

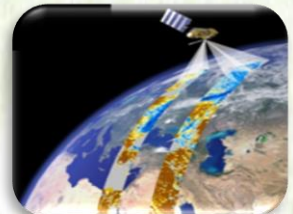
# **NATIONAL METEOROLOGY AGENCY**

## **Agrometeorological Bulletin**

### **TEN DAY AGROMETEOROLOGICAL BULLETIN**

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**11-12 March 2022    VOLUME: - 39 No. 07    DATE OF ISSUE: - March 22, 2022**



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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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## SUMMARY

During the first dekad of March, dry moisture condition was observed in most parts of the country. Due to the prevailing dry moisture, some highlands had experienced temperatures below 5 °C, especially in the first few days of the dekad. In line with this, minimum temperatures ranging from 4.0 to 5.0 °C recorded over Wegel Tena, Haromaya, Bui and Amba Mariam weather stations. Although such low temperatures recorded over some stations, it may not have a significant effect on the current farming practice but might have a small negative impact on the growth of permanent plants and some fully immature irrigated crops. On the other hand, the report collected from various agricultural meteorological stations indicated that the daily maximum temperature ranged from 40 to 46 °C was recorded in some lowland areas. This condition might increase the daily evaporation rate and could play a role in reducing the soil moisture content which might result moisture stress in the crop root zone. Despite the prevailing dry moisture across the country, parts of SSNPR, Gambella, West Amhara and Oromia regions received light rains. However, the received small amount of moisture during the dekad couldn't be enough to sustain the Belg season agricultural activities.

During the second dekad of March, dry moisture conditions prevailed over most parts of the country. However, due to the relative strengthening of rain bearing weather systems, light to heavy moisture was observed parts of the country including west Oromia, southwestern of SNNPR, eastern, central and southern Amhara. Heavy rainfall was also recorded in some places including Amba Mariam 46.6mm, Masha 30.4mm, Shambu 44.3mm, Weliso 32.3mm and Aman 33.8mm. This condition might have positive impact to perform land preparation and planting for Belg season crops in areas where the rain onset was a bit delayed from its normal time of sowing as well as for perennial plants and early sowed crops. In addition, the condition had been favorable toward improving the availability of pasture and drinking water over the pastorals and agro-pastoral communities. Moreover, the obtained heavy rainfall could be favorable, for farmers who are in moisture stress areas, to collect and store rainwater.



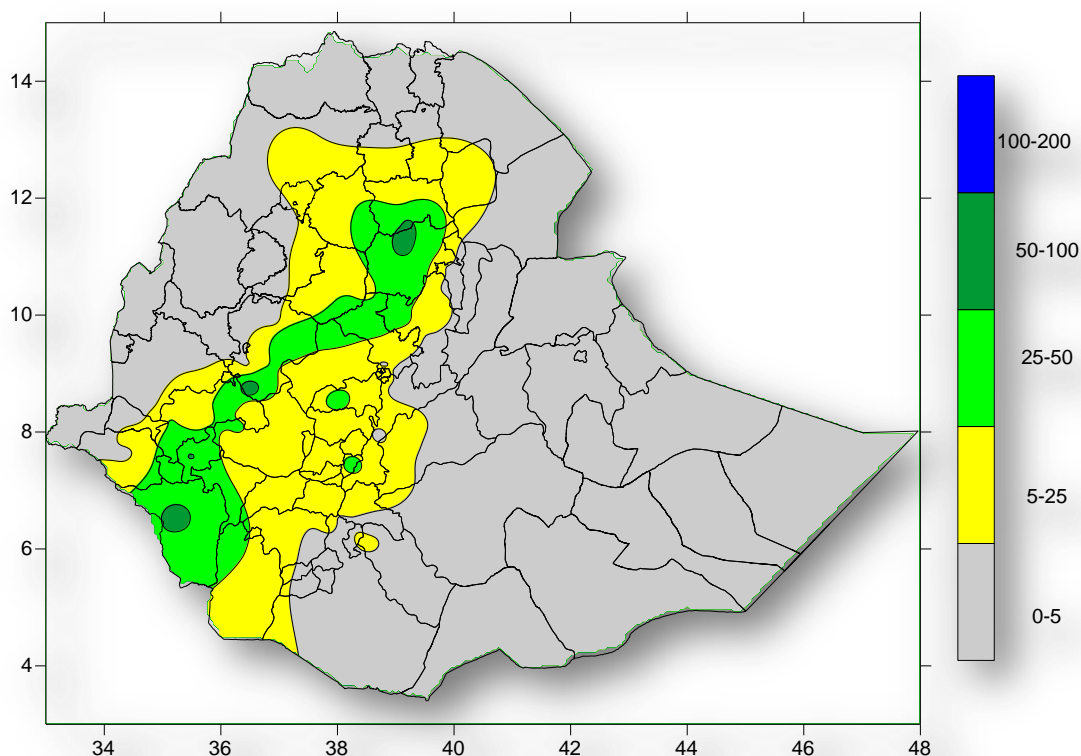


Fig 1. Rainfall distribution in mm (11 – 20) March 2022

## 1. WEATHER ASSESSMENT

### 1.1. Rainfall amount (11 – 20 March 2022)

During the second dekad March 2022 pocket area of north and south Wollo, east Wellega and Bench Maji received 50-100mm Rain fall. North and south Wollo, Oromia especial zone, east Wellega, north, west, and south west Shewa, Illubabur, Sheka, Godere, Keffa, Bench Maji, Basketo, South Omo and Alaba received 25-50mm Rain fall. north and south Gonder, north and south Wollo, east and west Gojam, Oromia especial zone, east, north, west and south west Shewa, Addis Ababa zone, Illubabur, YEM, Alaba, Hadiya, Selti, Arsi, Dawero, Sheka, Godere, Bench Maji, Keffa, Basketo, South Omo, Dirashe and Gamo gofa received 5-25mm Rain fall. The rest parts o f the countries received 0-5mm Rainfall.

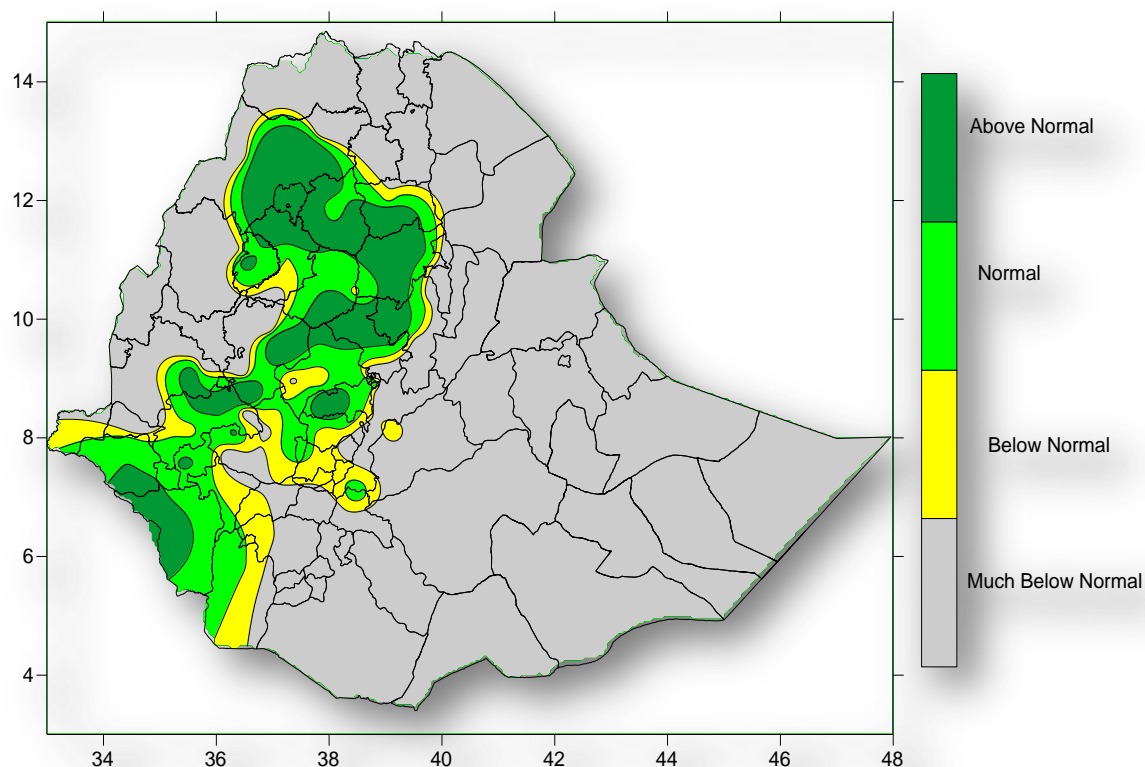


Fig.2 Percent of normal rainfall distribution (11 – 20 March, 2022)

#### Explanatory notes for the Legend

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

#### 1.2. Rainfall Anomaly (11 – 20 march, 2022)

During the second dekad of March 2022 north and south Wollo, Bahir Dar, east Wellega, Agew-Awi, Gambela zone 2 Bench Maji north and south Wollo, Oromia especial zone, east Wellega, Illubabur, Sheka, Godere, Keffa, north and south Gonder, east and west Gojam, Oromia especial zone, east, north, west and south west Shewa, Addis Ababa zone, YEM, Alaba, Hadiya, Selti, Arsi, Dawero, Sheka, Godere, Bench Maji, Keffa, Basketo, South Omo, Dirashe and Gamo gofa exhibited Normal to Above Normal. The rest parts of the countries exhibited Below Normal too Much Below Normal.

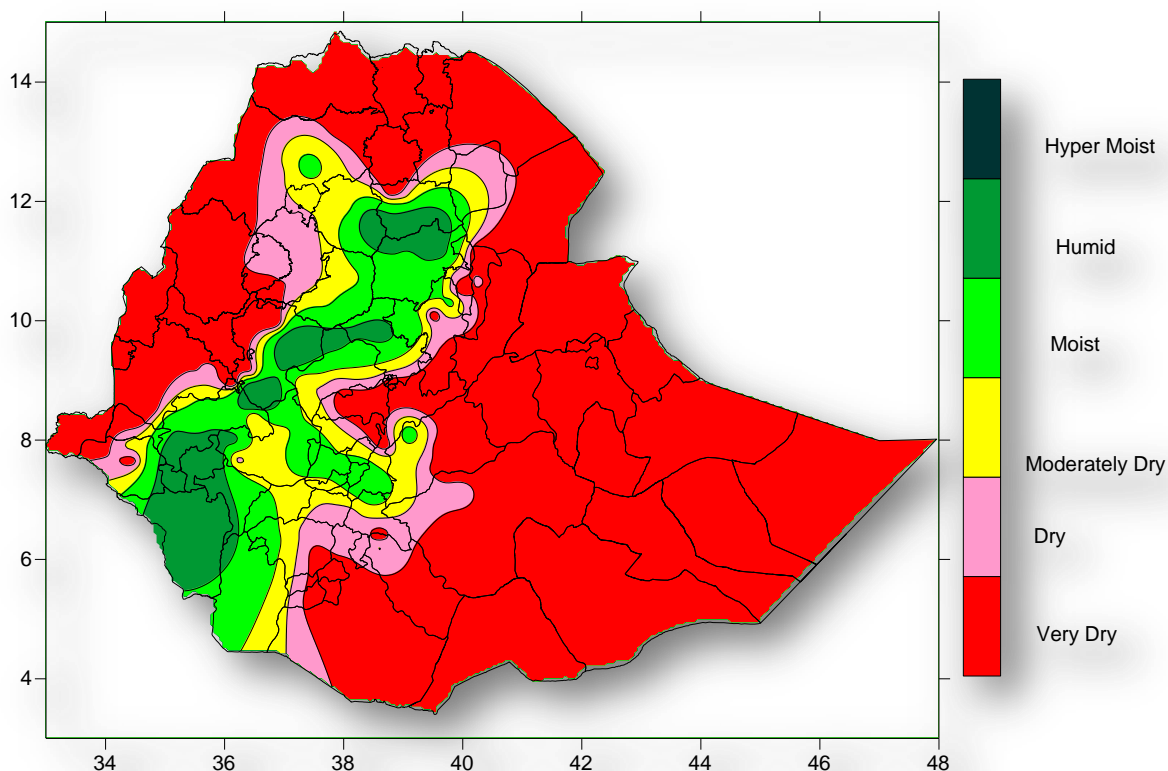


Fig. 3 moisture status for (11 – 20 March, 2022)

### 1.3. MOISTURE CONDITION (11 – 20 March 2022)

As indicated on the moisture status map above during second dekad of March 2022 north and south Gonder, north and south Wollo, east and west Gojam, Oromia especial zone, east, north, west and south west Shewa, Addis Ababa zone, Illubabur, YEM, Alaba, Hadiya, Selti, Arsi, Dawero, Sheka, Godere, Bench Maji, Keffa, Basketo, South Omo, Dirashe and Gamo gofa exhibited Hyper Moist to Moist. The rest parts of the countries exhibited moderately Dry too Very Dry.

## March 2nd Dekad 2022 NDVI and Rangeland WRSI

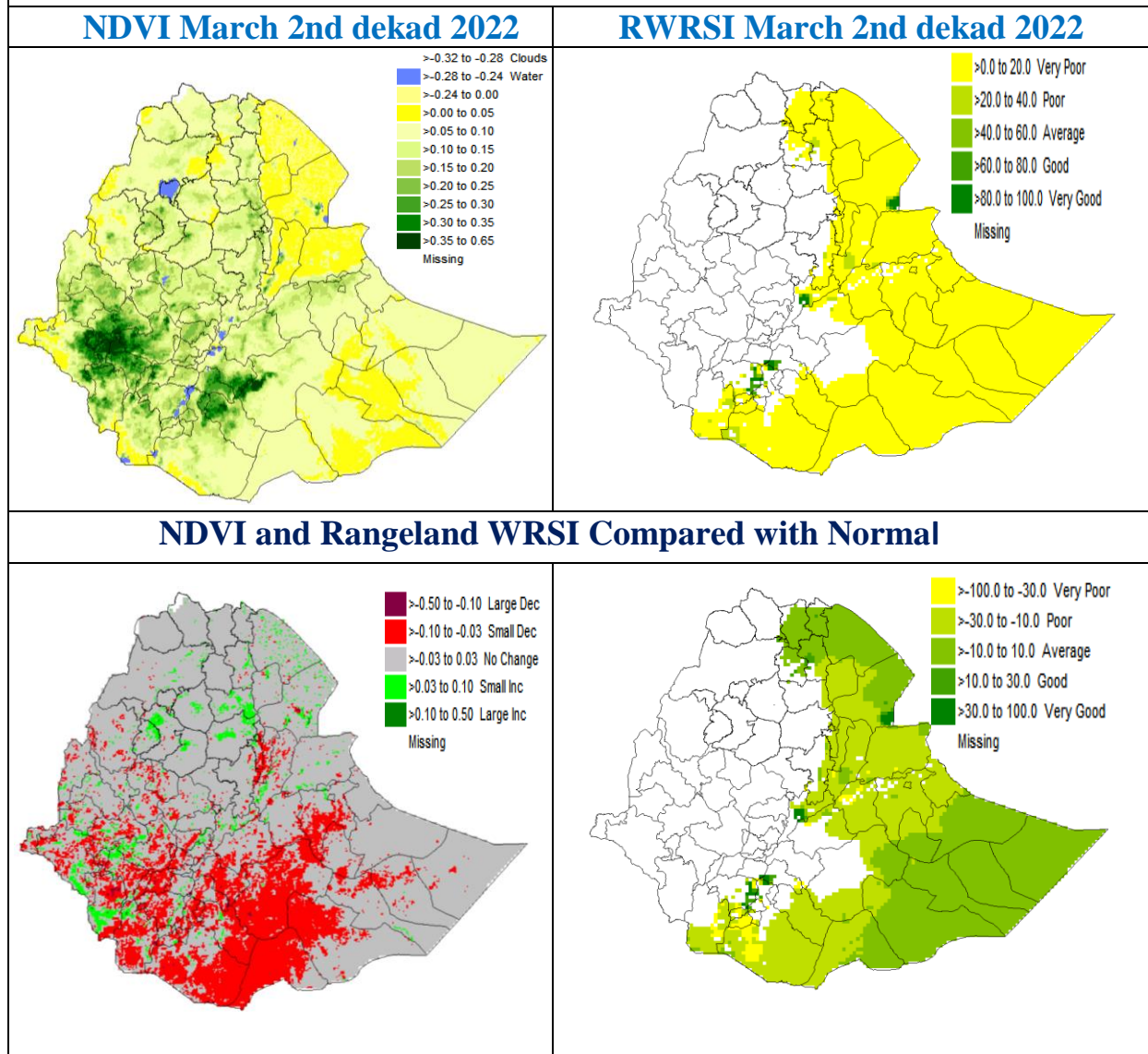


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - March 11-20, 2021



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

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

During the second dekad of March, dry moisture conditions prevailed over most parts of the country. However, due to the relative strengthening of rain bearing weather systems, light to heavy moisture was observed parts of the country including west Oromia, southwestern of SNNPR, eastern, central and southern Amhara. Heavy rainfall was also recorded in some places including Amba Mariam 46.6mm, Masha 30.4mm, Shambu 44.3mm, Weliso 32.3mm and Aman 33.8mm. This condition might have positive impact to perform land preparation and planting for Belg season crops in areas where the rain onset was a bit delayed from its normal time of sowing as well as for perennial plants and early sowed crops. In addition, the condition had been favorable toward improving the availability of pasture and drinking water over the pastorals and agro-pastoral communities. Moreover, the obtained heavy rainfall could be favorable, for farmers who are in moisture stress areas, to collect and store rainwater.

### **2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING 3<sup>rd</sup> DEKAD of MARCH 2022**

Normally, after mid of March, Belg season crops as well as long-cycle Meher season crops are widely planted in line with the relative strengthening of rain bearing meteorological systems.

According to the weather forecasts, the moisture conditions are expected to enhance from day to day over Belg season crop growing and rain benefiting areas for the upcoming last dekad of the month. In particular, the south, central and southeastern parts of the country are likely to get light to heavy amount of rainfall. This condition will play a positive role in land preparation and sowing of short- and long-term crops as well as for early planted crops and for perennials and on the availability of pasture and drinking water. Therefore, farmers and all the concerned bodies are advised to get the advantage of the expected moisture improvement to sow various crops including which are late to plant due to the late onset of

season. Farmers and pastoralists who live in moisture stress areas are also advised to make the necessary arrangements for rainwater harvesting and storage which in turn may use at time of need.

### **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

### AGROMETEOROLOGICAL STATION DISTRIBUTION

**Legend**

- Real Time Data Reporting Station
- Real Time and Phenological Reporting Station

NMA Agro meteorology Ten day bulletin