

Agro-meteorological Bulletin No.36, Dekad 3, December (20-31) 2017

ISSN: 2315-9790

Summary

The third dekad of December, 2017 shows slight increase in rainfall distribution and amount across the southern states of the country when compared with the preceding dekad the highest rainfall amount was recorded at Eket (42.6mm). Number of rain days around the southern cities ranged from 1-3 rain days, with highest over Eket with 3 rain days.

The rainfall anomalies indicate that most parts of the country experienced below normal to normal rainfall anomalies except some areas in and around Eket that had above normal rainfall anomalies.

The highest mean maximum day-time temperature was recorded at Lafia (35.5°C) while the mean minimum night-time temperature was observed at Jos (11.8°C). The maximum temperature anomaly shows that the entire country experienced warmer than normal temperature departure. The Inter-Tropical Discontinuity (ITD) is expected to continue its southward retreat with mean position of 7.0°N. The second harvests are expected to continue across the country.

1.0 Rainfall Pattern

This section highlights the observed rainfall amount, rain-days, available soil moisture and their departures from normal for the third dekad of December, 2017.

1.1 Rainfall Amount

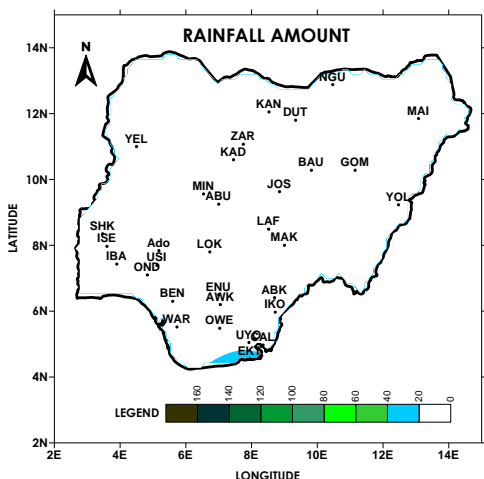


Figure 1: Rainfall Amount (mm)

The observed rainfall amount for the third dekad of December, 2017 across stations in Nigeria is shown in fig 1 above. It revealed that no rainfall was recorded in most part of the country. Slight rainfall amount was recorded within the southern part of the country with highest amount recorded in Eket (42.6mm). No rainfall was recorded in the northern part of the country during the dekad.

1.2 Rainfall Departure.

The departure of rainfall from long term normal for the 3rd dekad of December, 2017 is shown in figure 2 below. Most parts of the country experienced below normal to normal rainfall anomalies except areas in and around Ibadan and Eket that had above normal rainfall anomalies.

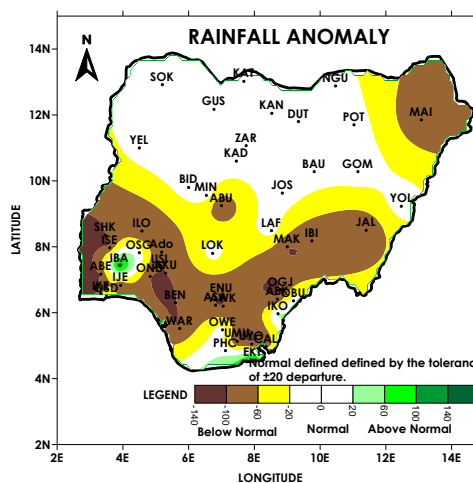


Figure 2: Rainfall Departure

1.3 Number of Rain Days

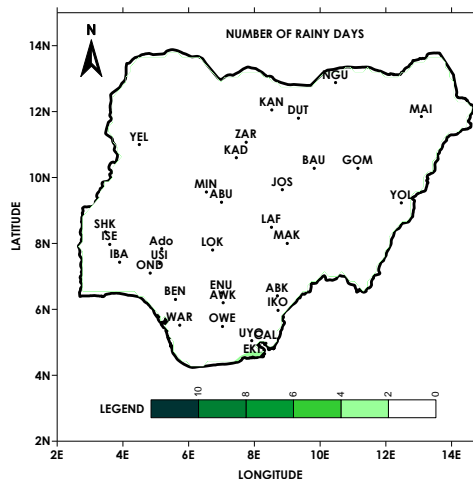


Figure 3: Rain-Day

The number of rain-days for the 3rd dekad of December, 2017 is shown above. An increase in number of rain days were observed over the south-south. Number of rain days around the country ranged from 1-3 rain days, with highest over Eket with 3 rain days.

1.4 Soil Moisture Index

The available soil moisture conditions for the third dekad of December 2017 is shown in figure 4 below. Which indicate that the entire country experienced below normal soil moisture conditions during the dekad.

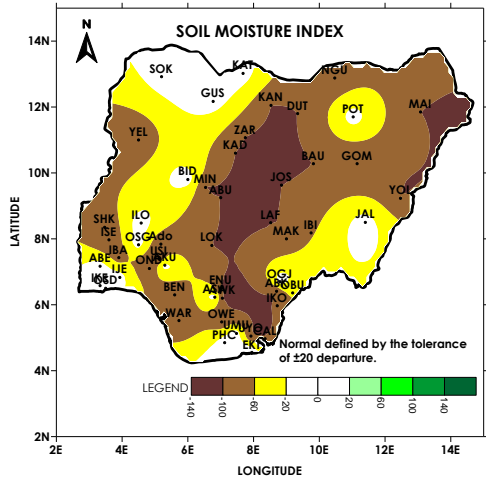


Figure 4: Soil Moisture Index (SMI).

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 third dekad of December 2017.

2.1 Maximum Temperature Trend

Figure 5 shows the observed mean maximum day-time temperature over the country for the third dekad of December, 2017. The maximum temperature trend ranged from 28.0°C over Jos and 35.5°C over Eket.

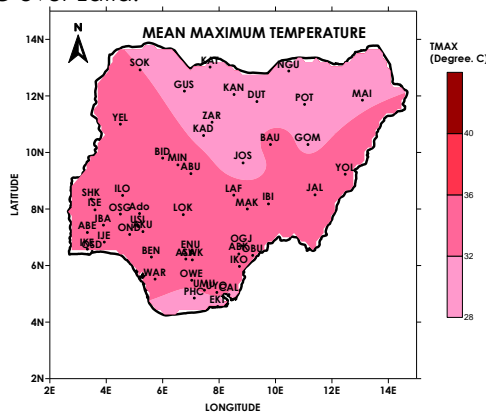


Figure 5: Mean Maximum Temperature

2.2 Maximum Temperature Departure

Figure 6 shows the maximum day-time temperature anomaly for the third dekad of December, 2017. The maximum temperature anomaly showed warmer than normal to temperatures anomaly prevailed across the country except stations in and around the extreme north and Eket that had colder than normal temperatures anomaly.

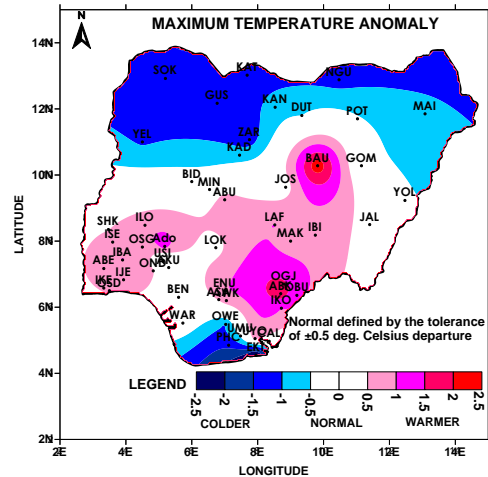


Figure 6: Maximum Temperature Anomaly.

2.3. Minimum Temperature

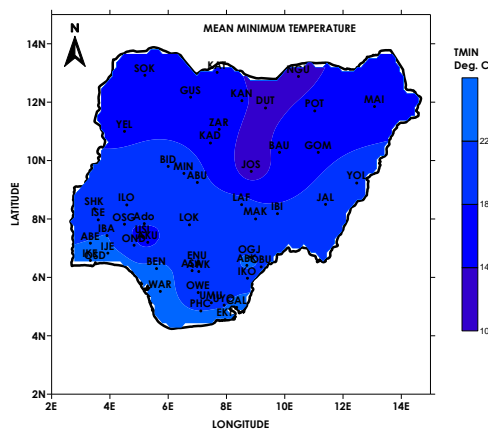


Figure 7: Mean Minimum Temperature

The mean minimum temperature across the country for first dekad of December, 2017 is shown in figure 7. The mean minimum temperature ranged between 11.8°C over Jos and 24.2°C over Eket. However, Ilori recorded the lowest night time temperature during the dekad.

2.4 Minimum Temperature Departure

The minimum temperature departure from the long term for the third dekad of December, 2017 is shown in figure 8 below. Most part of country had warmer than normal night time temperatures, while areas in around Dutse, Nguru, Owerri, Calaber, Ikom and Usi-

Ekiti experienced colder than normal night time temperature anomalies.

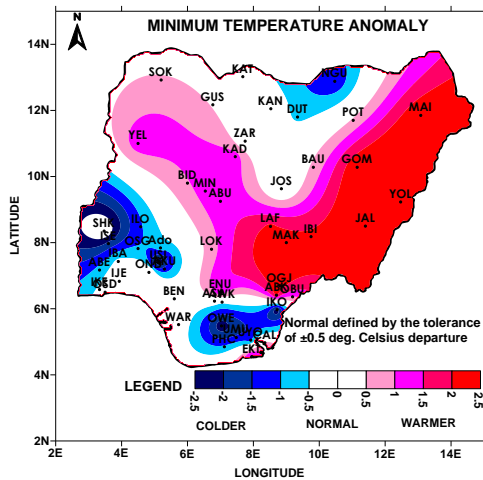


Figure 8: Mean Minimum Temperature Departure

3.0 Weather/Agricultural outlook for the first (1st) dekad (1-10) of January, 2017.

Table of Agrometeorological Data for the Dekad

STATION	RAINFALL	RAIN-DAYS	PET	TMAX	TMIN	GDD	RAD
ABK	0	0	58.7	35.1	22.5	228.6	21.7
ABU	0	0	64.7	35.4	19.1	211.6	24.5
Ado	0.2	1	60.5	33.8	19.1	202.9	23.3
AWK	0	0	59.2	33.9	20.0	208.0	22.7
BAU	0	0	65.5	33.9	14.8	179.5	26.3
BEN	0	0	51.1	33.0	23.2	221.3	19.1
CAL	1.4	1	45.8	31.7	23.6	216.1	17.3
DUT	0	0	55.6	29.4	13.6	148.5	23.5
EKT	42.6	3	37.1	29.6	24.2	208.2	14.1
ENU	0	0	56.6	34.1	21.8	219.6	21.3
GOM	0	0	57.2	31.3	16.7	175.7	23.0
IBA	8.2	1	55.7	33.8	22.1	219.4	20.9
IKO	4.6	1	56.5	33.2	20.7	208.4	21.6
ISE	0	0	59.4	34.2	20.5	213.0	22.5
JOS	0	0	55.8	28.0	11.8	131.2	24.3
KAD	0	0	56.7	30.7	16.1	169.6	23.0
KAN	0	0	55.1	29.2	14.2	150.7	23.1
LAF	0	0	64.1	35.5	19.7	215.4	24.2

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)

LOK	0	0	60.6	34.5	20.4	214.0	22.9
MAI	0	0	58.8	31.7	15.9	174.3	23.7
MAK	0	0	62.8	35.2	19.8	214.5	23.8
MIN	0	0	61.0	34.9	20.5	216.8	22.9
NGU	0	0	57.7	30.0	13.5	151.0	24.2
OND	0	0	56.4	33.1	20.3	205.8	21.6
OWE	0	0	54.9	32.3	20.2	201.0	21.2
SHK	0	0	58.8	33.3	19.2	200.7	22.7
USI	0	0	63.1	32.0	13.5	162.4	26.1
UYO	0	0	54.6	33.0	21.4	211.2	20.8
WAR	0	0	50.7	32.8	23.1	219.4	19.0
YEL	0	0	62.8	34.0	17.4	194.4	24.5
YOL	0	0	59.3	34.2	20.4	212.0	22.4
ZAR	0	0	56.8	30.2	15.1	161.1	23.4

3.1 Weather Outlook

The Inter-Tropical Discontinuity (ITD) is expected to continue its southward retreat with mean position of 7.0°N. Dust and hazy conditions are expected to dominate the northern cities particularly in the afternoon, with with sunny and haze conditions in some parts of the north central cities.

Partly cloudy to cloudy conditions are anticipated across southern states with sunny and hazy condition over coastal areas.

3.2 Agricultural Activities

The main season harvests are expected to continue across the country. Harvest of Cassava, sweet potatoes and corn is currently ongoing across the country. 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, sweet potatoes and sorghum farming are still ongoing.

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