



## Agrometeorological Bulletin No.20, Dekad 2, JULY (11 –20) 2015

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### SUMMARY

The rainfall anomaly for the 2<sup>nd</sup> dekad of July, 2015 shows deficit rainfall over the south and northeast of the country. Surplus rainfall was recorded over Abuja, Yelwa, Bauchi and Ogoja. The Inter-Tropical Discontinuity (ITD) was located between latitude 16.8 and 19°N. **The highest rainfall amount for the dekad was recorded over Ogoja with 251.8mm in 10 rain-days, followed by Bauchi with 197.1mm in 7 rain-days and Eket with 177mm in 8 rain-days.** The maximum temperature anomaly analysis for 2<sup>nd</sup> dekad of July, 2015 shows warmer than normal maximum temperature over the entire country except Eket and Calabar axis that recorded colder than normal maximum temperature. The Soil moisture condition over the northeast shows deficit moisture condition.

### 1.0 RAINFALL PATTERN

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

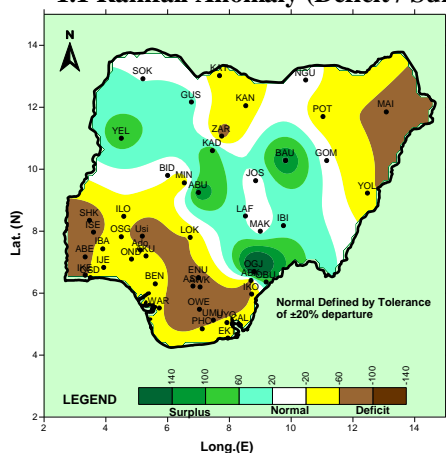


Fig.1: 2<sup>ND</sup> DEKAD JULY, RAINFALL ANOMALIES

The rainfall anomaly for the 2<sup>nd</sup> dekad of July, 2015 shows deficit rainfall over the south except for Ogoja and Obudu that recorded surplus rainfall. The central part of the country had surplus rainfall except Lokoja, Minna and Ilorin. Rainfall deficit still persist in the Northeast. The northwest had normal to surplus rainfall except Katsina, Kano and Zaria that recorded deficit.

#### Rainfall Amounts

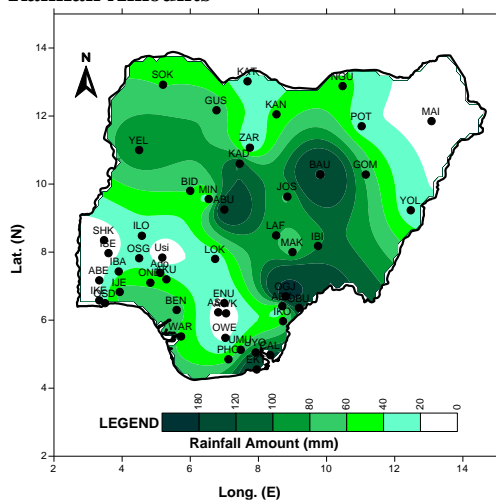


Fig.2: 2<sup>ND</sup> DEKAD JULY, RAINFALL AMOUNT

The actual rainfall amount for the 2<sup>nd</sup> dekad of July, 2015 as shown in Fig.2 shows a good spread of rainfall over the northwest and central states. **The highest rainfall amount for the dekad was recorded over Ogoja with 251.8mm in 10 rain-days, followed by Bauchi with 197.1mm in 7 rain-days and Eket with 177mm in 8 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 normal to above normal rainfall except for the northeast that recorded below normal rainfall. Stations in the south recorded below normal rainfall except Ogoja that recorded above normal rainfall.

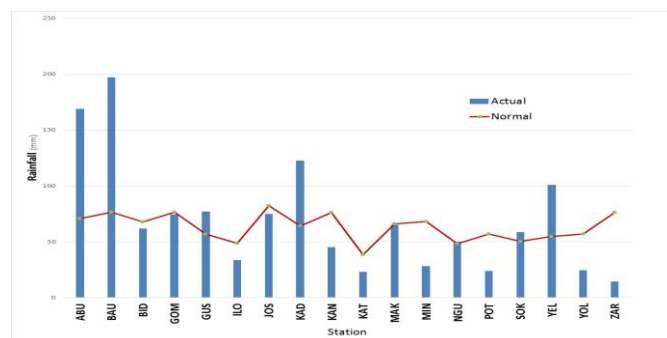


Fig.3A Comparison of Normal with Rainfall in the Northern part of Nigeria

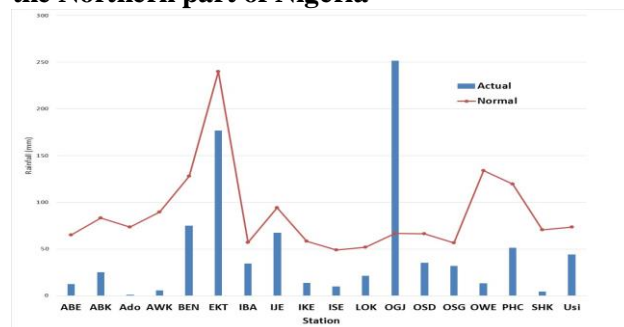


Fig.3A Comparison of Normal with Rainfall in the Southern part of Nigeria

### 1.3 Number of Rain Days.

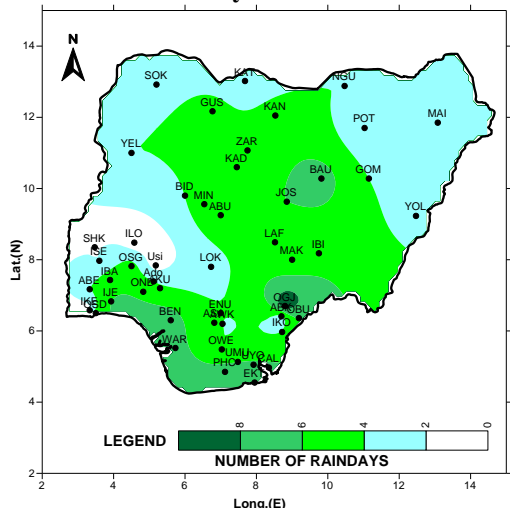


Fig.4: NUMBER OF RAIN DAYS

The rain-days distribution over the country for the 2<sup>nd</sup> decade of July is shown in Fig.4 above and it indicates a good rainfall distribution in the over the northwest and central states and it varies from 1 to 8 rain-days. The distribution over the south was poor.

### 2.0 SOIL MOISTURE CONDITION

The Soil moisture condition over the northeast shows deficit moisture condition. The northwest and central states had normal to surplus soil moisture condition except Katsina, Kano, Lokoja, Ilorin and Zaria with deficit soil moisture condition. The soil moisture indices over the southwest shows deficit condition except Ijebu-Ode and Ondo that shows surplus soil moisture. The southeast shows normal to surplus soil moisture condition except Enugu Abakaliki and Owerri that shows deficit as shown in Fig.5 below

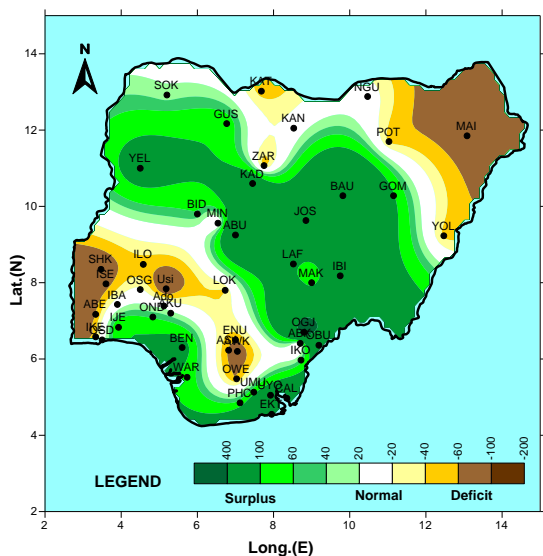


Fig.5: 1<sup>st</sup> DEKAD OF JULY SOIL MOISTURE INDEX (SMI)

### 3.0 MAXIMUM TEMPERATURE TREND

#### 3.1 Maximum Temperature Anomaly

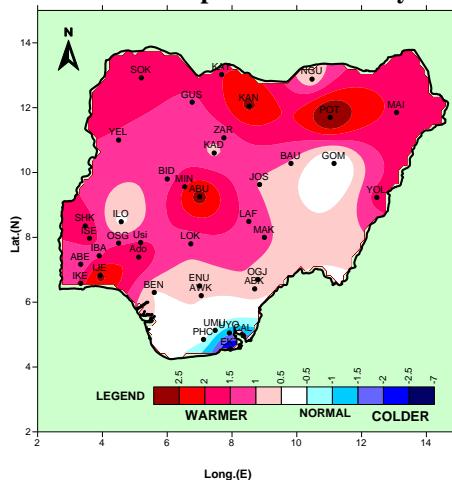


Fig.6: Maximum Temperature Anomaly.

The maximum temperature anomaly analysis for 2<sup>nd</sup> decade of July, 2015 shows warmer than normal maximum temperature over the entire country except Eket and Calabar axis that recorded colder than normal maximum temperature.

#### 3.2 Maximum Temperature Values.

The actual mean maximum temperature distribution across the country for the 2<sup>nd</sup> decade of July 2015, is shown in Fig.7 below. The North recorded maximum temperature of between 30 to 35°C except Kaduna, Lafia and Jos that recorded temperature values below 30°C. The south recorded temperature value ranging from 28 to 32°C except Eket that recorded temperature value lower than 28°C. Nguru recorded the highest maximum temperature value of 35°C while the lowest temperature was recorded over Jos with 25.4°C.

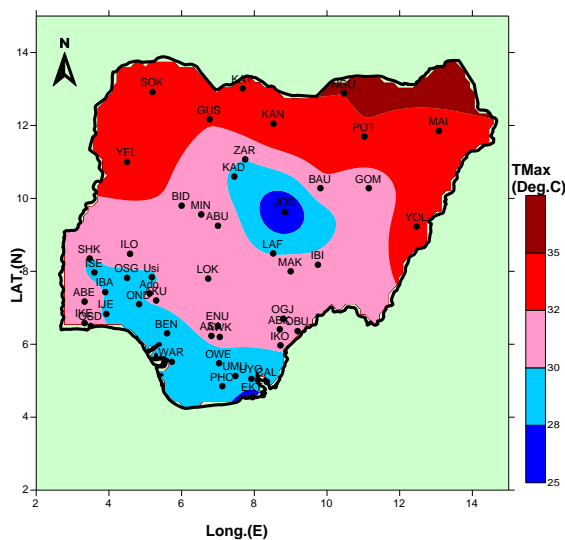


Fig. 7: Mean maximum Temperature

## WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 31), OF JULY, 2015

### 4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 18degN and 20degN. The northern part of the country is expected to be cloudy with thundery activities; the central part is also 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 - 35°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 19°C to 23°C.

### 4.2 Agricultural Activity/Outlook

Replanting of maize, weeding and fertilizer application will continue over the Northern states. Harvest in Maize, Potatoes and vegetables, 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
ABEOK	12.6	4	35.9	30.8	24.1	194.2	14.9
ABAKALIKI	25	3	38.3	30.9	23.2	190.3	16
ABUJA	169.1	6	44.5	32.1	21.5	187.8	18.7
AWKA	5.7	4	36	30.3	23.5	189.1	15.1
BAUCHI	197.1	7	41.8	31.6	22.2	188.8	17.5
BENIN	75	7	31.2	29.3	24.1	187.1	13.1
BIDA	61.6	4	38.8	31.8	24.0	198.8	16
EKET	177	8	38.1	27.6	18.9	152.4	17.1
GOMBE	74.6	4	36.2	30.0	22.7	183.5	15.3
GUSAU	76.9	5	41	32.2	23.2	196.7	17
IBADAN	34.6	5	36.3	30.0	22.9	184.5	15.3
IJEBU	67.3	6	33.8	29.8	23.7	187.2	14.2
IKEJA	13.8	1	34	30.1	24.0	190.4	14.2
ILORIN	33.5	1	40.2	31.1	22.5	188	16.9
ISEYIN	10	2	37.4	29.8	22.2	180.3	15.9
JOS	74.9	6	34.5	25.4	17.6	134.8	16
KADUNA	122.8	4	39	29.7	20.9	173	16.8
KANO	45.2	5	46.7	34.7	23.7	211.9	18.8
KATSINA	22.9	2	47.2	34.1	22.5	203.3	19.3
LOKOJA	21.4	3	36.7	31.6	24.6	200.8	15
MAKURDI	65.2	4	39.3	31.4	23.4	194.3	16.3
MINNA	28	5	39	31.3	23.2	192.7	16.2
NGURU	50.2	4	49.2	35.0	22.5	207.6	19.9
OGOJA	251.8	10	38.9	31.1	23.2	191.7	16.2
OSHODI	35.1	5	34.8	30.7	24.3	195	14.4
OSOGBO	31.8	5	37.3	29.5	21.8	176.8	16
OWERRI	13.3	4	34	29.6	23.5	185.2	14.4
PHC	51.3	7	31.1	28.6	23.3	179.5	13.3
POT	23.6	2	46	34.8	24.4	216.2	18.4
SHAKI	4.3	2	38.1	30.0	22.1	180.4	16.2
SOKOTO	58.5	3	45.5	34.7	24.2	214.4	18.3
YELWA	100.8	4	41.1	32.9	24.3	205.8	16.7
YOLA	24.4	3	46.4	33.6	22.5	200.4	19
ZARIA	14.5	4	38.1	30.0	21.8	179.1	16.2
USI-EKITI	44	4	39.8	29.7	20.8	172.3	17.2
ADO-EKITI	1.0	1	37	29.7	22.2	180	15.8

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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