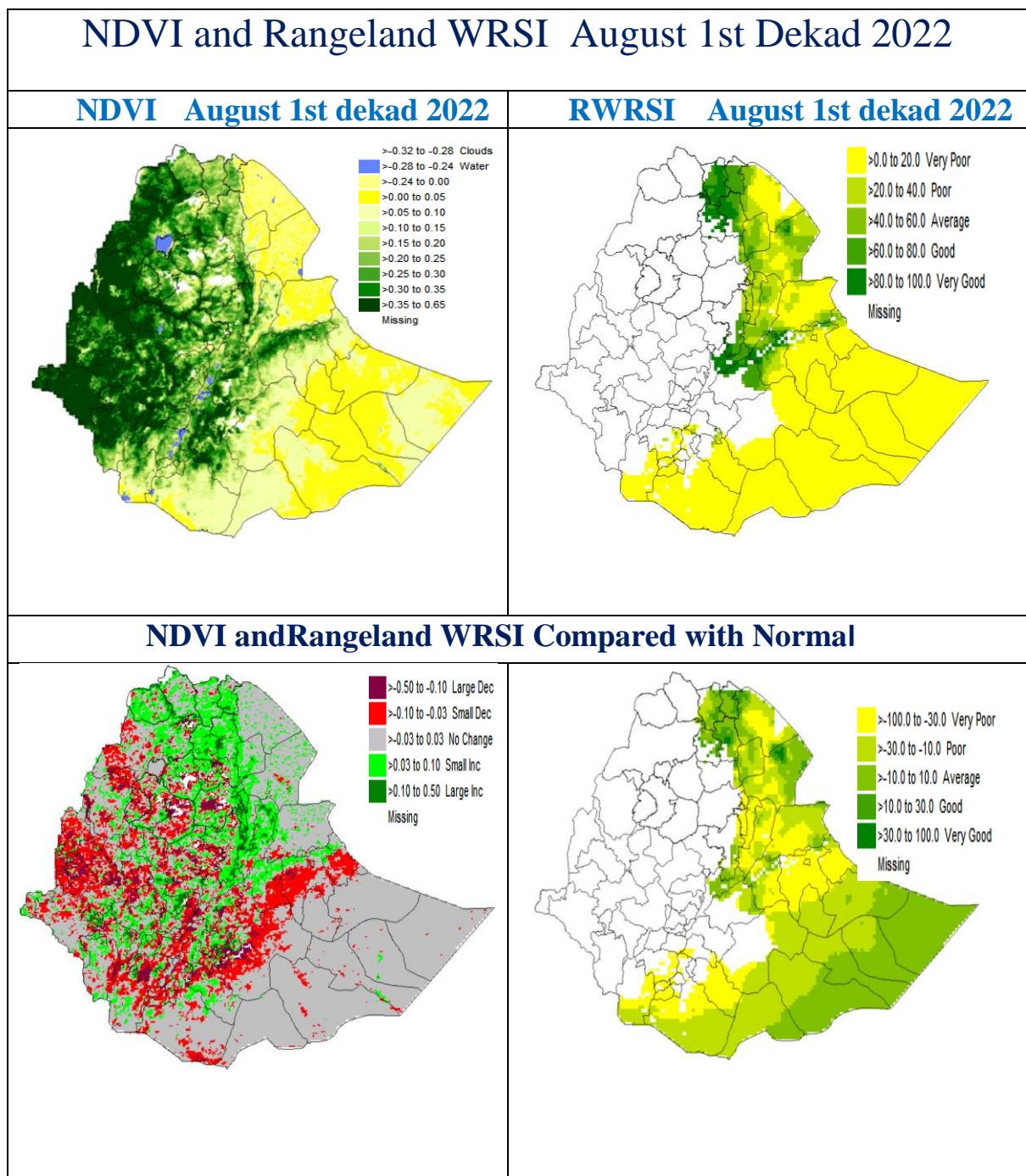


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal – August 1-10, 2022



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

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

Generally during the first dekad of August 2022, over large areas of Kiremt rain benefiting as well as Meher crop growing areas were continuously receiving enhanced moisture within the range of Moist to supper moist condition. In line with this, Amhara,

Benshangul-Gumuz, western and central Oromia, SNNPR and southern high lands received heavy rainfall. Generally Tigray Amhara, Benshangul-Gumuz, western and central Oromia, southern high lands northern Somali, Harari and Dire dawa, Gambela and SNNPR, Sidama and south-western Ethiopia and Afar experienced slight to heavy rainfall. According to the weather report, many places across the country exhibited heavy fall in the range between (30 - 65.2) mm within 24hrs interval. This condition had been good enough to satisfy daily crop water requirement for various early planted Meher season crops including the long cycle crops such as maize and Sorghums. In general the wide distribution of rainfall across Kiremt rain benefiting areas could have a positive contribution toward enhancing the growth of early planted various crops as well as perennial plants. The enhanced moisture over the north eastern and the eastern pastoral and agro pastoral community might play crucial role toward improving the availability of pasture and drinking water as well as to regenerate natural and artificial ponds. On the other hand, areas which have been receiving rainfall in continuous manner might experience excess soil moisture which might lead to water logging and runoff. Further, the reported locally heavy falls might enhance the occurrence of flood and soil erosion.

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

In the coming second dekad of August 2022, the meteorological forecast information indicates that the seasonal rainfall activity is expected to strength in amount and distribution over much of Kiremt rainfall benefiting as well as Meher producing area of the country.

In line with this, Oromia region of all zones of Wellega and Shewa, Jimma, Ilubabor, Buno Beddele, Addis Ababa, Addis Ababa zuria, Amhara region, Tigray region, Afar region, Gambela, Benshangul-Gumuz, south-western region all zones will experienced normal to above normal rainfall. Besides in some places will received heavy rainfall. Moreover western Harerge, all zones of Arsi, Dire dewa and Harari, SNNPR except southern zones, all zones of Sidama regions, northern parts of Bale and Guji zones, Somali regions of city zones will expected near normal rainfall in most place. The situation will favour ongoing meher agricultural activities in terms of crop water requirement such as water availability of perennial plants, Meher crops which found at different phonological stage and it will favour for the improvement of pasture and drinking water availability particularly over eastern and north eastern pastoral and agro pastoral low lands and the situation also could give an opportunity to collect and store rain water for areas often deal with moisture stress problem. However, 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 particularly over low-lying areas and anticipated to generate flash floods due to raise water levels across the river banks. Thus, proper attention should be undertaken to minimize the risk in areas where there is no proper drainage system and low-lying areas making furrow and channel in order to reduce the effect of excess moisture. 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 and in areas where the deficient and erratic rainfall is anticipated there would be a possibility of pest and disease outbreak since the expected weather condition is favourable for the event. Therefore proper attention should be given for sensitive areas ahead of time to control the possible risk.

### **3. DEFINITION 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

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