



## Agrometeorological Bulletin No.19, Dekad 1, JULY (1 –10) 2015

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### SUMMARY

The rainfall anomaly for the 1<sup>st</sup> dekad of July, 2015 shows deficit rainfall over the north except for Sokoto and Bauchi that recorded surplus rainfall. The central part of the country had surplus rainfall especially areas in and around Lokoja that resulted in the flood reported within the dekad. The Inter-Tropical Discontinuity (ITD) was located between latitude 15.5 and 18°N. **The highest rainfall amount for the dekad was recorded over Lokoja with 216.2mm in 6 rain-days, followed by Abakaliki with 194.2mm in 5 rain-days and Ogoja with 191.4mm in 6 rain-days.** The country experienced warmer than normal maximum temperature anomalies except for Port-Harcourt, Eket, Uyo and Umuaia recorded colder than normal temperature.

### 1.0 RAINFALL PATTERN

#### 1.1 Rainfall Anomaly (Deficit / Surplus)

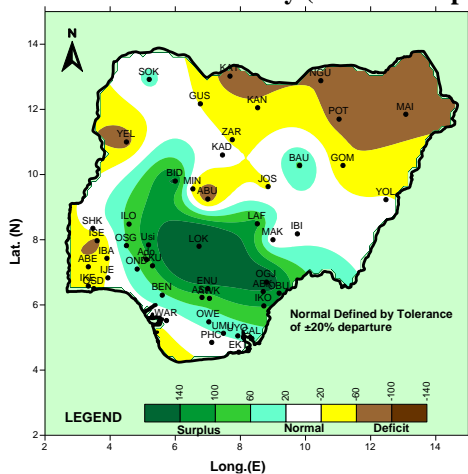


Fig.1: 1<sup>ST</sup> DEKAD JULY, RAINFALL ANOMALIES

The rainfall anomaly for the 1<sup>st</sup> dekad of July, 2015 shows deficit rainfall over the north except for Sokoto and Bauchi that recorded surplus rainfall. The central part of the country had surplus rainfall especially areas in and around Lokoja. Mild rainfall deficit still persist in the southwest. The southeast had surplus rainfall.

#### Rainfall Amounts

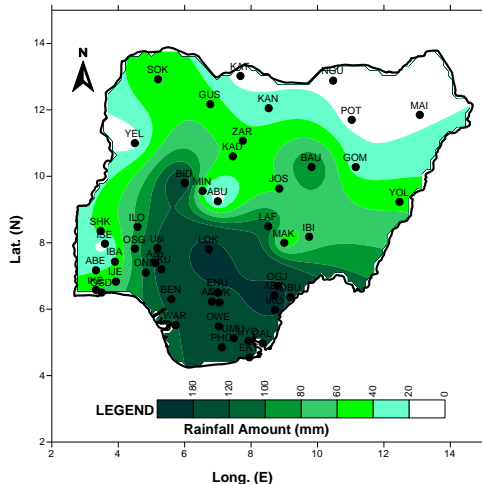


Fig.2: 1<sup>ST</sup> DEKAD JULY, RAINFALL AMOUNT

The actual rainfall amount for the 1<sup>st</sup> dekad of July, 2015 as shown in Fig.2 shows a poor spread of rainfall over the north. **The highest rainfall amount for the dekad was recorded over Lokoja with 216.2mm in 6 rain-days, followed by Abakaliki with 194.2mm in 5 rain-days and Ogoja with 191.4mm in 6 rain-days.**

#### 1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 1<sup>ST</sup> DEKAD OF JULY, 2015

The charts below shows the comparison of the actual rainfall amounts measured and normal/long term averages during the dekad is shown in Fig.3A and Fig.3B. Most stations in the north recorded below normal rainfall except for Bauchi, Bida, Sokoto Lafia and Lokoja that recorded above normal rainfall. Stations in the south recorded above normal rainfall except Lagos, Iseyin and Ibadan that recorded below normal rainfall.

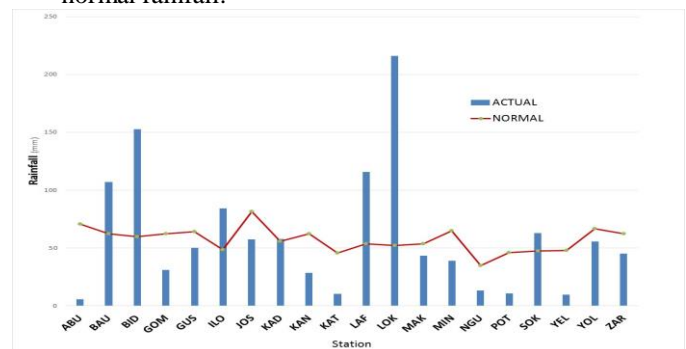


Fig.3A Comparison of Normal with Rainfall in the Northern part of Nigeria

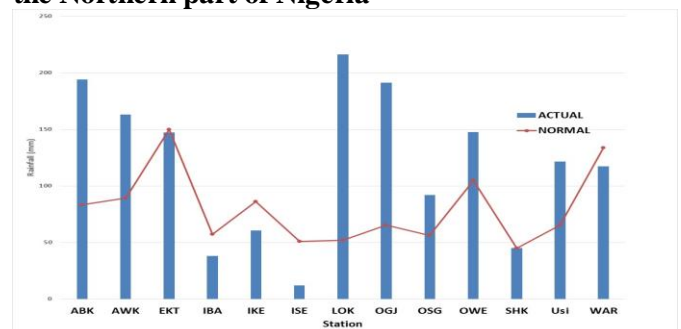


Fig.3A Comparison of Normal with Rainfall in the Southern part of Nigeria

### 1.3 Number of Rain Days.

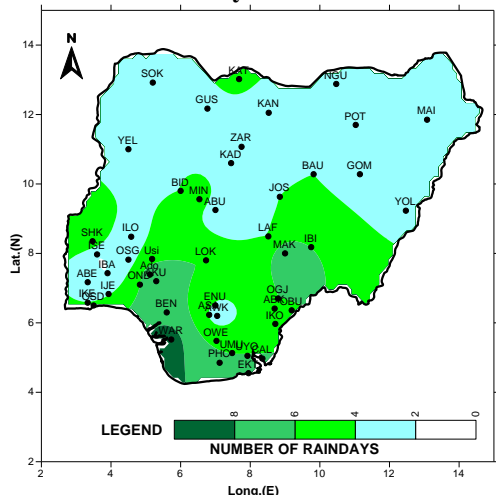


Fig.4: NUMBER OF RAIN DAYS

The rain-days distribution over the country is shown in Fig.4 above and it indicates a good rainfall distribution in the country and it varies from 1 to 8 rain-days in the stations that recorded rain.

### 2.0 SOIL MOISTURE CONDITION

The Soil moisture condition over the north shows deficit moisture conditions over the northeast extending towards Kano and Katsina in the northwest. The central part of the country had normal to surplus soil moisture condition except Abuja and Yelwa with deficit soil moisture condition. The soil moisture indices over the south shows surplus or wet conditions except Iseyin and Shaki with deficit condition as shown in Fig.5 below

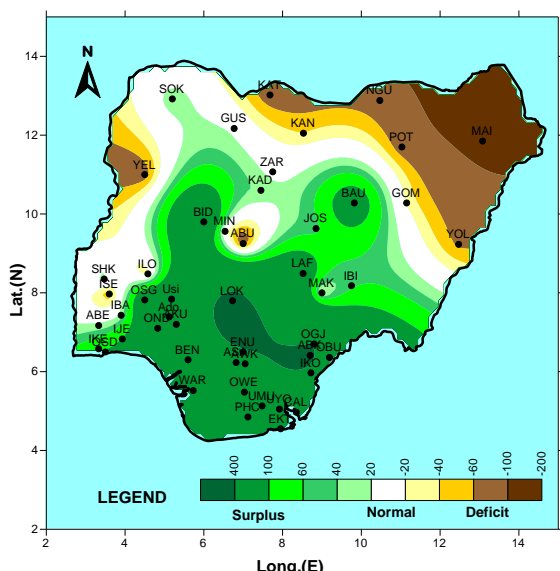


Fig.5: 1<sup>st</sup> DEKAD OF JULY SOIL MOISTURE INDEX (SMI)

### 3.0 MAXIMUM TEMPERATURE TREND

#### 3.1 Maximum Temperature Anomaly

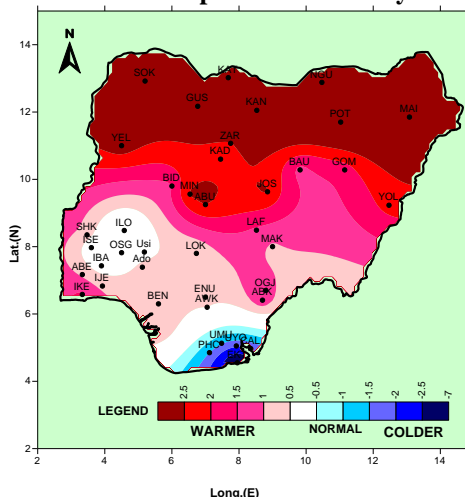


Fig.6: Maximum Temperature Anomaly.

The maximum temperature anomaly analysis for 1<sup>st</sup> dekad of July, 2015 shows warmer than normal temperature over the north and central states. The south also recorded warmer than normal temperature except the inland areas of Oshogbo, Iseyin, Ekiti and Ibadan. The coastal states of Rivers, Akwa-Ibom and Cross River recorded colder than normal temperature extending to Abia and Ebonyi States.

#### 3.2 Maximum Temperature Values.

The actual mean maximum temperature distribution across the country for the 1<sup>st</sup> dekad of July 2015, is shown in Fig.7 below. The northeast recording maximum temperatures of 36°C and above, the northwest recorded 34°C and above, the central states recorded 30°C to 34°C except Jos that recorded 27°C. Most parts of the South recorded 28°C to 32°C maximum temperature values. Nguru recorded the highest maximum temperature value of 39.4°C while the lowest temperature was recorded over Jos with 27°C.

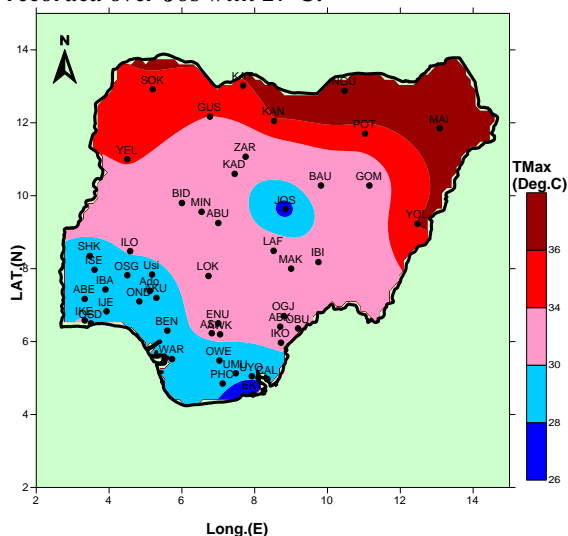


Fig. 7: Mean maximum Temperature

## WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 2 (11 TO 20), OF JULY, 2015

### 4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 17degN and 19.5degN. The northern part of the country is expected to be cloudy with thundery activities; the central part is expected to experience cloudy and thundery conditions. The inland and coastal areas of the South are likely to experience cloudy weather conditions intermitted rainfall.

The northern and the central states are expected to have mean maximum temperatures of the range 26 °C - 36°C, while the mean minimum temperatures will lie between 19°C and 24°C. The mean maximum temperatures over the inland and coastal areas of the South are expected to

be between 28°C and 32 °C, while the mean minimum temperatures will range from 20°C to 24°C.

### 4.2 Agricultural Activity/Outlook

Replanting, weeding and fertilizer application will continue over the Northern and central states. Potatoes harvest and transplant rice transplant will preoccupy farmers in the central states. Harvest of fresh vegetables, cassava, corn and potatoes will continue in the south. **For more information please refer to the 2015 SRP and consult the nearest ADP or Ministry of Agriculture.**

**TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD**

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	DD	RADIATION	MINNA	38.8	6	43	31.9	21.9	188.6	18
ABAKALI	194.2	5	37.8	31.2	23.7	194.7	15.7	NGURU	13.3	4	54.2	39.4	25.8	246.1	20.7
ABUJA	5.5	2	42.1	31.8	22.3	190.3	17.6	OGOJA	191.4	6	38.4	31.4	23.6	195.2	15.9
AWKA	163.2	3	34.3	30.3	23.9	190.8	14.3	OSOGBO	91.8	3	31.3	28.0	22.2	170.7	13.6
BAUCHI	107.1	4	40.8	32.0	22.9	194.1	16.9	OWERRI	147.5	6	37.8	30.8	23.4	194.2	17.1
BIDA	152.8	4	40.1	32.0	23.5	197.5	16.6	POT	10.6	3	45	35.0	24.6	218.2	17.9
EKET	147.1	7	36	27.1	19.3	152.2	16.2	SHAKI	45.2	6	34.4	28.9	22.2	175.5	14.8
GOMBE	31	3	40.6	32.4	23.1	197.3	16.7	SOKOTO	62.7	3	47.2	35.7	24.4	220.7	18.8
GUSAU	50.3	3	44.2	34.0	23.8	208.9	17.9	WARRI	117.3	9	31.2	29.8	24.5	191.4	13
IBADAN	38	2	31.5	28.8	23.1	179.4	13.4	YELWA	9.5	3	43.8	34.3	24.6	214.5	17.6
IKEJA	60.6	4	31.6	30.1	24.5	176.5	13.7	YOLA	55.5	3					
ILORIN	84.3	3	39.6	30.4	21.6	180.2	16.9	ZARIA	45.1	4	41.2	31.3	21.9	186.1	17.4
ISEYIN	12	2	30.6	28.1	22.5	172.7	13.2	USI-EKITI	121.4	7	38.9	28.8	20.1	165.1	17.1
JOS	57.3	4	38	27	17.6	142.8	17.4								
KADUNA	57.9	3	41.7	31.1	21.4	182.2	17.7								
KANO	28.6	2	48.5	35.9	24.2	220.9	19.2								
KATSINA	10.2	5	47.7	35.7	24.3	220.3	19								
LAFIA	115.7	4	39.9	31.7	23.3	195	16.6								
LOKOJA	216.2	6	36.7	31.0	23.7	193.4	15.3								
MAKURDI	43.2	7	39.4	31.2	22.6	188.9	16.5								

Note:  
 Rainfall (mm)  
 PET = Potential Evapotranspiration (mm/decade)  
 TMAX = Maximum Temperature (°C)  
 TMIN = Minimum Temperature (°C)  
 GDD = Growing Degree Day (day)  
 RAD = Radiation (MJ/m<sup>2</sup>/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:

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