

Summary

The first dekad of July (1-10) 2016 is presented in this edition of the dekadal agrometeorological bulletin. Rainfall activities were observed to have increased across the country with highest rainfall amounts recorded over Eket, Benin, Uyo and Ondo in one rain-day (199.9mm, 111.0mm, 97.6mm, and 97.2mm). Normal to deficit rainfall anomaly was observed in most parts of the country, except some parts of the north-east, central and the South which recorded surplus rainfall anomalies. The distribution of soil moisture index showed normal to surplus moisture condition across the country except for cities in and around Yelwa, Katsina, Kano, Potiskum Gombe, Bida, Ado Ekiti, Oshogbo, Ijebu Ode, and Ibadan which experienced deficit conditions. Maximum and minimum temperature ranged between 26.0°C to 35.3°C, and 17.9°C to 25.7°C. Warmer than normal maximum temperature anomalies were observed in most part of the country. The Inter tropical discontinuity (ITD) is expected to continued its northward movement to attain a position of about 17.5°N to 18.5°N during August. Harvesting of maize, tubers and vegetables continues in the central and southern parts of the country. Planting of millet, sorghum and rice is expected to continue in the northern and some part of central states.

1.0 Rainfall Pattern

The observed rainfall amount, rain-day, available soil moisture and their departures from the 30-year average during the first dekad of July, 2016 are discussed in this section.

1.1 Rainfall Amount

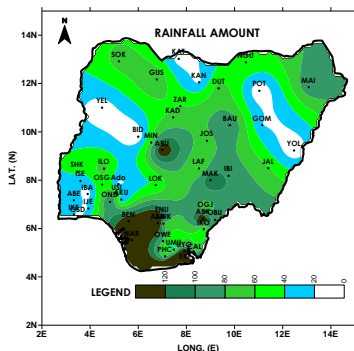


Fig 1: Rainfall Amount (mm)

Figure 1 shows the observed rainfall amount measured over the country for the 1st dekad of July 2016. Highest rainfall amounts were recorded over Eket, Benin, Uyo, Ondo and Markurdi in one rain-day (199.9mm, 111.0mm, 97.6mm, 97.2m, and 90.6mm respectively). Most stations across the country recorded moderate to heavy rainfall amount.

With increasing rainfall across the country, farmers are encouraged to continue intense agricultural activities so as to obtain maximize productivity during the short growing season.

1.2 Rainfall Departure.

Figure 2 shows the rainfall anomaly during the 1st dekad of July, 2016. Generally, some states in the country had rainfall above and below their long term means. However, above normal rainfall amounts were experienced in and around Maiduguri, Nguru, Bauchi, Jalingo, Gusau, Abuja, Markurdi, Ikom, Asaba and Eket.

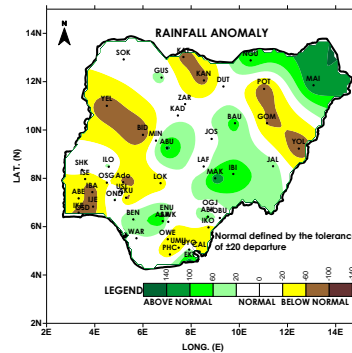


Fig 2: Rainfall Departure

1.3 Number of Rain Days

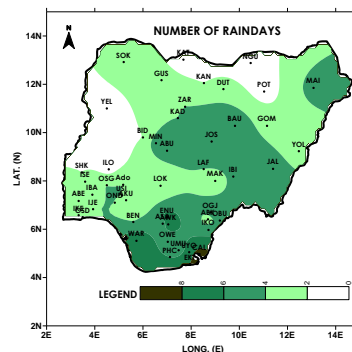


Fig.3: Rain- Day

The number of rain days is shown in Fig. 3. During the dekad, 1-9 rain-days were recorded, with the highest number of rain-days over the coast of the south-south. The south west and its inland recorded between 2-8 rain-days while the northern states had between 1-6 rain-days.

1.4 Soil Moisture Index

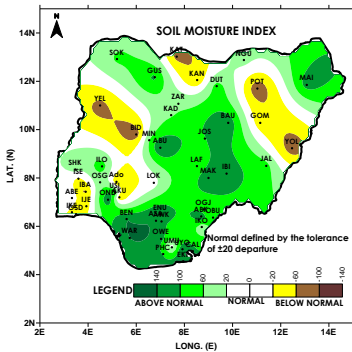


Fig 4 Soil Moisture Index (SMI).

The distribution of soil moisture condition across the country is shown in figure 4. Most parts of the country had normal to above normal soil moisture condition during the dekade except cities in and around Gombe, Potiskum, Kano, Katsina, Yelwa, Bida, Ado Ekiti, Ijebu ode, Oshogbo and Ibadan that were in deficit soil moisture condition.

2.0 Temperature Trend

This section highlights the maximum and minimum temperature trends across the country and their departures from 30-year average during the dekade.

2.1 Maximum Temperature Trend

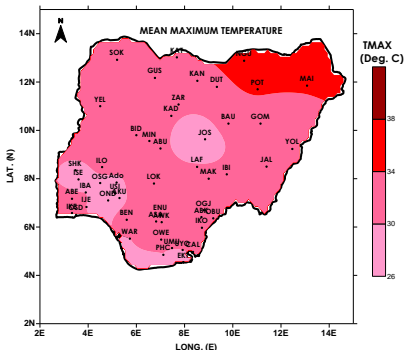


Fig.5: Mean Maximum Temperature

Fig.5 shows mean maximum temperature for the dekade. Observed temperatures ranged between 26.0°C and 35.3°C. Highest temperature was recorded over Nguru (35.3°C). Temperature increased northwards.

2.2 Maximum Temperature Departure

Maximum temperature anomaly across the country is shown in Fig.6. Warmer than normal temperature departure were observed over most parts of the country. Similarly, positive temperature anomaly was recorded over Abakaliki (3.4°C) with lowest departure observed over Eket (-0.5°C).

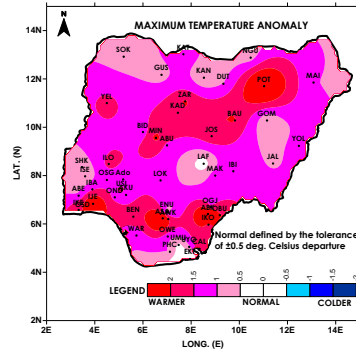


Fig. 6: Maximum Temperature Anomaly.

2.3. Minimum Temperature

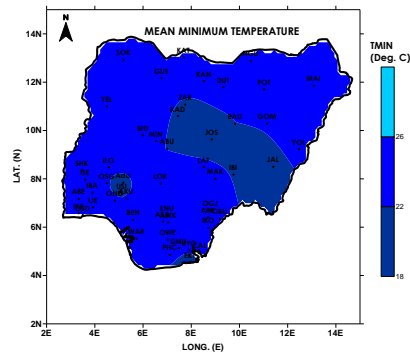


Fig.7: Mean Minimum Temperature

Mean minimum temperature is shown in Fig. 7. The observed mean minimum temperatures range from 17.9°C to 25.7°C. The lowest was observed over Jos (17.9°C).

2.4 Minimum Temperature Departure

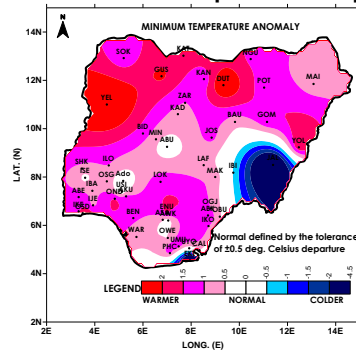


Fig.8: Mean Minimum Temperature Departure

Minimum temperature departure is shown in Fig.8. Most parts of the country experienced warmer than normal condition except areas in and around Jalingo, Abuja, Eket, Owerri, Ibadan and, Usi-Ekiti which had normal to colder than normal minimum temperature anomaly.

3.0 Vegetation Conditions

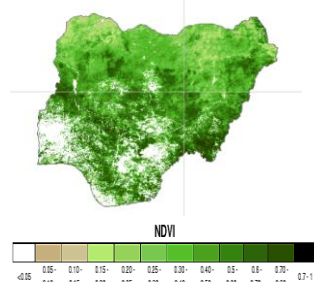


Fig.9: Normalized Difference vegetation Index (NDVI)

Fig.9 shows the Vegetation condition across the country. Most parts of the country had moderate to thick vegetation, while satellite could not capture the condition of south-west areas.

4.0 Weather/Agricultural Outlook for 2nd dekad (11-20), July, 2016.

4.1 Weather Outlook

Further northward migration of the Inter-Tropical Discontinuity (ITD) is likely to attain a position between 17.5 and 18.5°N during August 2016.

South westerly winds are expected to prevail over the entire country which in turn is expected to give rise to increased rainfall activities across the northern flank. Similarly, temperatures are anticipated to decrease across the country. This situation is expected to increase soil moisture condition favouring more agricultural activities.

4.2 Agricultural Activity

Harvesting of vegetables and some tuber crops are expected to continue in the central and southern parts of the country. Planting of some selected crops is also expected to continue across the country while the far North is expected to commence rain-fed agriculture during the next dekad.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

| STATION | RAINFALL | RAINDAY | PET | TMAX | TMIN | DD | RADIATION |
|-----------|----------|---------|------|------|------|-------|-----------|
| ABEOK | 40.4 | 4 | 35.4 | 30.9 | 24.3 | 195.7 | 14.7 |
| ABAKILUKI | 162 | 3 | 42.8 | 33.2 | 24.0 | 206.1 | 17.4 |
| ABUJA | 146.9 | 5 | 39.8 | 30.7 | 21.9 | 182.7 | 16.9 |
| BENIN | 145.5 | 4 | 36.1 | 30.6 | 23.7 | 191.4 | 15.1 |
| CALABAR | 78.4 | 9 | 37.0 | 30.5 | 23.2 | 188.3 | 15.5 |
| IBADAN | 10.5 | 3 | 36.1 | 30.0 | 22.9 | 184.7 | 15.3 |
| ISEYIN | 23.5 | 4 | 33.5 | 28.6 | 22.3 | 174.6 | 14.4 |
| KADUNA | 62.2 | 4 | 40.1 | 30.7 | 21.5 | 181.0 | 17.1 |
| KANO | 15.8 | 2 | 41.5 | 32.5 | 23.2 | 198.3 | 17.1 |
| KATSINA | 10.1 | 1 | 42.5 | 33.6 | 24.1 | 208.6 | 17.2 |
| LOKOJA | 37.9 | 2 | 37.9 | 31.9 | 24.4 | 201.5 | 15.5 |

| | | | | | | | |
|---------|-------|---|------|------|------|-------|------|
| MAKURDI | 119.9 | 3 | 38.6 | 31.6 | 23.8 | 196.9 | 16.0 |
| OWERRI | 80.4 | 5 | 35.9 | 30.4 | 23.5 | 189.3 | 15.0 |
| PHC | 67 | 6 | 33.6 | 30.0 | 23.8 | 188.6 | 14.1 |
| SOKOTO | 68 | 3 | 40.8 | 33.6 | 24.7 | 211.4 | 16.5 |
| ZARIA | 60.6 | 4 | 40.5 | 30.9 | 21.6 | 182.7 | 17.2 |

Note:

Rainfall (mm)

PET= Potential Evapotranspiration (mm/decade)

TMAX = Maximum Temperature (°C)

TMIN = Minimum Temperature (°C)

GDD= Growing Degree Day (day)

RAD = Radiation (MJ/m²/day)

Kindly send feedback to:

The Director-General/CEO,

Nigerian Meteorological Agency (NiMet),

National Weather Forecasting and Climate

Research Centre, NnamdiAzikiwe International

Airport, PMB 615 Garki, Abuja.

E-mail: agrometbulletin@nimet.gov.ng; NiMet WEB SITE: www.nimet.gov.ng

Phone: +2348038620950, +2348036040765