

Early Warning Bulletin

June 20, 2023

EW&R Directorate, EDRMC www.edrmc.gov.et

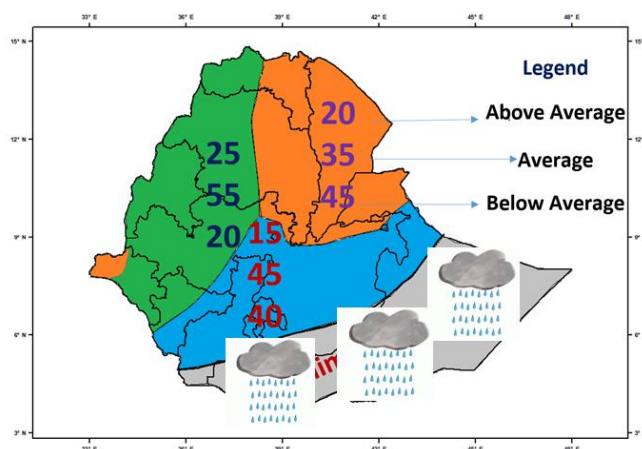


CLIMATE OUTLOOK FOR *KIREMT*, 2023

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 *Kiremt* climate outlook 2023.

- Most of the recent and prognostic products depicts that the occurrence of *EL NINO* episodes in the coming *Kiremt* 2023 and *IOD* tends to be positive phase.
- The seasonal rainfall onset will be early over Southwest portions and normal over much of the JJAS (*Kiremt*) rainfall benefiting areas.
- Dominantly, near-normal seasonal rain is expected over Southern and Southeastern parts of the country.
- Occasional heavy rains will occur during July and August may cause flood across flood prone areas including Cities and also landslide over isolated places.
- Early cessation from Central, Eastern and Northeastern portions of the country.
- Normal to below normal rainfall is expected over South Tigray, Afar, East Amhara and Eastern portions of the country.
- Moreover, West Tigray, West Amhara, Benishagul Gumuz, West Oromiya, Gambella and Southwestern Regions of Ethiopia will dominantly receive normal rainfall and they will get above normal rainfall over few portions
- Additionally, North Somali, Central, North/South and East Oromiya, Northern portions of SNNPR will dominantly receive normal rainfall.
- The expected *EL NINO* and positive *IOD* will benefit the South and Southeastern portions of the country. They will get rainfall in the coming August and September months.

Tercile probability for *Kiremt* 2023



Rainfall Probabilistic forecast for *Kiremt*, 2023

Source: EMI

1. Weather Outlook and Possible Impact for the Coming June, 2023 Forecast amended with the 2nd decade of June, 2023.

In the second ten days of June, rain-bearing meteorological aspects are getting stronger in the Southwest, West, Northwest and central parts of the country. On the other hand, dry and hot weather prevails in the North and Northeast, except for occasional moderate rains.

In connection with the fact that the meteorological aspects that contribute to the formation of kiremt rains in the next ten days are improving day by day; Forecast data indicates that there may be widespread rainfall and distribution in the Western half of the country.

In general in the coming ten days of June, 2023 in Oromia Region (Jimma, Buno Bedele, Ilu Ababora, East and West Wellega, Kelem Wellega and Horo Gudru Zones and all Zones of Shewa), East and West Harerge, West Arsi, Arsi and Zones of Bale, Addis Ababa, From Amhara East and West Gojam, North and West Gonder Zones, Awi Zone and Bahirdar Zuriya, from Tigray Region, Zones of West ,Northwest and Central, Zones of Benshangul Gumuz and Gambela Region, Zones of South West Ethiopia People Region, most Zones of SNNPR, Zones of Sidama Region, are likely to have mostly normal and sometimes there will be above normal amount of rainfall in some areas. Additionally, due to strong cloud development heavy fall will occur in some places.

In contrast, from Oromia Region Northern part of Borna and Gujii Zones, from Somali Region Fafen Zone, Dire Dewa city, Hareri Region, from Amhara Region North and South Wollo, Zones of Waghimra and North Shewa Zones, Eastern and Southern Tigray Zones, from Afar Region Zone 5 will receive light rainfall in their few places as Forecasts data indicates.

In the other way Zones of Somali Region, from SNNPR South Omo and peoples' of Segen Zones and most part of Afar Region will stay dry.

On the other hand, the daily maximum temperature will be 35 to 40 degrees Celsius in the Northeast and Eastern parts of the country, according to the forecast.

Areas needing attention based on the above seasonal and monthly weather forecast given by EMI.

The anticipated normal and above normal amount of rainfall during *Kiremt* 2023 (June-September) over most parts of *Meher* crop growing areas of the country will favor seasonal agricultural activities. Besides Northwestern, Western and Southwestern parts of Ethiopia are expected to receive normal tends to above normal amount of rainfall during the season. Northeastern, Eastern, Central and Southern parts of the country will expect to have normal to below normal amount of seasonal rain. Furthermore the expected early onset across Southwestern portion will contribute timely land preparation and sowing activities in the areas. This situation will be advantageous for *Meher* agricultural activities as well as favor the normal growth and development of perennial crops, early sowing

long cycle and the availability of pasture and water need in the mentioned areas.

The expected normal tending to above normal rainfall as well as occasional occurrence of heavy fall over *Kiremt* rain benefiting areas of Gambella, Benishangul Gumuz, Amhara, Tigray, Western, Eastern, Central and Southern high grounds of Oromia, SNNPR, Afar, Dire Dawa, Hareri and Northern Somali Region during the season would result flash flood as well as overflow of rivers. And also the pressure on soil moisture might be triggering the occurrence of land slide in sensitive areas. Therefore the concerned personnel should take appropriate measure like maintenance of flood protection, flood diversion and river training activities including awareness rising, particularly over flood prone low-lying areas and near river banks to save lives and property ahead of time. Likewise, close monitoring is essential for dams and reservoirs which are found in areas where above normal rainfall is expected during the coming *Kiremt* 2023.

In addition excessive rainfall in some areas cause water logging problem around water retention areas might be possible in areas with poor drainage system. Therefore, responsible bodies need to work on possible water drainage techniques ahead of time in order to

minimize the effect of excess water over farm land.

Furthermore areas which have high probability to receive normal and above normal amount of rainfall might cause water born human diseases like AWD Outbreak after flood occurrence due to much amount of rainfall and occasional occurrence of heavy falls, as a result of poor sanitation and improper use of contaminated water for drinking and also in malaria prone areas malaria outbreak is likely due to favorable climate condition. To minimize the adverse impact of this situation, the concerned personnel should create awareness for community ahead of time.

On the other hand the expected normal to below normal amount of seasonal rain over Northeastern, Eastern, Central and Southern parts of the country might have negative impact on crop growing period in some areas. And also the expected early cessation from Central, Eastern and Northeastern portions of the country also will have negative impact might be where crops are at late maturing stage. Therefore the concerned personnel should take early appropriate measure for seed selection, input utilization and other agricultural activities as early before seasonal activities started.

Though, Southern and Southeastern parts are close to climatologically dry, the expected EL NINO and positive IOD will benefit the South and Southeastern portions of the country. So they will get rainfall in the coming August and September month. This situation contributes the availability of pasture and drinking water over pastoral and agro pastoral areas of the above mentioned Zones. Therefore the concerned personnel should take appropriate measure a head of time to exploit the expected moisture by using different rain water harvesting techniques. According to the EMI forecast there will be above normal rain fall during the next ten days some parts of Oromia, Amhara, Benishangul Gumuz Gambela Region, SWEPR and SNNPR will receive above normal amount of rainfall .Therefore the concerned personnel should take appropriate measure ahead of time.

2. Crop and livestock condition based on the weekly Regional Situation Update Report

2.1. Crop Condition

SNNPR: Regarding 2015 *Belg season* production, 969,792 hectares of land have been planned to be cultivated with different annual and horticultural crops. As a result, 1,014,622 hectares were plowed, and 1,014,622 (104.6%) hectares of land were sown from the plan until

now. However, the Belg rain was shortened, and moisture stress occurred during this week in the following Zones: South Omo, Konso, and Gofa Zones, as well as in Derashe, Ale, and Burji special Woredas. Therefore, moisture retention activity should be conducted in these moisture-stressed areas to complete the growth of the growing crop, which is found at the flowering and grain-filling stages.

Sidama Region: According to the Regional report, in the 2015 *Belg season*, 64,998 hectares of land (60,882 hectares of maize, 430 hectares of sorghum, and 3,686 hectares of haricot bean) are planned to be cultivated. Until the end of this week, 58,451 hectares (89.9%) of the land were plowed, and 57,463 hectares (88.4%) of land were covered with maize, sorghum, and haricot bean seeds. In this agricultural operation, 204,232 males and 18,139 females took part, for a total of 222,371 farmers, according to the agricultural office report.

Moreover, in 2015 *Bega season* irrigation production, 54,131 hectares were planned, out of which 51,971 (96%) hectares of land were plowed and 49,350 (91.17%) hectares were sown from the plan in the Region. The grown wheat crop is found at the grain filling and

harvesting stages. In this agriculture operation, 185,623 males and 25,069 females, for a total of 210,692 farmers, took part.

Southwest Ethiopia People's Region: In *Bega season* irrigation production, 48,092 hectares of wheat and other crop production were planned in the Region. As a result, 50,749.67 (105.52%) hectares were plowed, and 49,374.65 (102.67%) hectares were sown in the Region. In addition, 304,092.63 hectares of land have been plowed, and 197,758.25 (65%) hectares were sown in *Belg season* production in Kefa, Bench Shako, Dawro, Sheka, West Omo, and Konta Zones of the Region. Regarding input utilization, 21,609.625 quintals of UREA and NPS fertilizer as well as 2,114.6 quintals of improved seed have been supplied and used to cultivate the above-mentioned area in the Region.

Oromia Region: According to the Regional report, *Meher season* production has started and is found at the land preparation and sowing stages. Out of the planned 115,063 hectares of land, 135,213 hectares were plowed, and 135,213 (117.5%) hectares of land have been sown in the East Bale Zone; from the planned 218,522 hectares, 220,854 hectares of land were plowed, and 220,854

(101%) hectares have been sown in the Bale Zone; from 209,972 hectares, 179,655 hectares of land were plowed, and 82,520 (39.3%) hectares have been sown in the Kelem Wolega Zone; out of 317,268 hectares, 231,695 hectares were plowed, and 77,950 (24.57%) hectares have been sown in Horo Guduru Zone; from 230,877 hectares 201,122 hectares were plowed, and 70,008 (30.32%) hectares have been sown in Buno Bedele Zone; from the planned 133,485 hectares 142,750 hectares were plowed, and 134,625 (100.85%) hectares have been sown in the Illubabor Zone; out of 96,290 hectares 96,166 hectares were plowed, and 96,166 (99.87%) hectares have been sown in the Borena Zone; from the planned 111,732 hectares 110,754 hectares were plowed, and 110,754 hectares (99.14%) have been sown in the East Borena Zone; from 65,258 hectare 65,258 hectares of land were plowed, and 65,258 (100%) hectares have been sown in East Harerge Zone; out of 553,203 hectares 453,626 hectares were plowed and 71,916 (13%) hectares have been sown in North Showa Zone; from 50,070 hectares 49,258 hectares were plowed and 47,814 (95.5%) hectares have been sown in West Hararge Zone; out of 516,654 hectares 444,209 hectares were plowed and 91,855 (17.8%) hectares have been sown in East Shewa Zone; out of 171,453 hectares 184,848

hectares were plowed and 184,704 (107.7%) hectares have been sown in West Guji Zone, out of 312,173 hectares 113,113 hectares were plowed and 60,700 (19.4%) hectares have been sown in West Wollega Zone; out of 436,876 hectares 402,213 hectares were plowed and 178,318 (40.82%) hectares have been sown in East Wollega Zone; out of 97,573 hectares 97,117 hectares were plowed and 96,322 (98.72%) hectares have been sown in Guji Zone; out of 662,960 hectares, 618,436 hectares were plowed, and 76,451 (11.53%) hectares have been sown in Arsi Zone; out of 402,789 hectares, 244,747 hectares were plowed, and 75,968 (18.86%) hectares have been sown in West Arsi Zone; out of 578,971 hectares 576,433 hectares were plowed and 275,142 (47.52%) hectares have been sown in Jima Zone; out of 413,840 hectares, 359,966 hectares were plowed and 68,372 (16.52%) hectares have been sown in South West Showa Zone; and out of 746,044 hectares, 707,259 hectares were plowed and 223,128 (29.91%) hectares have been sown in West Showa Zone.

Amhara Region: For the 2015 *Belg* season, 208,278 hectares were planned for cultivation. As a result, 227,130 (109%) hectares were plowed and 210,862 (101.24%) hectares have been sown, and the growing crops are found at development, flowering, and grain filling

stages. Regarding 2015/16 *Meher* production, 4,973,194 hectares were planned, 3,588,610 (72.2%) hectares of land were plowed, and 563,201 (15.7%) hectares were sown in different areas of the Region.

Gambela Region: According to the Regional report, for *Meher season* production, land preparation, sowing, and weed control operations have been started and continued on maize and sesame crops in Agnuwak Zone of Dima, Abobo, and Gambela zuria Woredas, and Majang Zone of Godera and Mengish Woredas. However, *Meher* season production activities have been interrupted due to rainfall shortages in the rest of Agnuwak and Neur Zone Woredas.

Benishangul Gumuz Region: About the 2015/16 *Meher season production*, land preparation and sowing of long-cycle crops like sorghum, maize, and groundnut have been started and continued in the Region.

Harari Region: According to the Regional report, 98% of maize, sorghum, and groundnut crops have been sown according to the plan in *Meher season* production.

Dire Dawa city administration: The report sent from the city administration showed that of the planned 13,604 hectares, 11,669

(85.7%) hectares have been sown and found at germination and development stages in Aliso, Biyo Awale, Wahel, and Jeldesa Woredas, till the end of this week.

Afar Region: The report sent from the Region showed that the growing crops like onion, tomato, pepper, and maize crops are found at the development and harvesting stages in Zone 3 and Zone 5 Woredas of the Region.

- o There was no information on agricultural activities from the Tigray and Somali Regions during this period.

2.2.Migratory Pest Condition

SNNP Region: *fall armyworm* has occurred on 91 and 300.5 hectares in Gofa and Konso Zones, respectively. Chemical and traditional control measures have been taken on 300.5 hectares in the Konso Zone; however, pest control operations have not started yet in the Gofa Zone. In addition, *African armyworm* has occurred on 2,658 and 8 hectares in the Silte and Konso Zones, respectively. Control measures were taken on 2,026 hectares by using chemicals and on 160 hectares by the traditional method in Silte Zone, as well as on eight hectares by chemical spray in Konso Zone.

Southwest Ethiopia People's Region: The information received from the Region shows that a *fall armyworm* has occurred in the Keffa Zone on 1749.125 hectares. A control measure was taken on 1398.75 hectares using chemical and traditional methods. In addition, the same pest has occurred on 1,230 hectares in the Dawro Zone of Zaba Gazo, Gena, and Tercha Zuria Woredas in twenty-five kebeles, and control measures were taken on 1000 hectares by the traditional method and on 230 hectares by chemical spray.

Oromia Region: In Arsi Zone 9 Woredas of 75 kebeles, *fall armyworm pest* has occurred on 21,956 hectares of maize and sorghum crops, and control operations were done on 1,114 hectares by chemical spray. The same pest occurred on 3996.3 hectares in the Borena Zone of Aleweya, Miyo, Golmel, and Teltela Woredas and also 2,890 hectares of maize crop was affected in the Bale Zone of the Dolo Mena, Gura Damole, Harena Buluk, and Berbera Woredas. Control efforts were implemented on 690 hectares using chemical spray and on 2000 hectares using traditional methods in Bale Zone. Furthermore, in Arsi Zone 5 Woredas *beetle* occurred on 15,911 hectares of grazing land, and a control measure was taken on 12,301 hectares.

Amhara Region: In the North Showa Zone of Afrata Gidm and Tarma Ber Woredas, the *African armyworm pest* has occurred on 3,557 hectares of maize and sorghum crops, and control measures were taken on 3,533 hectares. The same *pest* has occurred on 7,654 hectares of finger millet crop and grazing land in the North Wollo Zones of Raya Kobo and Habru Woredas. In addition, *fall armyworm* and *African armyworm pests* have occurred on 2,736 hectares of maize and sorghum crops in Dewa Chefa, A/Fursi, and Bati Woredas of the Oromo Zone of the Region, and chemical and traditional control measures were conducted.

Dire Dawa City Administration: The report sent from the city administration showed that *African Armyworm* has occurred in 17 kebeles of Biyo, Awale, and Jeldesa Woredas, and control measures are being conducted by using a chemical spray.

Harari Region: According to the Regional report, *armyworms* have been seen in fewer numbers in some areas of the growing maize crop.

Afar Region: The report sent from the Region showed that a crop disease infestation has occurred on the growing onion crops in Dulesa Woreda of the Region.

- Monitoring data shows that there is no incidence of crop pests in the rest of the country's Regions and administrations, except for the Tigray and Somali Regions, where data was not sent at the mentioned time.

Advisory on crop diseases

In some Meher-producing areas of the country, the rain performance becomes erratic and creates a favorable condition for the outbreak of crop disease and insect pests during this month.

Therefore, surveillance and follow-up should be strengthened on crop disease and insect pest occurrences, and the necessary logistics supply should be facilitated in advance in areas where there is a favorable weather conditions to crop disease and insect pest occurrence.

In addition, control measures should be strengthened by coordinating the required technical support and input supply in the formerly outbreak-reported areas

3. Livestock Condition

3.1.Livestock Pasture and Drinking Water Condition

SNNPR: Since it had been raining in South Omo in the last weeks, there is no serious problem in the condition of most of the

animals' fodder, pasture, and water, although the report indicates that if the lack rain continues with similar condition of this week, the animal movement from place to place will start.

In Burji Special Woreda, after falling of Belg rain pasture and water condition is improving in some of the kebelles. Regarding the situation of pasture and fodder supply in all Halaba Zone woredas animals have been using the dry fodder obtained from crop residues which is start diminishing by now, but since the grazing land is improving animals start sing pasture grass. In this zone, grass has started to grow, thus the animal feed situation is improving and similarly, there is water in the water supply that has been absorbed by the ponds due to the rains that have fallen in the last few weeks. We believe that the current rain conditions in Wolaita Zone will be better than in the past. In the same way, rivers and ponds were drying up in Hulem before, but now it has been seen that they are recovering from the rain. Although the supply of animal feed in Hadia zone is deteriorating, it is low compared to normal and water supply is not a problem in all woredas. In Konso zone, there is no problem with the supply of fodder and water as the spring rains have been sufficient in the last few weeks.

Sidama Region: Belg rains are falling in all

woredas of the region, and it has created favorable conditions for animal grazing and fodder supply. As all the woredas have received low to moderate rainfall in the last week, there is currently no problem in the supply of drinking water for animals.

Amhara Region: In most areas of the region, the supply of animal fodder and drinking water is in a stable condition, but in South Gondar 6 woredas (Tach Gaint, Lay Gaint, Dera, Abnat, Mekehwana Sedmuja), Central Gondar 2 woredas (Kinfaz in Gela and East Balsa), a report sent to us shows that there is a problem with water and fodder for animals. Thus, in the areas where there is a shortage of drinking water and fodder for animals, Kinfaz and East Balasa in central Gondar and Mekewa Woreda of South Gondar Zone have showed a low animal body condition. In other areas of the Amhara region, the status of livestock is medium in average.

SWEPR: According to a regional report in the region, the supply of animal fodder and water is showing an improvement in most of the areas compared to the normal season and it is adequate by now.

Oromia Region: The report of the region indicates that in woredas of East Bale Zone such as Dawe Serar, Dawe Kechan, Rayitu, Lege Hida and Sawena there is scarcity of

pasture and also there is not enough water at present for the livestock. Other than this, the information obtained from the region indicates that the water supply for animal grazing/fodder is improving and is at a good level.

Harar Region: according to report from the region there is no report of shortage of pasture and water in the remaining regions and administrations.

Dire Dawa town: Since the Belg rain started on time with reference-to-reference year, availability of Water and pasture is on good level and hence there is no shortage of water and pasture.

B/Gumuz Region: Regarding the supply of animal fodder and drinking water, it has been reported that there is no shortage of fodder and water due to the condition of rain are good, so that the condition of animals is in good condition.

Afar Region: In the first week in Zone 5 in Dewe Woreda, the condition of pastures and livestock has not improved due to the lack of rain. But in the week of this month, animal grazing/fodder and water supply is in good condition in all woredas. It has been seen that it is at a good level due to the good rains. Due to this, there is no shortage of pasture for animals and the pastures are in good condition

due to the Belg rains and the water supply is also in good condition. It is also stated that the status of animals is at a good body condition level.

Somali Region: At present, the supply of water and pasture is good in all woredas of the region. Due to the availability of pasture and water, the body condition of animals is said to be very good, and the information received from the region indicates that there is no migration from the districts of the region.

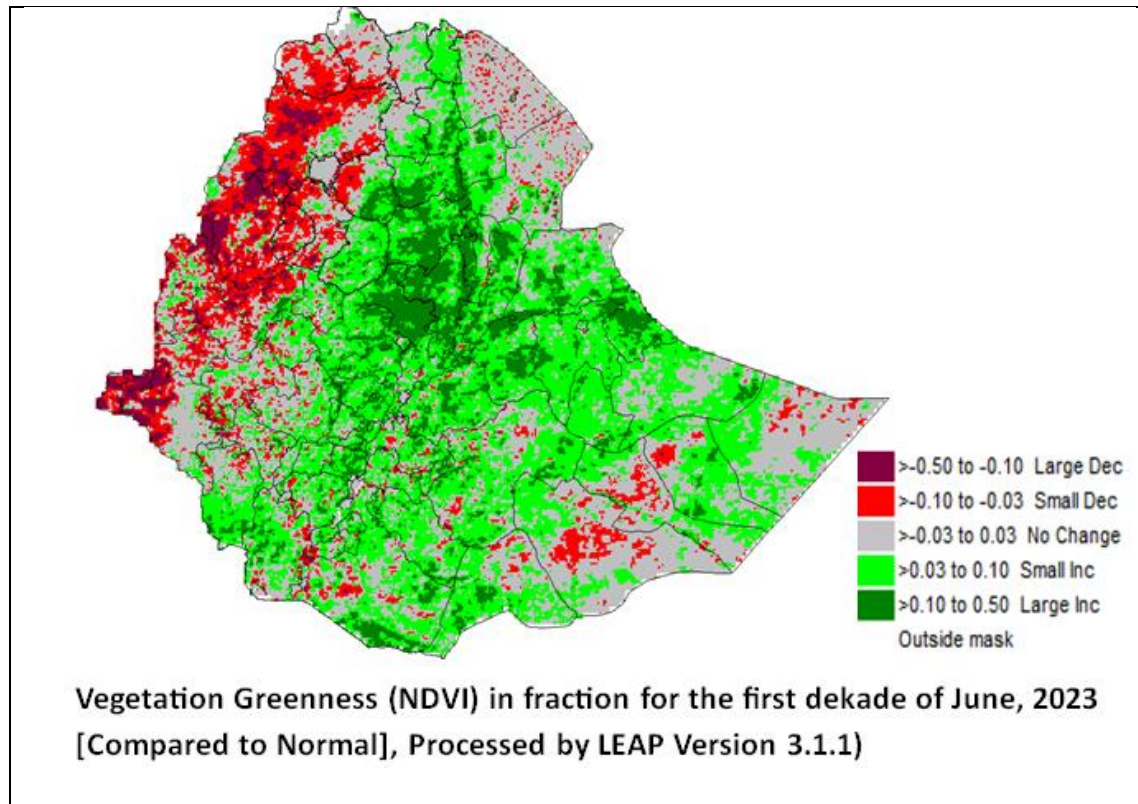
administrations, except Tigray region from which information was not available in the mentioned period

3.2. Livestock Disease Outbreak Condition

SWEPR: Anthrax Disease occurred in Bench Sheko Zone, in Sheko Bench Meskeram Sis Kebelle and one cattle died of it. Thus about 2500 doses of vaccine were administered for the animals to control the disease.

- o Monitoring data from the regions indicate that there is no report of animal disease outbreak report in the all regions

Annex



As can be seen from NDVI picture (1-10 June, 2023 METEOSAT) below normal Vegetation Greenness (small to large decrement) was observed in most parts of Western half of Amhara, in most parts of Benshangul Gumuz Region, parts of Western Gambella, parts of Western Tigray, scatter decrement in South and Southeastern Somali, in Northeastern Afar, pocket areas of Western, Central and Southern Oromia and in pocket areas of Sidama, SNNPR, SWEP, and in Eastern Tigray Region. On the other hand, small to large increment vegetation greenness exhibited in Eastern half of Amhara, most parts of Oromia, SNNPR, all parts of Harari, Dire Dawa, most parts of Northern half and partially in Southern half of Somali, in most parts of Western and Southern half of Afar, most parts of Sidama and Southern part of SWEP, parts of Eastern and Southern Tigray Region, scatter increment in Eastern half of Gambella and pocket of Benshangul Gumuz and. The rest part of the country experienced normal vegetation greenness as compared to that of the long term average of vegetation greenness.