

Agro-meteorological Bulletin No.27, Dekad 3, September (21-30) 2017

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Summary

The agrometeorological bulletin for 3rd dekad of September, 2017 shows significant rainfall amount was recorded across the country and the highest rainfall total was recorded at Umuahia (213.4mm). The rainfall distribution showed reduction (0-9) of rain-days across the country. The rainfall anomalies show most parts of the country experienced normal to above normal rainfall anomalies. The highest mean maximum temperature was recorded at Nguru (37.2°C) while the mean minimum temperature was observed at Jos (16.9°C). The maximum temperature anomaly revealed that most parts of the country experienced normal to warmer than-normal day time temperature anomalies. The northward movement of (ITD) is expected to continue its southward retreat with mean position of 13.5N. Rain fed agriculture is expected to continue across the country. Farmers are advised to consult NiMet Seasonal Rainfall Prediction (SRP) for seasonal rainfall distribution and cessation dates.

1.0 Rainfall Pattern

This section highlights the observed rainfall amount, rain-day, available soil moisture and their departures from normal for the 3rd dekad of September, 2017.

1.1 Rainfall Amount

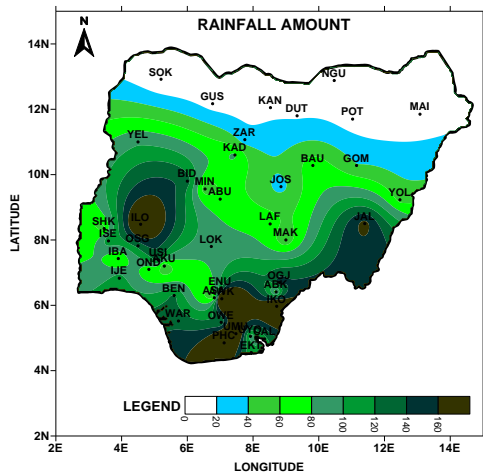


Figure 1: Rainfall Amount (mm)

The observed rainfall amount for the 3rd dekad of September, 2017 is shown in figure 1 above. Moderate to high rainfall amounts were observed across the central down to the southern part of the country. The highest rainfall total was recorded in and around Umuahia (213.4.1mm). Elsewhere recorded above 40mm of rainfall except some part of the northern stations (places in white colour) that had below 40mm.

1.2 Rainfall Departure.

The rainfall departure from long term normal for the 3rd dekad of September, 2017 is shown in figure 2 below. Most part of the central and southern stations experienced normal to above normal rainfall anomalies except Minna, Abuja, Jos, Ondo and Eket that recorded below normal rainfall departure, while the far northern state experienced deficit rainfall departure.

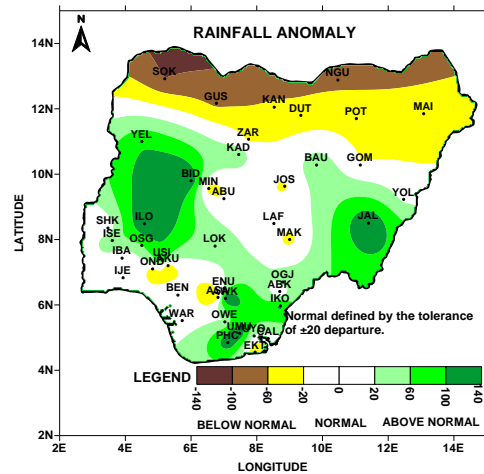


Figure 2: Rainfall Departure

1.3 Number of Rain Days

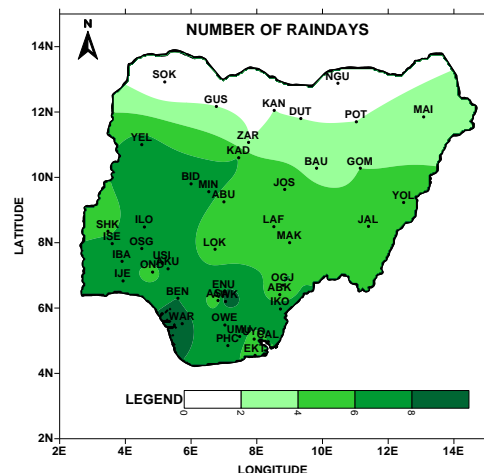


Figure 3: Rain-Day

Figure 3 shows the number of rain-days for the 3rd dekad of September, 2017. The distribution of rain-days indicates a decrease in number of rain-days across the country when compared with the preceding dekad. The number of rain-days ranged between 0-9 days over the country.

1.4 Soil Moisture Index

The available soil moisture conditions across the country for the 3rd dekad of September, 2017 is shown in figure 4. Most parts of the country experienced above normal to normal soil moisture conditions except the far northern states with significant soil moisture stress and Zaria-Jos axis showing mild stress.

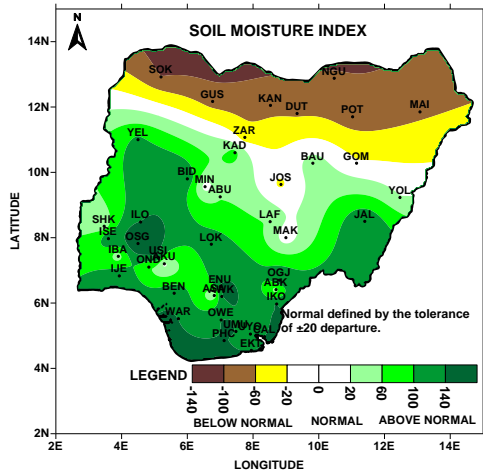


Figure 4: Soil Moisture Index (SMI).

2.0 Temperature Trend

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

2.1 Maximum Temperature Trend

The mean maximum temperature observed over the country for the 3rd dekad of September, 2017 is shown in figure 5 below. The maximum temperature trend ranged between 27.0°C over Eket and 37.2°C over Nguru. The north eastern part of the country was warmest while Eket and the South-western States had the coolest day temperature.

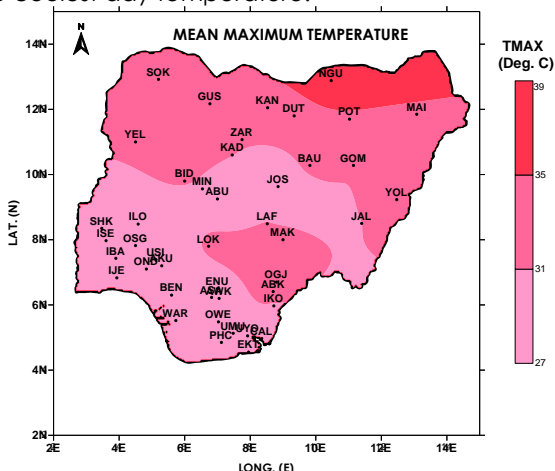


Figure 5: Mean Maximum Temperature

2.2 Maximum Temperature Departure

Figure 6 shows the maximum temperature anomaly for the 3rd dekad of September, 2017. It revealed that most part of the country experience normal to warmer than-normal day time temperature anomalies except Jalingo, Shaki and Eket axes that had warmer than normal temperature anomalies.

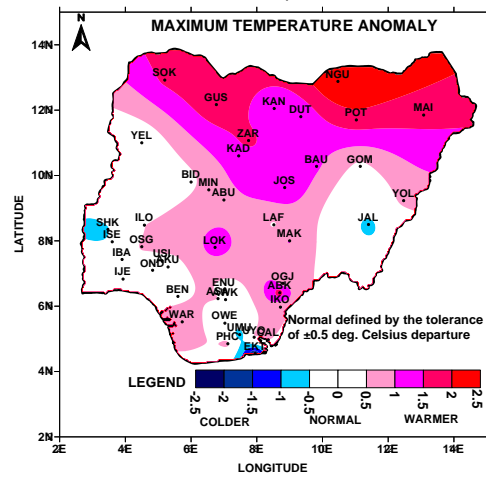


Figure 6: Maximum Temperature Anomaly.

2.3. Minimum Temperature

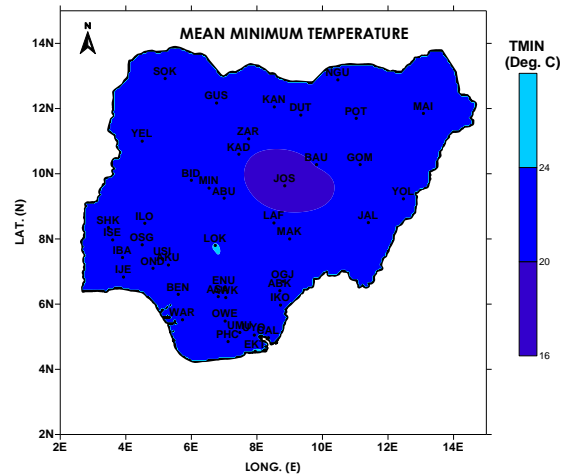


Figure 7: Mean Minimum Temperature

The mean minimum temperature across the country for 3rd dekad of September, 2017 is shown in figure 7. The mean minimum temperature ranged between 16.9°C over Jos and 24.1°C over Lokoja. However, Jos recorded the lowest night time temperature.

2.4 Minimum Temperature Departure

The minimum temperature departure from the long term for the 3rd dekad of September, 2017 is shown in figure 8 below. It revealed that most part of the

country experienced normal to colder than normal night time temperature while areas around, Nguru, Lafia, Bauchi, Jalingo, Usi-Ekiti, Shaki, Ijebu-Ode and Awka indicates warmer than normal night time temperature.

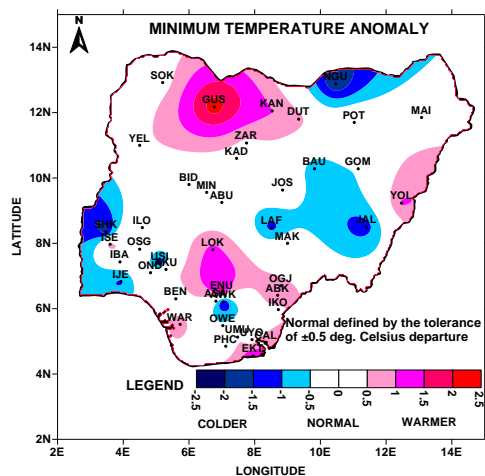


Figure 8: Mean Minimum Temperature Departure

3.0 Weather/Agricultural outlook for 1st dekad (01-10) of October, 2017.

3.1 Weather Outlook

The Inter-Tropical Discontinuity (ITD) is expected to continue its southward retreat with mean position of 13.5N. Sunny and cloudy conditions in the morning are expected over most part of the northern states with chances of localise rain showers towards afternoon to evening hours. Partly cloudy to cloudy conditions are anticipated across the central and southern states with prospects of thundery activities and rains.

3.2 Agricultural Activities

Rain fed agriculture is expected to continue across some parts of the country, while some parts of the far northern states will start experiencing early cessation in the next dekad, though preparation for dry season farming are expected to begin around the extreme north. Cowpea, soya beans and sorghum farming are still ongoing. The second (small) season cropping is at various stage in the southwest. Harvesting of Yam, and Maize in the north central states is going on

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

| STATION | RAINFALL | RAINDAYS | PET | TMAX | TMIN | DD | RADIATION |
|---------|----------|----------|------|------|------|-------|-----------|
| ABK | 65.5 | 4 | 45.7 | 32.0 | 23.3 | 196.7 | 18.9 |
| ABU | 69.9 | 5 | 44.6 | 30.4 | 21.5 | 179.4 | 19.1 |
| AKU | 43.5 | 7 | 40.6 | 29.1 | 21.6 | 173.6 | 17.5 |
| ASA | 54.1 | 5 | 41.9 | 30.6 | 23.0 | 187.8 | 17.6 |
| AWK | 247.7 | 9 | 43.2 | 29.9 | 21.5 | 177.0 | 18.5 |
| BAU | 72.6 | 3 | 51.0 | 31.9 | 20.2 | 180.2 | 21.8 |
| BEN | 123.6 | 8 | 39.1 | 29.8 | 23.2 | 185.1 | 16.5 |
| BID | 132.7 | 7 | 44.5 | 31.1 | 22.4 | 187.5 | 18.7 |
| CAL | 113.2 | 6 | 37.0 | 29.6 | 23.5 | 185.5 | 15.6 |
| DUT | 17.4 | 2 | 50.4 | 33.4 | 22.6 | 199.9 | 20.8 |
| EKT | 104.9 | 5 | 25.3 | 27.0 | 24.1 | 175.9 | 10.9 |
| ENU | 110.3 | 8 | 38.3 | 30.4 | 23.9 | 191.6 | 16.1 |
| GOM | 41 | 4 | 48.3 | 31.1 | 20.5 | 178.4 | 20.7 |
| GUS | 10.7 | 2 | 48.9 | 33.4 | 23.4 | 203.7 | 20.0 |
| IBA | 53.9 | 6 | 39.9 | 29.1 | 21.8 | 174.5 | 17.2 |
| IJE | 110.1 | 7 | 40.9 | 29.3 | 21.6 | 174.4 | 17.6 |
| IKO | 227.6 | 8 | 42.6 | 30.8 | 23.0 | 189.2 | 17.9 |
| ILO | 210.4 | 7 | 44.0 | 30.3 | 21.6 | 179.2 | 18.8 |
| ISE | 114.3 | 8 | 34.7 | 28.2 | 22.6 | 173.7 | 15.0 |
| JAL | 167.9 | 4 | 47.4 | 31.0 | 20.9 | 179.6 | 20.2 |

| | | | | | | | |
|-----|--------|---|------|------|------|-------|------|
| JOS | 32.5 | 6 | 45.1 | 27.5 | 16.9 | 142.0 | 20.7 |
| KAD | 83.5 | 6 | 48.2 | 31.1 | 20.6 | 178.2 | 20.6 |
| KAN | 15 | 2 | 49.4 | 33.3 | 22.9 | 201.0 | 20.3 |
| LAF | 72.9 | 4 | 46.3 | 31.2 | 21.4 | 182.9 | 19.7 |
| LOK | 89.4 | 5 | 41.1 | 31.2 | 24.1 | 196.6 | 17.0 |
| MAK | 44.3 | 6 | 46.5 | 31.8 | 22.6 | 191.8 | 19.4 |
| MIN | 47.1 | 7 | 46.7 | 30.8 | 21.1 | 179.5 | 19.9 |
| NGU | 3 | 1 | 62.1 | 37.2 | 21.5 | 213.8 | 25.0 |
| OGJ | 152.4 | 6 | 44.7 | 31.3 | 22.9 | 191.1 | 18.7 |
| OND | 66.8 | 5 | 40.5 | 29.0 | 21.5 | 172.2 | 17.5 |
| OSG | 126.3 | 8 | 41.6 | 29.5 | 21.7 | 176.1 | 17.9 |
| OWE | 119.2 | 6 | 39.9 | 29.8 | 22.7 | 182.3 | 16.9 |
| PHC | 210.9 | 7 | 41.2 | 30.2 | 22.7 | 184.2 | 17.4 |
| POT | 9.7 | 2 | 53.2 | 34.5 | 22.8 | 206.2 | 21.7 |
| SHK | 54.1 | 5 | 42.2 | 28.6 | 20.2 | 164.0 | 18.5 |
| SOK | 0 | 0 | 51.5 | 34.4 | 23.4 | 209.2 | 20.9 |
| UMU | 213.41 | 7 | 38.6 | 29.4 | 22.9 | 181.3 | 16.4 |
| USI | 133.4 | 7 | 44.9 | 29.4 | 19.9 | 166.6 | 19.6 |
| UYO | 90 | 5 | 40.7 | 30.3 | 23.1 | 187.1 | 17.1 |
| WAR | 133.6 | 9 | 39.7 | 30.6 | 23.9 | 192.3 | 16.6 |
| YEL | 95.8 | 7 | 45.8 | 31.7 | 22.6 | 191.1 | 19.1 |
| YOL | 53.3 | 5 | 43.6 | 31.9 | 24.0 | 199.6 | 18.0 |
| ZAR | 27.2 | 2 | 48.7 | 31.5 | 20.8 | 181.5 | 20.7 |

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:

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