

Early Warning Bulletin

November 20, 2023

EWR Directorate, EDRMC

www.ndrmc.gov.et

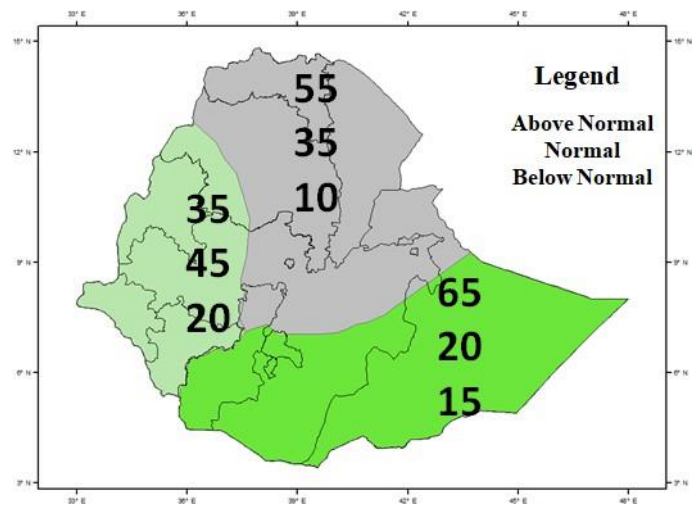


Based on the global, regional and local pre-season indicators, as well as, their dynamical/statistical predictions, the following conclusions can be drawn for the *Bega* climate outlook 2023.

- Above-normal to slightly near-normal temperatures are expected over the Eastern, Central, and Southeastern parts of the country.

- Above-normal rainfall performance is anticipated to dominate across the South and South-eastern.
- Thus, the Southern part of Somali, Oromia, and SNNPR regions will have above normal rainfall.
- Early onset of *Bega* and late cession will be expected
- Moreover, heavy rainfall and flash flood is likely to prevail over some pocket areas
- Similarly, much of Northern, Northeastern, Eastern, and Central Ethiopia will have above-normal rainfall (unseasonal rainfall).
- The Southwestern and Western portions of the country dominantly will receive normal rainfall with occasional heavy rainfall pattern.
- The Northwestern parts of the country are anticipated to be dominated normal rainfall /unseasonal/.

Rainfall Tercile probability for *Bega* 2023/24



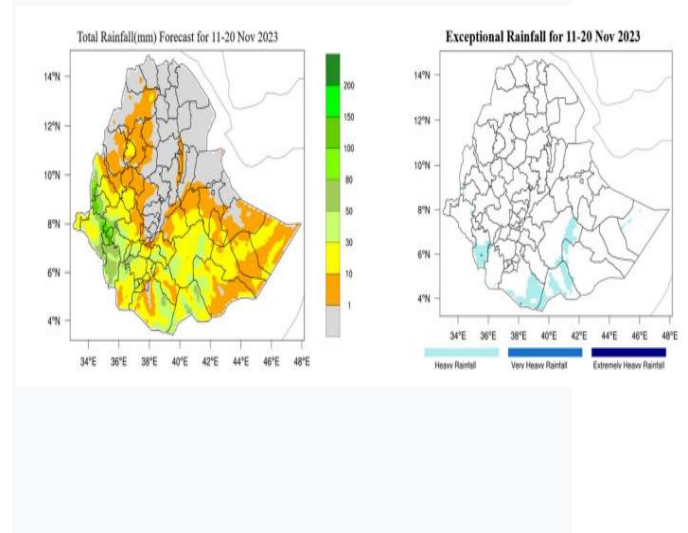
Source: EMI

I. Weather Outlook and Possible Impact for the Coming November 2023, amended with Second Dekade Forecast.

Under normal condition during the second ten days of November *Bega* dry, sunny and windy weather condition is dominate over most parts of the country. In relation to this night and early morning cold is frequently observe across isolated places of Northern, Northeastern, Eastern, Central and Southern high grounds of the country. In addition Southwest, South and Southeast parts of the country receive light to moderate amount of rainfall.

The forecast information indicated that, in the coming ten days of November 2023 meteorological phenomenon that creates favorable condition for occurrence of rain will continue to strengthen over areas which *Bega* is the second rainy season of the Southern and Southeastern parts of the country. Moreover Southwest, Western and Eastern parts of the country will have better feature based on the numerical forecast information indicatives. In view of that due to the strengthening of meteorological feature, especially in the Southwest and areas which *Bega* is the second rainy season of southern half, the rain will cover wide areas and have light to moderate amount of rainfall. On the other hand, in occasional days light to moderate amount of unseasonal rainfall will be over Central, Eastern and Northeastern parts of the country.

In general in the coming ten days in Oromia Region (all Zones of Wellega, Jimma, Illu Ababora, Buno Bedelle, West Arsi, all Zones of Bale and Guji, East and West Harerghe and Borena Zones), in Amhara Region (West Gojam, South Gonder, Bahir Dar Zuria and Awi Zones), Zones of Benshangul Gumuz, Sidama, South Ethiopia, South West Ethiopia and Somale Region, Hareri and Dire Dawa Administration will have normal and above normal amount of rainfall. Some places will get heavy amount of rain and might be cause flash flooding. In addition Zones of Gambella Region and Central Ethiopia Region, from Amhara Region North and South Wello Zone, East Gojam Zone, North Shoa, Central and North Gonder Zones, Addis Ababa, in Oromia Region all Zones of Shoa, in Tigray Region West and Northwest Zones and in Afar Region Zone 3, 5, 4 and 1 will get light to moderate amount of rainfall.



II. Areas needing attention based on the above seasonal and November 2023 second decade weather forecast given by EMI.

The anticipated normal and above normal amount of rainfall over Western and Southern half is favorable for the pasture and water availability particularly, pastoral and agro pastoral areas which are characterize Bega is second rainy season. Furthermore the rain contribute for availability of water storage for dams, ponds and reservoirs which water dams and reservoirs are there for hydropower and irrigation use. Accordingly the concerned body should advise to practice appropriate agronomic practices and water harvesting techniques to preserve water for long period of time.

On the other hand, the expected high probability of above normal amount of rainfall might be cause heavy fall and cause flash flood in some places, and also much amount of runoff in the upper catchment and over flow of river bank. Thus the concerned personnel should take appropriate measures accordingly in order to minimize the impact of adverse weather condition a head of time.

The anticipated light to moderate amount of rainfall in occasional days which is unseasonal rainfall over Central, Eastern and Northeastern parts of the country might have negative impact for crops which is ready for harvest across Meher crop growing areas. It might interrupt on

harvesting and post harvesting activities for Meher crop growing areas. Therefore farmers and the concerned bodies should take proper action ahead of time by harvesting dry crops and stored properly as much as possible to minimize the adverse impact.

The expected dominant Bega dry, sunny and windy weather condition during the second ten days of November 2023 over most parts of the country will have positive impact where crops are at maturing and ripening stage across Meher crop growing areas and also for harvesting and post harvesting activities where crops ready to harvest. Even though the expected light to moderate amount of rainfall including partial cloud coverage interrupted the harvest and post harvest activities in those areas, It has another advantage to minimize occurrence of frost particularly where areas which are affected by frost and contributes to balance the extreme dry weather condition. Therefore farmers and the concerned bodies should take proper action ahead of time to use this favorable condition.

As positive contribution, the light to moderate amount of rainfall might have benefit for the availability of pasture and drinking water as well as to satisfy water need of perennial crops, late growing stages of Meher crops and for Bega sown crops for the aforementioned areas. This therefore demands taking of appropriate measures ahead of time to wisely utilize the water obtained from the seasonal rain by using

different rain water harvesting techniques to resolve water shortage during dry period particularly in lowland areas.

More over the expected dry and windy weather condition would favor the occurrence of fire; thus it is recommended that appropriate precaution measures to be undertake in the process of fire use near dried crops that are ready for harvest, near harvested crops collected on the field and near barns in order to avoid the outbreak of fire emergency ahead of time.

III. Crop and livestock conditions and areas needing attention based on the Regional Situation Report

1. Crop condition

Sidama Region: Regarding 2015/16 Meher season production, 96,078 hectares are planned for major Meher-grown crops like wheat, teff, barley, maize, haricot bean, cabbage, potato, and sweet potato. As a result, 96,654 hectares were plowed, and 96,030 ha (99.95%) has been sown as well as 61,940 quintals of NPS, UREA, and Compost fertilizer as well as 81,460 quintals of improved and C2 seed varieties have been utilized. About, 313,969 males and 17,511 females, in a total of 331,480 farmers participated in this agricultural operation. In addition, vegetable and root crop production has been planned on 32,330 ha of land. As a

result, 30,147 (93.25%) ha were plowed and planted with potatoes, sweet potatoes, yam, and different vegetables, and 129,835 quintals of NPS, UREA, and Compost fertilizer as well as 9,719 quintals of improved and 81,460 quintals of C2 seed varieties have been utilized.

Southwest Ethiopia People's Region:

Regarding the 2015/16 Meher season production, grown crops are found at harvesting and grain-filling stages in lowland and highland parts of the region respectively. In addition, Bega season production has been started and from the planned 21,791 hectares, 2,595.5 hectares were sown in Dawro and Keffa Zones of the Region.

Oromia Region: According to the regional report, Meher season production has been found from the development to grain filling stages. Out of the planned 342,907 hectares of land, 348,893 hectares were plowed, and 348,893 ha (101.7%) sown in the East Bale Zone; from the planned 516,920 hectares, 527,427 hectares of land were plowed, and 527,427 (102%) hectares of land have been sown in the Bale Zone; from 209,972 hectares, 209,972 hectares of land were plowed, and 209,972 (100%) hectares have been sown in the Kelem Wolega Zone; out of

353,573 hectares, 353,375 hectares were plowed, and 348,215 (98.5%) hectares have been sown in Horo Guduru Zone; from 230,877 hectares 313,855 hectares were plowed, and 313,855 (136%) hectares have been sown in Buno Bedele Zone; from the planned 208,338 hectares 269,483 hectares were plowed, and 263,790 (126.6%) hectares have been sown in the Illubabor Zone; out of the planned 48,123 hectares 45,950 ha were plowed and 26,750 (55.58%) ha sown in Borena Zone; from the planned 125,582 hectares 112,166 hectares were plowed, and 106,295 (84.64%) hectares sown in East Borena Zone; from 416,432 hectare 429,528 hectares of land were plowed, and 429,528 (103%) hectares have been sown in East Hararghe Zone; out of 553,203 hectares 528,544 hectares were plowed and 528,544 (95.54%) hectares have been sown and harvested in North Showa Zone; from 411,879 hectares 421,274 hectares were plowed and 421,274 (102%) hectares have been sown in West Hararge Zone; out of 516,654 hectares 516,654 hectares were plowed and 515,323 (99.74%) hectares have been sown and harvested in East Showa Zone; out of 242,564 hectares 266,051 hectares were plowed and 261,622 (107.8%) ha have been sown in West Guji Zone;

out of 384,642 hectares 389,153 hectares were plowed and 387,077 (100.6%) ha have been sown and harvested in Guji Zone, out of 312,173 hectares 312,173 hectares were plowed and 305,626 (97.9%) hectares have been sown in West Wollega Zone; out of 436,876 hectares 545,748 hectares were plowed and 535,230 (122.5%) hectares have been sown in East Wollega Zone; out of 662,662 hectares, 758,576 hectares were plowed, and 758,567 (114.47%) hectares have been sown and harvested in Arsi Zone; out of 484,747 hectares, 484,747 hectares were plowed, and 448,887 (92.6%) hectares have been sown and harvested in West Arsi Zone; out of 674,985 hectares 861,252 hectares were plowed and 861,252 (127.6%) hectares have been sown in Jima Zone; out of 413,840 hectares, 413,840 hectares were plowed and 413,840 (100%) hectares have been sown in South West Showa Zone; and out of 746,044 hectares, 824,230 hectares were plowed and 824,230 (110.5%) hectares have been sown in West Showa Zone. Grown crops are found at development, flowering, grain-filling and harvesting stages in, East and West Hararghe, West Showa, Southwest Showa, Buno Bedela, Illubabor, Jima, East Wollega, Kelem Wollega, West Wollega, Horo Guduru

Wollega, West Guji, Borena, East Borena, Bale, and East Bale Zones. In addition, sowing operation has been completed in middle and lower altitude areas of the Guji Zone.

Amhara Region: For 2015/16 Meher season from the planned 4,937,194 hectares of land, 5,156,150 hectares were plowed, 4,717,751 ha (91.4%) sown, and 1,365,204 (29%) ha has been harvested in the Region. The rest not harvested crops are found at flowering, grain filling and harvesting stages.

SER: In 2015/16 Meher season from the planned 735,080 ha, 664,452 (90%) hectares were sown with cereal and horticultural crops in the region. However, a lack of adequate rainfall has happened and reduced sowing efficiency in the following Zones, Basketo (51%), Ari (57%), and Kora (69%).

Central Ethiopia Region: In 2015/16 Meher season from the planned 433,164 ha, 420,407 (97%) hectares were sown with cereal and horticultural crops in Gurage, Halaba, Hadiya, Silta, Kembata and Yem Zones as well as in Tembaro Special Woreda of the region. In most areas of the region grown crops are found at flowering and grain filling stages while some areas are started harvesting of

teff crop. However, the current rainfall in the region could have impact on matured crops so farmers should be advised to harvest matured crops and store in safe places.

Afar Region: Crops sown during the summer rain did not show the necessary growth and did not reach the level of production. Therefore, insufficient crop yields are expected in the region. On the other side, growing crops with irrigation farming has been found in good condition in Zone 3 and other agro-pastoral areas in the Region.

Dire Dawa city administration: The report sent from the city administration shows that Belg season-grown crops are found at development, flowering and grain-filling stages in, Biyo Awale, Wahel, and Jeldesa woredas. Whereas grown crops in Aliso Woreda have been faced with moisture stressed and the dried crops are now found at harvesting stages.

Gambella Region: Meher season grown crops like groundnut is found at harvesting stage in, Akobo and Gambela zuria woredas of Agnuwak Zone as well as sorghum is found at flowering and grain filling stages in Mejang and Neur Zones. In addition, a maize crop grown with recession

(residual moisture) farming is found at the germination stage in different areas of the Nuer and Agnuwak Zones of the region.

Benishangul Gumz Region: Meher season grown crops, such as maize, sorghum, teff, niger seed, and finger millet are found at grain filling and harvesting stages. Information received from the region shows that pre-harvest crop yield estimation is being conducted in the region.

2. Migratory pest condition

Oromia Region: In Bale Zone of Agarfa, Sinana, Gasera, Dinsho and Goba Woredas 85,141 hectares of wheat fields were infested by rust disease and controlled by chemical spraying. Furthermore, in Gasera, Gasera and Goba Woredas 6,700 hectares of crop fields are affected by Fusarium disease and 3500 hectares were controlled with chemical spray. Additionally, in Borena Zone, unidentified pest has been occurred on 5066 hectare of land.

Amhara Region: In the North Wollo Zone, Gidan Woreda, rust has damaged 708 hectares of wheat crops, in the North Shewa Zone, Menzlalo Woreda, 320 hectares and 1049 hectares in Gishrabel Woreda, the yellow rust has caused 50%

damage on 2778 farmers' crop fields. In addition, in North Wollo Zone, Lasta, Bugna, Meket and Gidan Woredas wheat rust has caused damage to crops and affected crop hectare could not be identified due to the security problem.

SER Region: In South Omo Zone fall armyworm has been occurred on 184 ha crop fields in Dasenech and Yangatom Woredas and control measure was taken on 32 ha with chemical spray and on 105 ha by traditional method. In addition, in Ale Zone, Armyworm infestation has been occurred on 7,512.25 hectares of crop fields.

Central Ethiopia Region: In Halaba, Wera Dijo Woreda, rust disease occurred on 13 hectares of wheat crops and damaged 1,653 hectares of crop lands. Additionally, migratory bird invasion was occurred on matured crops like wheat 2580 hectares, sorghum 317 hectares and finger millet 185 hectares in total 3082 hectares of crop fields are affected. It could not be completely controlled even though traditional methods of prevention were being used. In the same Zone at Wera woreda, 114 hectares of wheat, finger millet and teff fields were affected.

Afar Region: The information received from the Region shows that the maize crop is being damaged due to the occurrence of unidentified crop pest in four kebeles of Dulecha Woreda. Additionally, occurrence of fall armyworm has been reported in Hadelela and Telalak Woredas of the Region.

3. LIVESTOCK CONDITION

Livestock body condition, pasture, and, Water condition

Sidama: During the last summer months, in certain areas, there is a shortage of pasture and animals are dependent on crop residues instead of natural pastures, so the physical condition of animals is reduced. At the moment, there is enough rain in all the woredas of the region, so it has created a favorable situation for the supply of pasture, and water for animals.

Southern Ethiopian Region: The rains that are falling in most areas of the region have created favorable conditions for the supply of water for animals and the supply of fodder, but there is a threat to the supply of pasture and water in the Gofa zone due to the lack of rain in the lowland woredas.

SWEPR: It was found out from the regional report that the supply of animal fodder and water is close compared to the normal season.

Central Ethiopia: There is no significant problem in all areas due to the availability of animal fodder along with rainfall, pasture, and crop residues.

Oromia: The information obtained from the region indicates that the supply of water for animal grazing/fodder is sufficient in all areas and is improving.

Amhara: The report we received from the region indicates that there is a serious problem of animal fodder and water supply in the Kinfaz and East Belesa woredas of the central Gondar Zone and on Zukala, Bergele and Sehalala woredas of Wagehemra Zone, North Gondar Zone in Yeda, Kelemt and Janamora Woreda and North Showa Zone Berehat and Mida woredas.

Dire Dawa: Information received from the region indicates that there is no shortage of fodder for animals.

Harar: The region's data indicates that there is no shortage of animal feed and water supply in the region.

Gambealla: There is no problem with water supply for animals, but the large rivers that cross the region mean that the Baro Gilona and Akobo rivers are overflowing and flooding the pastures land.

Benishangul Gumuz: Information received shows that there is no problem of lack of fodder and water and the condition of animals is in good condition.

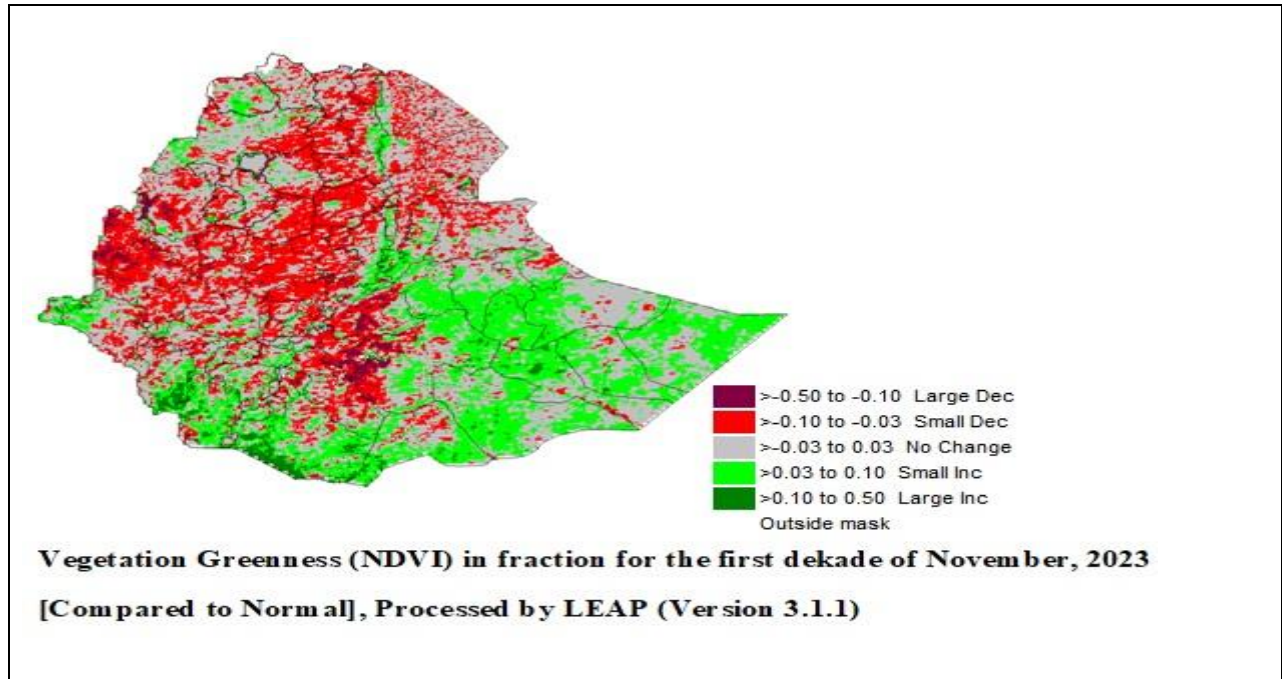
Livestock Disease Condition

Southern Ethiopia: In Gedio Zone of Wanago Woreda in Michile Girisa Kebele 33 sheep and goats and 21 cattle died in the **Black Leg disease**. As a result, 33 male-headed households and 2 female-headed households (45 males and 35 females) with a total of 80 family members lost their animals.

Amahara Region: In the Oromo Zone, Bati Woreda, in Fira and Chachaat kebeles 26 sheep and 43 goats died of **Peste des Petits Ruminants (PPR)** and **Pox** diseases, a sheep and goat disease and thus 2582 sheep and goats were vaccinated. In addition to this in South Wolo Zone, Delanta Woreda, **Peste des Petits Ruminants (PPR)** occurred in 40 sheep and goats and 31 sheep and goats died.

Annex 1

NDVI in fraction first decade of December 2023 compared to Normal



As can be seen from NDVI picture (1-10 November 2023 METEOSAT) small to large Vegetation Greenness decrement was observed over most parts of Amhara, most of Benshangul Gumuz, most parts of Central Ethiopia, most parts of Afar, Eastern half of Tigray, Central, Western and Southern highlands of Oromia, most parts of Sidama Region. And scattered decrement also observed over most parts of South Ethiopia, South West Ethiopia Region and parts of Northern Somale. Eastern Gambella, Western Amhara, Western and Central Tigray, Southern and Eastern Oromia, Southern Afar and Dire Dawa. On the other hand, small to large Vegetation Greenness exhibited in most places of Somale, parts of SE, parts of Western Gambella, parts of Southeastern SWE, few places of Western and Southern Afar, pocket places of Western and Southern Tigray, pocket places of Western and Eastern Amhara, parts of Southern and Eastern and also pocket places of Western and Central Oromia, Southern parts of SWEP, pocket places of Eastern Gambella, Sidama, CE, Dire Dawa and Benshangul Gumuz Region. In the rest parts of Northwestern, Northeastern, Northern, Western, Southeastern, Eastern and Southwestern partially and some areas of Central and Southern parts of the country experienced normal vegetation greenness as compared to that of the long term average of vegetation greenness.