

NIGERIAN METEOROLOGICAL AGENCY

NATIONAL WEATHER FORECASTING AND CLIMATE RESEARCH CENTRE,
 BILL CLINTON DRIVE, NNAMDI AZIKIWE INTERNATIONAL
 AIRPORT, P.M.B. 615, GARKI, ABUJA, NIGERIA

Agrometeorological Bulletin No.30, Dekad 3, October (21 –31) 2014 ISSN: 2315-9790

SUMMARY

The 3rd dekad of October showed that rainfall in the northern and central parts of the country continued to decline indicating the signal of end of the rainy season in these parts of the country. The southward movement of the ITD placed its position between latitude 9°N and 11°N. Soil moisture conditions in the South varied from neutral to surplus while the North had deficits. Warri station recorded the highest rainfall amount of 169.4mm in 9 rain-days that was followed by Abakaliki with 167.6mm in 6 rain-days. The northern part of the country recorded increase in maximum temperatures with Sokoto having the highest value of 38.2°C while Eket in the South reported the lowest value of 28°C. The entire country continued to engage in the harvesting of both staple foods and tree crops while plan for preparation for dry season farming would commence in the next dekad over the North.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

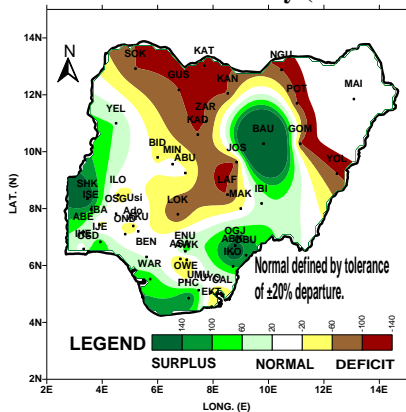


Fig.1: 3RD DEKAD OCT, RAINFALL ANOMALIES

The rainfall anomaly over the country is shown in Fig.1 above and it can be inferred that most parts of the South and Bauchi, parts of the Jos and Ibi had normal to surplus rainfall anomaly. The extreme North, parts of Gombe, Yola, Kaduna and Lafia recorded normal to deficit rainfall anomalies.

Rainfall Amounts

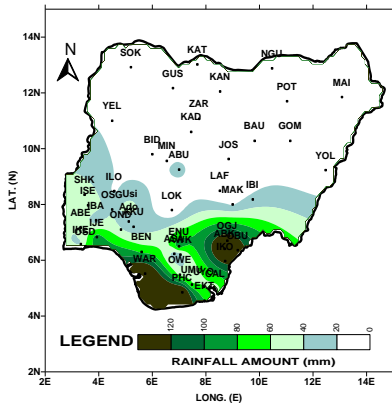


Fig. 2 above shows the actual rainfall for the dekad and it indicates a further reduction in the rainfall amount in the North and the central states when compared with 2nd dekad of the month. The highest rainfall amount was recorded over Warri with 169.4mm in 9 rain-days, followed by Abakaliki with 167.6mm in 6 rain-days and Port-Harcourt with 163.9mm in 4 rain-days.

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 3RD DEKAD OF OCTOBER

Fig.3A and Fig.3B below show the comparison of the actual rainfall amounts measured and normal/long term averages during the dekad over the northern and southern parts of the country respectively. In the North (Fig.3A), most stations that recorded rainfall were below normal rainfall except Yelwa and Bauchi that recorded above-normal rainfall. In the South (Fig.3B), revealed that most stations recorded normal to above normal rainfall except Awka, Asaba, Ado-Ekiti, Ondo, Akure, Uyo, Calabar and Eket that had below normal rainfall.

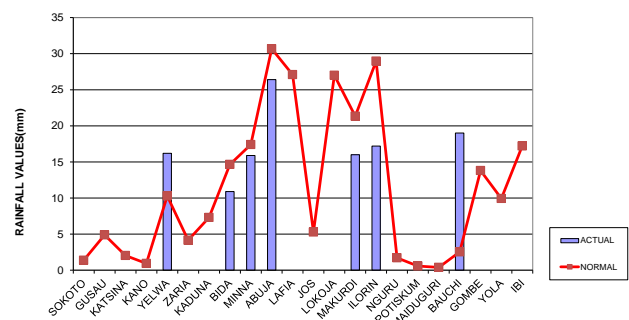


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 OCTOBER 2014: FOR NORTHERN AND CENTRAL STATES OF NIGERIA.

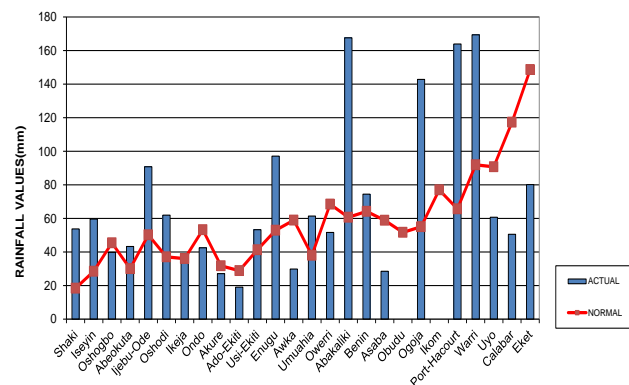


FIG. 3B: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 OCTOBER 2014: FOR SOUTHERN STATES OF NIGERIA.

1.3 Number of Rain Days.

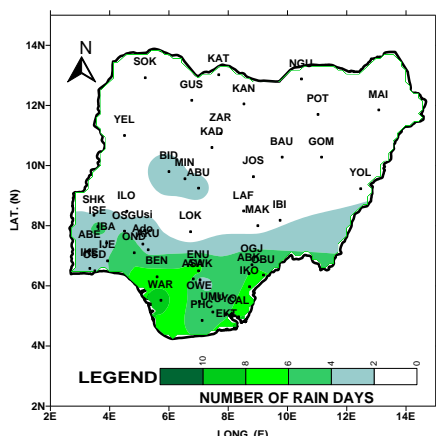


Fig.4: NUMBER OF RAIN DAYS

Number of rain-days distribution over the country is shown in *Fig.4* above. It reveals a reduction in the number of rain-days in the North such that their stations recorded between 0 and 2 rain-days except places like Abuja and Bida that had 3 rain-days. Most stations in the central and southern states had 3 - 6 rain-days while few stations like Enugu, Benin, Warri, Eket and Calabar recorded 7 to 9 rain-days.

2.0 SOIL MOISTURE CONDITION

Fig.5 below shows the soil moisture indices across the country and it reveals that the northern and central parts of the country had deficit soil moisture conditions, effect of ending of rainy season in the area. The Southern part had neutral to surplus soil moisture indices that supported good development of maturing crops in that part of the country.

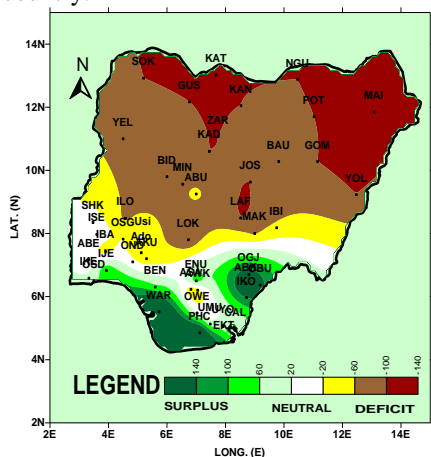


Fig.5: 3RD DEKAD OF OCTOBER SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

Fig.6 below is the maximum temperature anomaly and it shows that most parts of the country had normal to colder than normal maximum temperature anomalies. However, stations like Katsina, Shaki, Ikom, Kaduna, Nguru and

Sokoto recorded warmer than normal temperature anomaly.

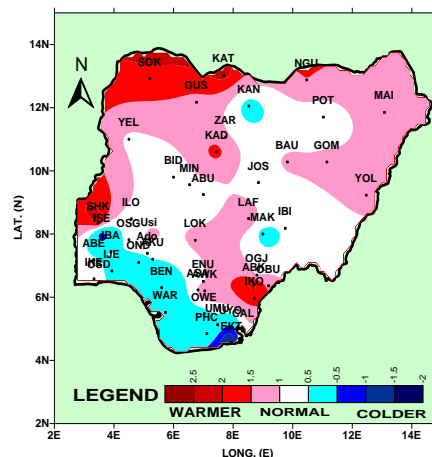


Fig.6: Maximum Temperature Anomaly.

3.2 Maximum Temperature Values.

Actual mean maximum temperature distribution across the country is shown in *Fig.7* below and indicates that most parts of the country had mean maximum temperatures above 30°C except Jos, Eket, and Uyo. The extreme North had mean maximum temperature above 34°C. Sokoto and Eket stations recorded the highest and lowest temperature values of 38.3°C and 28°C respectively.

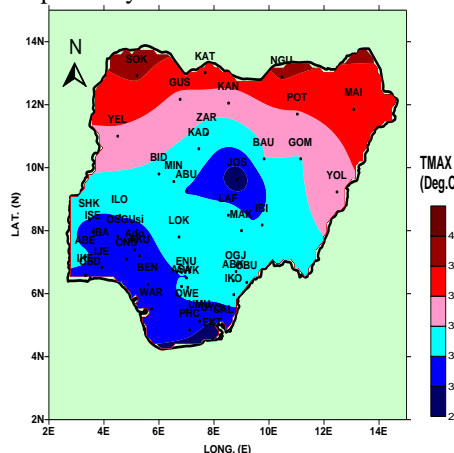


Fig. 7: Mean maximum Temperature

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF NOVEMBER, 2014

4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to oscillate between latitudes 9deg. N and 11degN. The northern part of the country is expected to be partly cloudy and sunny. The central states are expected to be cloudy/partly with occasional rains/thunderstorms. The inland and coastal areas of the South are likely to

experience cloudy weather conditions with rains/showers and localized thunderstorms.

The northern and the central states are expected to have mean maximum temperatures of the range 30°C - 38°C, while the mean minimum temperatures will lie between 18°C and 22°C. The mean maximum temperatures over the inland and coastal areas of the South are expected to be between 28°C and 31°C, while the mean minimum temperatures will range from 22°C to 24°C.

4.2 Agricultural Activity/Outlook

Farmers in the country continued to harvest staple foods like, yam, cassava, maize, millet, legumes (groundnut and cowpea), water melon, melon seed and potatoes.

Preparation for the dry season farming is expected to start in the northern part of the country, through land clearing, nursery preparation and making all the necessary arrangement for the season.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOKUTA	43.3	3	50.3	32.4	23.6	220.2	18.8
ABUJA	26.4	3	54.2	31.9	20.9	202	20.9
ABAK	167.6	6	53.5	33.5	23.7	226.4	19.8
AKURE	27.1	3	48.6	30.8	22.0	202	18.7
AWKA	29.9	3	52.4	33.0	23.6	223.3	19.5
BAUCHI	19	1	60.7	34.0	20.6	212	23
BENIN	74.5	7	44.1	30.8	23.6	211.3	16.7
BIDA	10.9	3	54.1	33.5	23.3	224.3	20.1
CALABAR	50.6	8	47.4	30.7	22.5	204.5	18.2
EKET	80.2	8	36.3	28.0	23.0	192.7	14.2
ENUGU	97.1	7	50.5	31.9	22.8	212.7	19.1
GOMBE	0	0	56.5	33.9	22.7	223.4	21
GUSAU	0	0	65.4	35.4	19.8	215.7	24.7
IBADAN	28.7	3	48.1	31.1	22.7	207.8	18.4
IJEBU	90.8	4	46.2	30.7	22.9	206.5	17.7
IKEJA	36.3	2	XX	31.4	23.8	XX	XX
ILORIN	17.2	1	52.6	32.1	22.1	210.1	20
ISEYIN	59.6	5	49.7	30.7	21.4	198.2	19.3
JOS	0	0	54	28.2	15.2	150.6	22.8
KADUNA	0	0	61.7	33.4	19.0	200.2	23.9
KANO	0	0	68.6	34.9	16.5	194.8	26.8
KATSINA	0	0	71.2	37.3	19.1	222.1	26.6
LAFIA	0	0	54.6	33.7	23.5	226.4	20.2
LOKOJA	0	0	53.6	33.5	23.7	226.7	19.9
MAKURDI	16	1	50.6	32.1	23.0	214.7	19.1
MINNA	15.9	2	54.3	32.8	22.3	215.1	20.5
NGURU	0	0	71.7	38.2	20.4	234.7	26.3
OGOJA	142.8	6	52.4	32.5	22.8	216	19.7
OSHODI	62	2	46.1	31.2	23.7	213.8	17.4
OSOGBO	39.8	4	49.3	31.0	21.9	203	19
OWERRI	51.7	5	48	31.2	22.9	209.1	18.3
PHC	163.9	4	46.4	30.6	22.8	205.6	17.8
POT	0	0	68.3	35.8	18.5	210.5	26
SHAKI	53.8	2	52.7	32.0	22.0	209	20.1
SOKOTO	0	0	70.8	38.3	21.3	239.5	25.7
UYO	60.7	5	41.8	29.6	23.0	201.3	16.1
WARRI	169.4	9	44.4	30.8	23.6	211.5	16.8
YELWA	16.2	1	59.1	35.6	23.9	239.5	21.5
YOLA	0	0	58.9	35.7	24.2	241.7	21.3
ZARIA	0	0	59.9	33.2	19.6	202	23.1
ADO-EKITI	19.1	3	49.6	30.8	21.4	199.2	19.2
USI-EKITI	53.3	3	57.9	31.4	18.2	184.6	23

Note:

- Rainfall (mm)
- PET = Potential Evapotranspiration (mm/day)
- TMAX = Maximum Temperature (°C)
- TMIN = Minimum Temperature (°C)
- GDD = Growing Degree Day (day)
- RAD = Radiation (MJ/m²/day)

Dear All,

Comments and suggestions on how to improve this publication are welcome. Agrometeorologists, Agriculturists, Extension Workers, Research Officers, Users and the General Public should kindly send feedback to:

The Director-General/CEO,

Nigerian Meteorological Agency (NiMet),

National Weather Forecasting and Climate

Research Centre, Nnamdi Azikiwe International

Airport, PMB 615 Garki, Abuja.

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