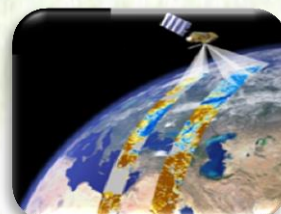


ETHIOPIA METEOROLOGY INSTITUTE

Agrometeorological Bulletin

TEN DAY AGROMETEOROLOGICAL BULLETIN

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TABLE OF CONIENTS

FORE WARD	2
SUMMARY	3
1. WEATHER ASSESSMENT	4
1.1. Rainfall amount (11 – 20 May 2024)	4
1.2. Rainfall Anomaly (11 – 20 May, 2024)	5
1.3. Moisture Condition (11 – 20 May 2024).....	6
2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE	7
2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE.....	7
2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING THIRD DEKAD of MAY 2024	8
3. DEFNITION OF TERMS.....	9

FORE WARD

This Agro met Bulletin is prepared and disseminated by the Ethiopia Meteorology Institute (EMI). 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

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SUMMARY

During the first dekad of May 2024 the analysed agro meteorological information indicated that the moisture condition had shown relative strength across Belg season rain benefiting areas. In line with this, north- eastern, central, southern, south-western, western and south-western parts of the country experienced rainfall in the range of 1 moderate to heavy in amount. This situation had positive role for early sown of Belg crops which found in different growing stages as well as satisfy the water need of perianal plants and for availability of pastors and drinking water across the pastoral and agro-pastoral areas. In addition, the received moisture during the dekad under review might have positive impact for land preparation for areas which supposed to plant long cycle crops earlier. In like manner, the observed moisture in the southern low land parts of the country could be crucially important toward the availability of pasture and drinking water for the pastoralist and agro pastoralist community. Moreover, the obtained heavy rainfall could be favorable, for farmers who are in moisture stress areas, to collect and store rainwater where that can be used in time of deficit.

During the second dekad of April 2024, According to the analysed agro-meteorological information, most of Belg crop growing as well as Belg season rain benefiting areas experienced enhanced moisture situation in amount and distribution. In relation with the enhanced moisture condition heavy rainfall 30mm and above during 24hrs period were reported at several agro-meteorological stations. This situation might have positive impact on moisture requirement of Belg crops found at various phases of growth and water need of perennial plants, the observed condition was positive to conduct land preparation and sowing of long cycle crops that could be performed during April, it could also gave good opportunity to perform rain water harvesting and storing. Moreover the observed widespread moisture distribution could also have indispensable contribution on the availability of pasture and drinking water for pastoral areas. However, due to the pronounced widespread and intensified rainfall with hailstone over some places of the country might result in crop damage, which were attaining at different phenological stages. Moreover the observed heavy fall 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,

1. WEATHER ASSESSMENT

1.1. Rainfall amount (11 – 20 May 2024)

During the Second dekad of May 2024, adjacent areas of Sidama and Gedeo, Bench Maji and Godere, West Wollega and Illubabor, Jimma Pocket areas of Bale, Gamo Goffa, South Omo and Guji Zones were dominated above 100 mm of rainfall. In addition to this, some parts of Sidama, Gedeo, Bench Maji, South Ommo, Basketo, Derashe, Sheka, Konso, Amaro, Keffa, Dawro, Adjacent areas of Gambela Zone1&3, Godere, Aman, East and West Wollega, Illubabor, Jimma, Bale, Gamo Goffa, Guji, West and North Shewa, East and West Gojam, Awi, Bahirdar, North and South Gonder, Pocket areas of East Hararghe Zones were received 50-100 mm of rainfall. On the other hand some parts of Bale, Borena, West Hararghe, Gambela Zone 1, 2 and 3, Assossa, Kemashe, pocket areas of Metekel, Waghimira, South and North Gonder, South Wollo, Afar Zone 1, Central and East Tigray Zones were received 25-50mm of rainfall. However, Some parts of West and Central Tigray, Afar Zone1, 2, 3, 4 and 5 North and South Wollo, Oromia Special Zone, Jigjiga, East and West Hararghe, Afder, Liben, Arsi, Bale, Fiq and Gode zones were exhibited 5-25 mm of rainfall. The rest parts of the country especially some central, Eastern, Southeastern and Western tip parts of the country were received 0-5 mm of rainfall.

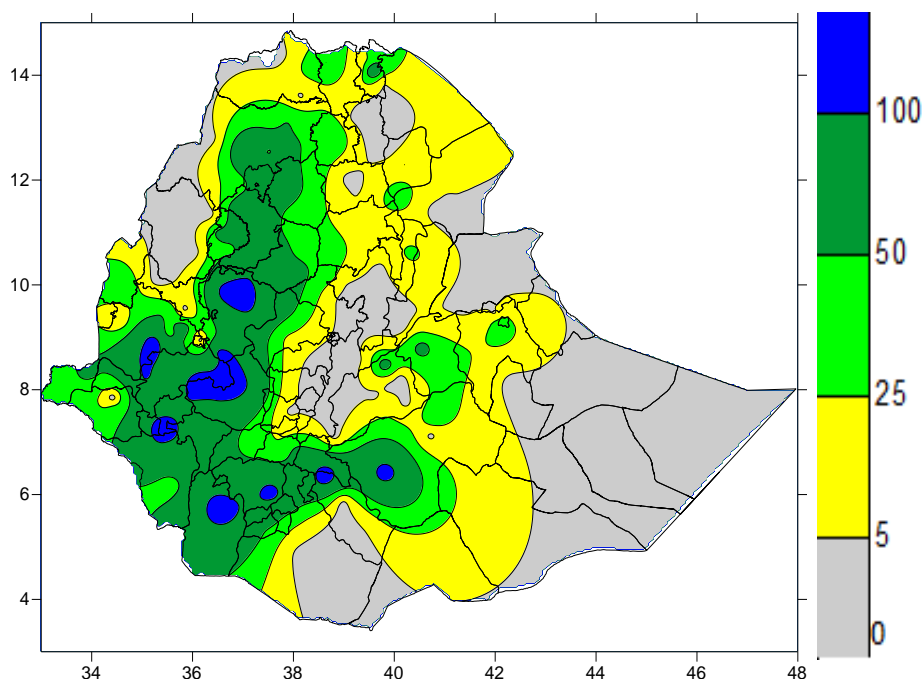


Fig 1. Rainfall distribution in mm (11 – 20) May 2024

1.2. Rainfall Anomaly (11 – 20 May, 2024)

When we look the rainfall anomaly map below, during the Second dekad of May 2024, the Western half, Sothern, Northern and some Central parts of the country were exhibited Normal to Above Normal rainfall condition. On the other hand, Most of the Eastern, some Central, South and North Eastern and Western tip of the country were experienced Below Normal to Much Below Normal rainfall condition

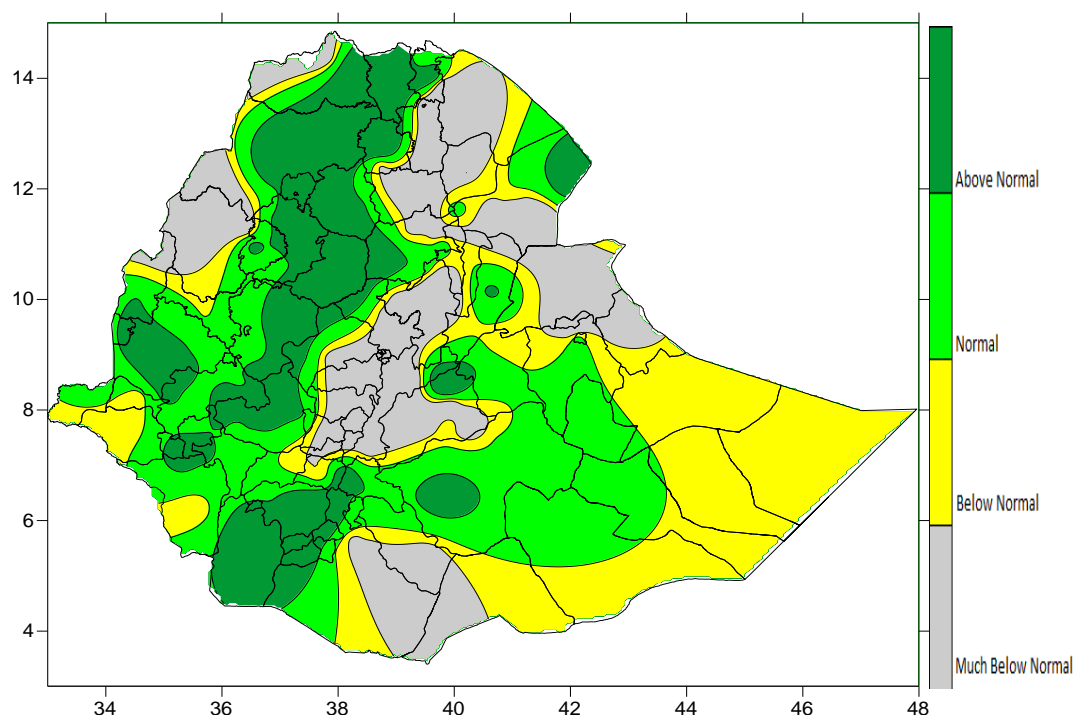


Fig.2 Percent of normal rainfall distribution (11 – 20 May, 2024)

Explanatory notes for the Legend

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

1.3. Moisture Condition (11 – 20 May 2024)

As indicated on the moisture status map below during first dekad of March 2024 most parts of Belg growing and rain benefiting areas of the country exhibited Moist to Hyper Moist moisture condition. The rest parts of the countries exhibited moderately Dry too Very Dry.

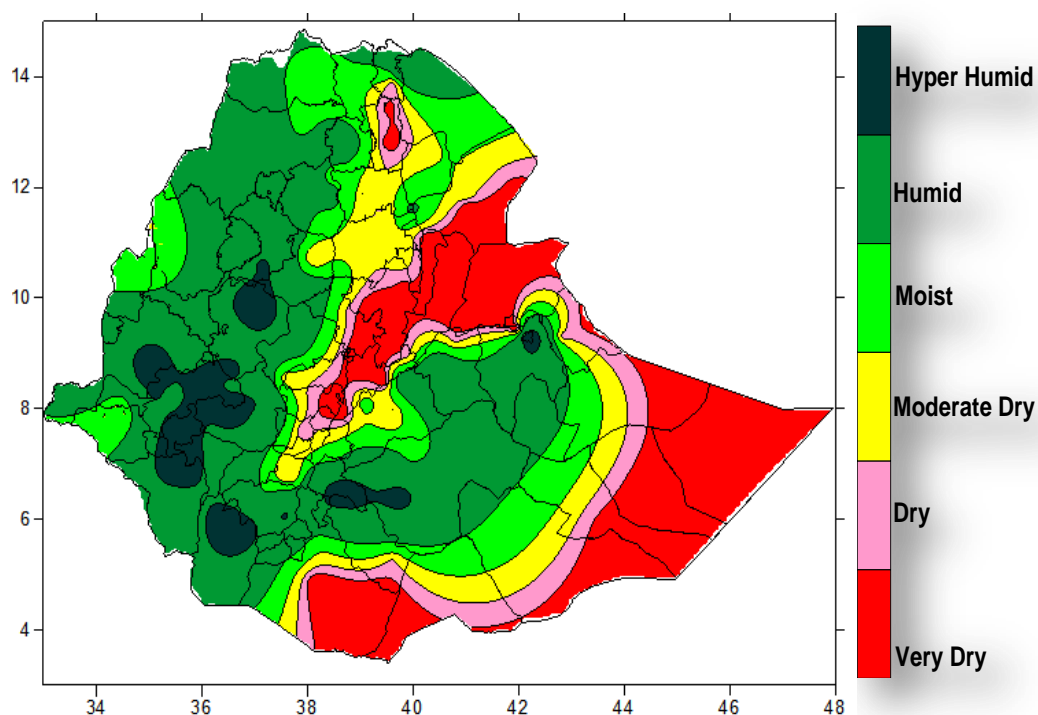


Fig. 3 moisture status for (11 – 20 May, 2024)

2. AGROMETEOROLOGICAL CONDITIONS AND IMPACT ON AGRICULTURE

2.1. VEGETATION CONDITION AND IMPACT ON AGRICULTURE

During the second dekad of May 2024, due to the relative strengthening of rain bearing weather systems better moisture has been experienced over Belg producing and rain benefiting areas particularly western half of the country, according to this increment the vegetation condition across the country exhibited good vegetation condition (Fig.4. NDVI and Rangeland WRSI in %) This condition might have positive impact to perform land preparation and planting for Meher long cycle crops as well as for perennial plants and availability of pastors and drinking water over pastoral and agro-pastoral areas.

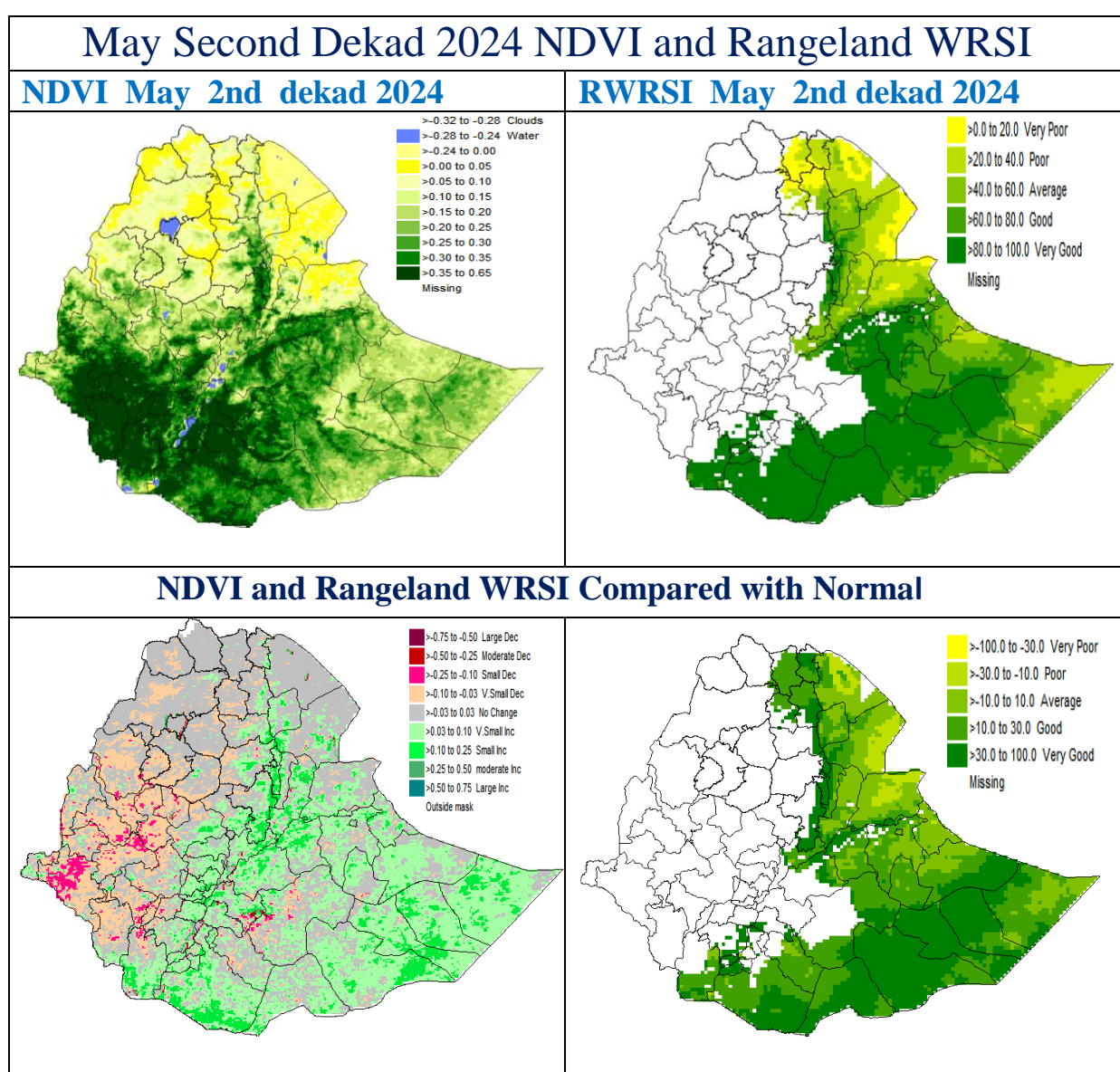


Fig.4. NDVI and Rangeland WRSI in % and Compared to Normal - May 11-20, 2024

2.2. EXPECTED WEATHER IMPACT ON AGRICULTURE DURING THE COMING THIRD DEKAD OF MAY 2024

In the coming third dekad of May 2024, the meteorological forecast information indicates that the seasonal rainfall activity is expected to continue over Belg growing and rainfall benefiting area of the country. This situation expect to improve moisture requirement of Belg and long cycle Meher crops found at different phases of growth, perennial plants, pasture and drinking water availability in pastoral and agro pastoral areas. Therefore, farmers and concerned bodies are advice to conserve available water efficiently and wisely use of moisture that will expect. However, the expected heavy fall on some places across the country would have cause flash flood and water logging on crops field in low lying areas. Thus, proper attention should be undertaken to minimize the risk in areas where there is no proper drainage system and low-lying areas making channel in order to reduce the effect of excess water. On the contrary the excess moisture might have positive impact on normally water deficit areas and water harvesting where that can be used in time of deficit.

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

The map displays the following regions and their associated stations:

- Tigray:** HU, AG, SH, MY, DBK, MTS.
- Afar:** D61, AS, SM.
- Amhara:** MTM, AK, GDR, DT, SUR, LL, SR, BA, GF, WT, CR, VB, WI, MM, GW, MS, EIT, US, SW, FC, AL, K, DB.
- B. Gumuz:** MIK, PW, DG, MOT, CH, LYB, DM, BE, AV, VE, B-G, ILJ, AI, GIB, TRK, KA, EJ, AR, J, AMB, VL, BU, DZ, IET, MT, AB, GL, MS, JJ, DH.
- Addis Ababa:** DMD, GM, ALG, GR, FTR, LG, DAL, JM, SK, HS, ZW, MR, RB, GH, DM, MIG, KM, YB, ML, KH, JJI, SW, MAD, BOR, HM, DL, BLT, SD, AM, MA, ABO, MA, DMD, GM, ALG, GR, FTR, LG, DAL, JM, SK, HS, ZW, MR, RB, GH, DM, MIG, KM, YB, ML, KH, JJI, SW, MAD, BOR, HM, DL, BLT, SD, AM, MA, ABO, MA.
- Gambella:** ABO, MA.
- SNNPR:** JJI, SW, MAD, BOR, HM, DL, BLT, SD, AM, MA, ABO, MA.
- Oromiya:** RB, GH, DM, MIG, KM, YB, ML, KH, JJI, SW, MAD, BOR, HM, DL, BLT, SD, AM, MA, ABO, MA.
- Somali:** GD.

Legend:

- Real Time Data Reporting Station (Green dot)
- Real Time and Phenological Reporting Station (Green dot with crosshair)

EMI Agro meteorology Ten day bulletin