

Agro-meteorological Bulletin No.30, Dekad 3, October (21-31) 2017

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Summary

The agrometeorological bulletin for 3rd dekad of October, 2017 shows a significant reduction in rainfall amount when compared with the 2nd dekad and the highest rainfall total was recorded at Ikeja (86.7mm). The rainfall distribution showed reduction (0-7) of rain-days across the country. The rainfall anomalies reveal most parts of the country experienced below normal rainfall anomalies except some parts of Ikeja and Oshodi that had above normal rainfall anomalies. The highest mean day-time temperature was recorded at Sokoto (37.6°C) while, the lowest mean night-time temperature was observed at Jos (14.3°C). The maximum temperature anomaly revealed that most parts of the country experienced warmer than normal temperature across most parts of the country. The Inter-Tropical Discontinuity (ITD) is expected to continue its southward retreat with mean position of 9.5N. The second rain-fed agriculture is expected to continue across the southern states.

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 October, 2017.

1.1 Rainfall Amount

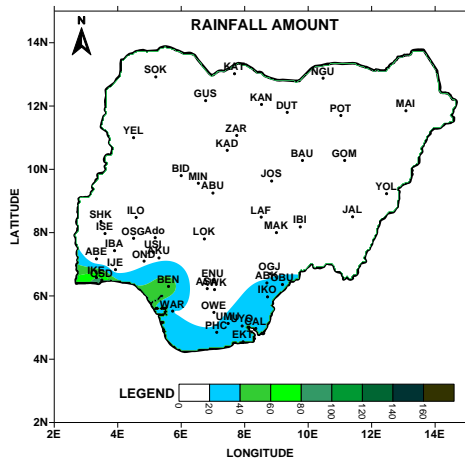


Figure 1: Rainfall Amount (mm)

The observed rainfall amount across stations in Nigeria for the 3rd dekad of October 2017 is shown in figure 1. A significant reduction in rainfall amount was observed when compared with the 2nd dekad to below 40mm over southern states. Moderate to low rainfall amounts were observed across the coastal cities. The highest rainfall total was recorded at Oshodi (86.7mm).

1.2 Rainfall Departure.

The rainfall departure from long term normal for the 3rd dekad of October, 2017 is shown in figure 2 below. Most parts of the country experienced below normal rainfall anomalies except some places in and around Ikeja and Oshodi stations that recorded above normal rainfall anomalies.

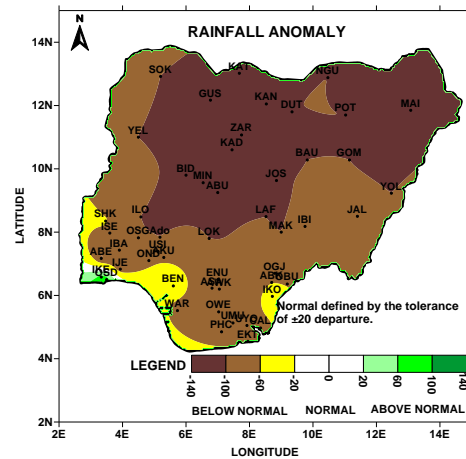


Figure 2: Rainfall Departure

1.3 Number of Rain Days

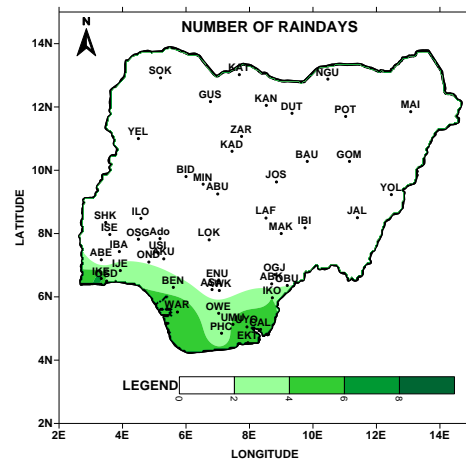


Figure 3: Rain-Day

Figure 3 shows the number of rain-days for the 3rd dekad of October, 2017. A further reduction in rain days were observed particularly over the southern cities. Number of rain days across the country ranged from 0-7 days, with highest over Ikeja with 7 rain days.

1.4 Soil Moisture Index

The available soil moisture conditions across the country for the 3rd dekad of October, 2017 in figure 4 shows obvious dryness over most parts of the country. below-normal soil moisture conditions were observed across most parts of the country, except Ikom, Benin, Calabar and Ikeja that had normal to above-normal soil moisture conditions.

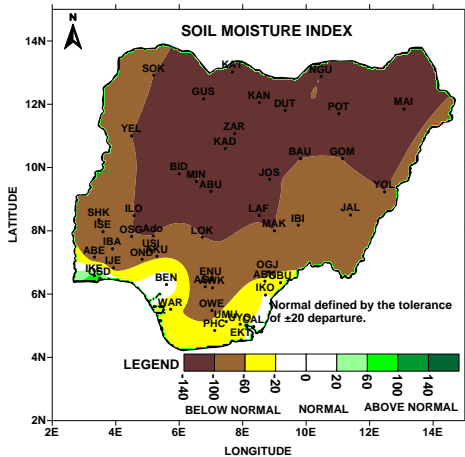


Figure 4: Soil Moisture Index (SMI).

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 October, 2017 is shown in figure 5 below. The maximum temperature trend ranged between 28.5°C over Jos and 37.6°C over Sokoto. The fringes of northern part of the country was warmest while Jos, south-west and south-south had the coolest day temperature.

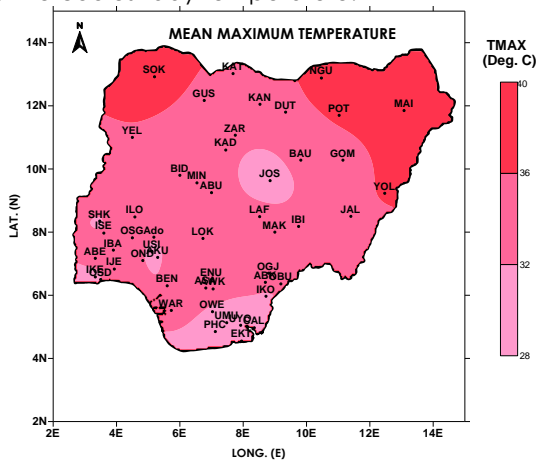


Figure 5: Mean Maximum Temperature

2.2 Maximum Temperature Departure

The maximum temperature anomaly for the 3rd dekad of October, 2017 in figure 6 shows normal-to-warmer than normal temperature across most parts of the country, except Kano in the North that had colder than-normal day time temperature anomaly.

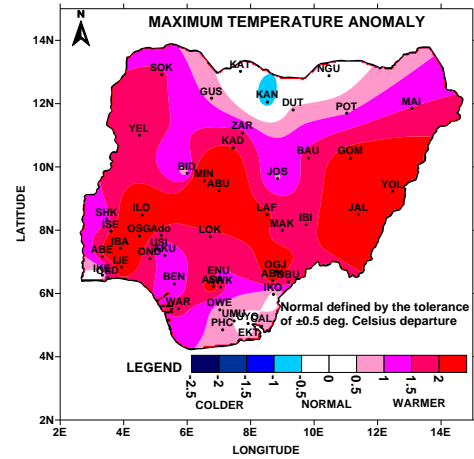


Figure 6: Maximum Temperature Anomaly.

2.3. Minimum Temperature

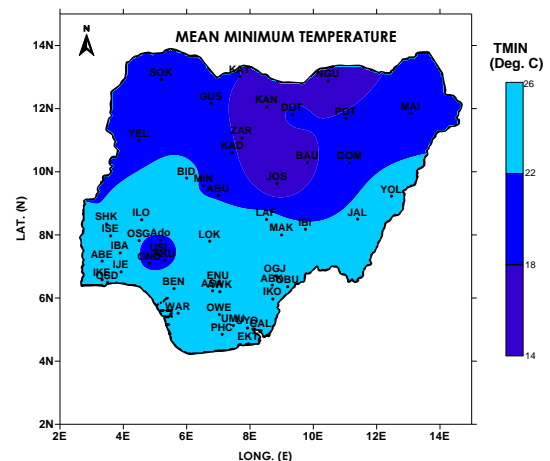


Figure 7: Mean Minimum Temperature

The mean minimum temperature across the country for 3rd dekad of October, 2017 is shown in figure 7. The mean minimum temperature ranged between 14.4°C over Jos and 25.2°C over Benin. 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 October, 2017 in figure 8 below revealed that, the northern states experienced colder-than-normal night time temperature anomalies except Gombe, Minna and Abuja while elsewhere experienced warmer-than-normal temperatures. that had normal night time temperature. The southern parts experienced warmer than normal night time temperature, with the

exception places in and around Usi-Ekiti that had colder-than-normal normal night time temperature anomalies.

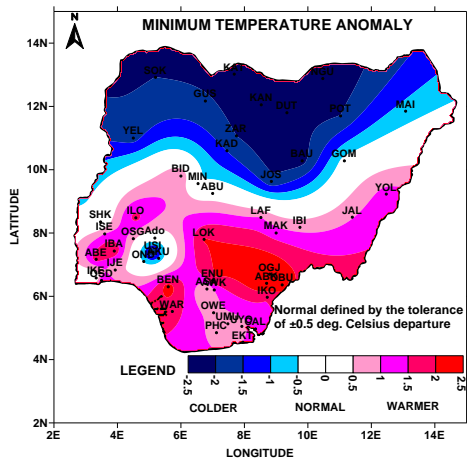


Figure 8: Mean Minimum Temperature Departure

3.0 Weather/Agricultural outlook for Third (3rd) dekad (21-31) of October, 2017.

3.1 Weather Outlook

The Inter-Tropical Discontinuity (ITD) is expected to continue its southward retreat with mean position of 9.5N. Sunny and hazy conditions are expected to dominate the northern cities particularly in the afternoon, with dust haze conditions in some parts of the northern cities in the morning.

Partly cloudy to cloudy conditions are anticipated across the central and southern states with prospects of thundery activities and rains.

3.2 Agricultural Activities

Harvesting of yam, sweet potatoes, etc. and second rain-fed agriculture growing season is still ongoing across the southern states. However, intensification of activities in preparation and supplementation for dry season/irrigation farming are expected to continue over the North and central states. Cowpea, Soya beans and sorghum farming are still ongoing.

Table of Agrometeorological Data for the Dekad

STATION	RAINFALL (mm)	RAIN-DAYS	PET	TMAX	TMIN	GDD	RAD
ABEOKUTA	0	0	50.7	33.5	24.9	233.4	18.6
ABAKALIKI	22.2	1	50.6	33.6	25.1	234.6	18.5
ABUJA	0	0	59.7	34.2	21.6	219.0	22.4
ASABA	3.1	1	53.8	33.4	23.4	224.6	20.0
BAUCHI	0	0	66.4	34.4	17.2	195.6	25.9
BENIN	54.5	3	44.9	32.0	25.2	226.6	16.6
BIDDA	0	0	51.8	33.6	23.9	228.3	18.9
CALABAR	35.1	4	42.5	30.5	24.1	212.3	16.1
ENUGU	0	0	49.4	32.7	24.3	225.2	18.3
GOMBE	0	0	64.4	35.0	20.1	215.1	24.3
IBADAN	0	0	51.3	33.3	24.3	228.7	18.9
IJEBU	7.8	4	52.1	32.7	23.2	219.2	19.5
IKEJA	79.5	7	46.4	30.6	22.7	205.4	17.8
IKOM	37.6	4	45.6	31.6	24.3	219.4	17.1
ILORIN	0	0	57.5	34.5	23.3	230.1	21.2
ISEYIN	11.8	2	50.0	32.2	23.4	217.5	18.8
JOS	0	0	55.9	28.5	14.4	147.9	23.6
KANO	0	0	66.6	33.7	15.8	184.4	26.4

KATSINA	0	0	66.4	34.9	18.0	203.3	25.5
LAFIA	0	0	54.8	34.1	23.9	231.4	20.2
LOKOJA	0	0	51.6	33.9	25.0	236.1	18.8
MAKURDI	0	0	53.4	33.8	24.1	230.9	19.7
MINNA	0	0	61.9	34.7	21.2	219.7	23.2
NGURU	0	0	73.4	36.7	15.9	201.5	28.3
OSHODI	86.7	3	46.8	32.2	24.7	225.2	17.4
OWERE	15	3	46.6	31.6	24.0	217.9	17.5
PHC	22	3	46.3	31.2	23.6	213.0	17.5
POTISKUM	0	0	69.7	36.3	18.3	212.5	26.4
SHAKI	8.6	1	51.6	31.8	22.1	208.0	19.7
SOKOTO	0	0	69.5	37.6	20.7	233.1	25.5
UYO	33.5	6	44.6	30.8	23.7	212.1	16.9
WARRI	19.7	6	47.7	32.7	25.0	229.2	17.6
YELWA	0	0	65.2	35.6	20.4	220.3	24.4
YOLA	0	0	61.4	36.3	24.0	243.5	22.1
ZARIA	0	0	63.2	33.2	17.5	190.6	24.8
USI-EKITI	8.3	1	56.8	31.7	19.4	193.1	22.2
ADO-EKITI	0	0	53.7	32.1	21.6	207.3	20.5
DUTSE	0	0	65.7	35.2	18.8	209.2	25.1

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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