



## Agrometeorological Bulletin No.21, Dekad 3, JULY (21 –31) 2015

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### SUMMARY

The 3<sup>rd</sup> dekad of July, 2015 shows signs of the little dry season in the southwest with deficit rainfall anomaly and raindays of between 1 to 2 days. This marks the end of the first season for the bimodal rainfall region. Surplus rainfall was recorded over Abakiliki, Enugu and Awka. The Inter-Tropical Discontinuity (ITD) was located between latitude 17 and 19°N. **The highest rainfall amount for the dekad was recorded over Awka with 382mm in 8 rain-days, followed by Eket with 310.2mm in 10 rain-days and Ogoja with 216.8mm in 6 rain-days.** The maximum temperature anomaly analysis for 3<sup>rd</sup> dekad of July, 2015 shows normal to colder than normal maximum temperature over the entire country except Potiskum and Lagos axis that recorded warmer than normal maximum temperature. The soil moisture indices over the northeast and the southwest shows deficit condition.

### 1.0 RAINFALL PATTERN

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

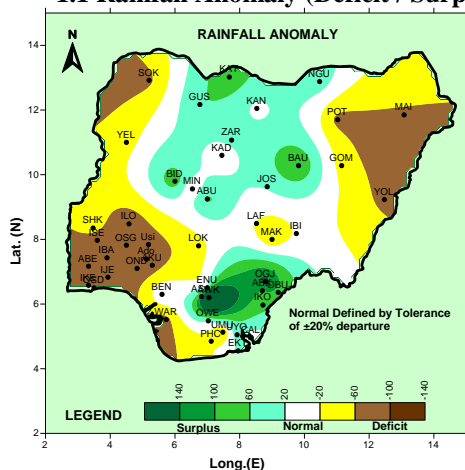


Fig.1: 3<sup>RD</sup> DEKAD JULY, RAINFALL ANOMALIES

The 3<sup>rd</sup> dekad of July, 2015 shows deficit rainfall anomaly over the southwest extending to Warri and Port-Harcourt in the south-south. The northeast also had deficit except Nguru and Bauchi that recorded surplus rainfall. The Northwest recorded normal to surplus rainfall except Sokoto and Yelwa that had deficit rainfall. The central part of the country had normal to surplus rainfall except Lokoja, Makurdi and Ilorin. Surplus rainfall was recorded over Abakiliki, Enugu and Awka.

#### Rainfall Amounts

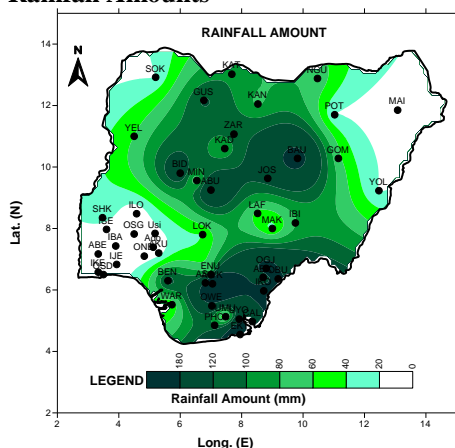


Fig.2: 3<sup>RD</sup> DEKAD JULY, RAINFALL AMOUNT

The actual rainfall amount for the 3<sup>rd</sup> dekad of July, 2015 as shown in Fig.2 indicates a good spread of rainfall over the north, southeast and south-south states. Rainfall was however poorly distributed in the southwest. **The highest rainfall amount for the dekad was recorded over Awka with 382mm in 8 rain-days, followed by Eket with 310.2mm in 10 rain-days and Ogoja with 216.8mm in 6 rain-days.**

#### 1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 3<sup>RD</sup> DEKAD OF JULY, 2015

The charts below shows the comparison of the actual rainfall amounts measured against the normal during the dekad is shown in Fig.3A and Fig.3B. The stations in the north recorded normal to above normal rainfall except for the northeast that recorded below normal rainfall. Stations in the southwest recorded below normal rainfall.

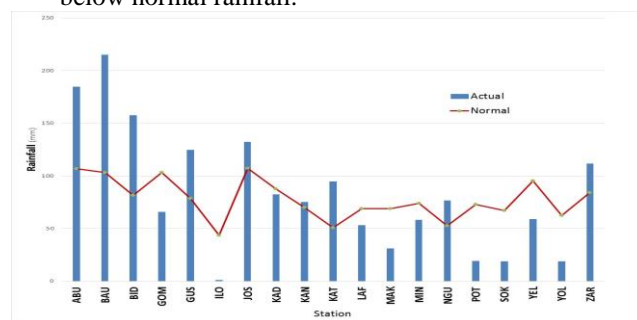


Fig.3A Comparison of Normal with Rainfall in the Northern part of Nigeria

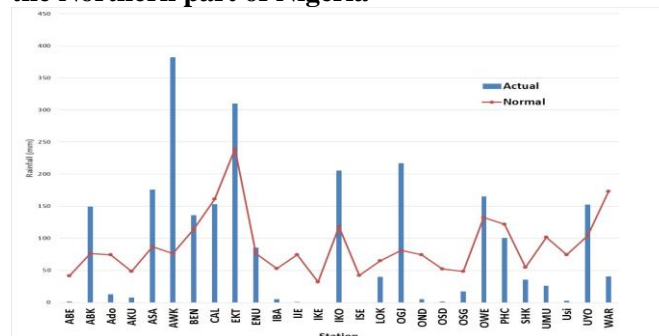


Fig.3B Comparison of Normal with Rainfall in the Southern part of Nigeria

### 1.3 Number of Rain Days.

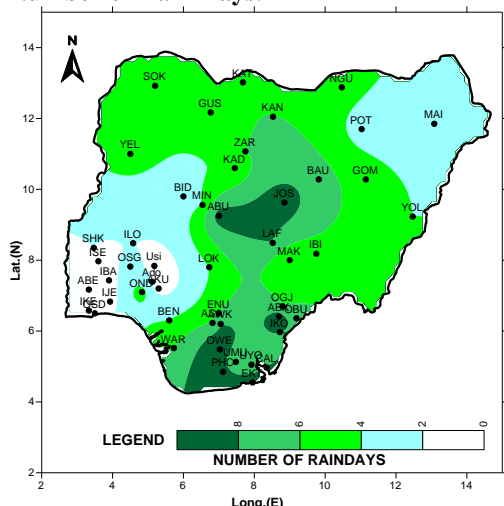


Fig.4: NUMBER OF RAIN DAYS

The rain-days distribution over the country for the 3<sup>rd</sup> dekad of July is shown in Fig.4 above and it indicates a good rainfall distribution in the over the country except the southwest with between 1 and 2 raindays.

### 2.0 SOIL MOISTURE CONDITION

The Soil moisture condition over the northeast shows deficit moisture condition. The northwest and central states had surplus soil moisture condition except Sokoto and Ilorin with deficit soil moisture condition. The soil moisture indices over the southwest shows deficit condition. The southeast shows surplus soil moisture condition as shown in Fig.5 below

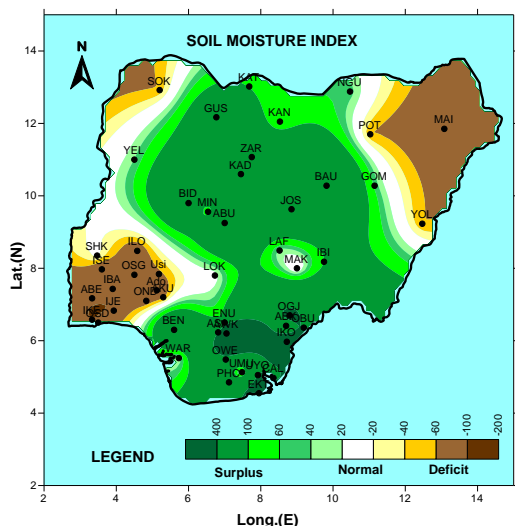


Fig.5: 1<sup>st</sup> DEKAD OF JULY SOIL MOISTURE INDEX (SMI)

### 3.0 MAXIMUM TEMPERATURE TREND

#### 3.1 Maximum Temperature Anomaly

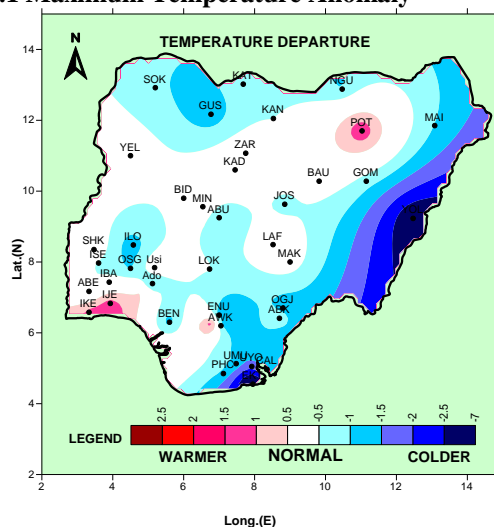


Fig.6: Maximum Temperature Anomaly.

The maximum temperature anomaly analysis for 3<sup>rd</sup> dekad of July, 2015 shows normal to colder than normal maximum temperature over the entire country except Potiskum and Lagos axis that recorded warmer than normal maximum temperature.

#### 3.2 Maximum Temperature Values.

The actual mean maximum temperature distribution across the country for the 3<sup>rd</sup> dekad of July 2015, is shown in Fig.7 below. The North recorded maximum temperature of between 30 to 34°C except Kaduna, Lafia Minna, Abuja, Ilorin and Jos that recorded temperature values below 30°C. The south recorded temperature value ranging from 27 to 30°C except Eket. Nguru recorded the highest maximum temperature value of 33.5°C while the lowest temperature was recorded over Jos with 23.8°C.

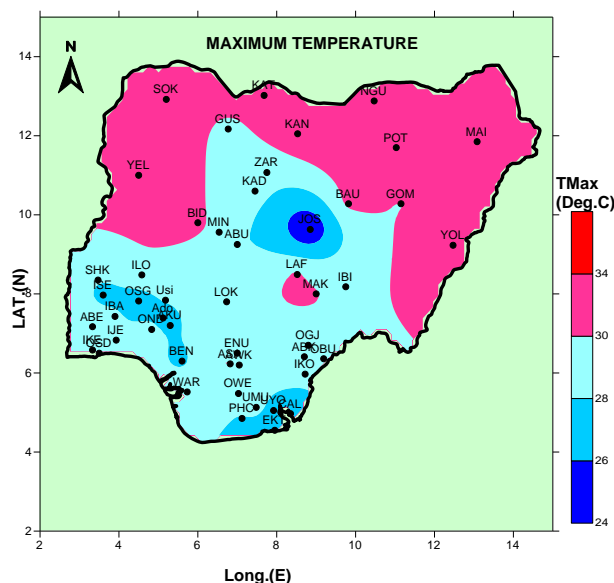


Fig. 7: Mean maximum Temperature

## WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF AUGUST, 2015.

### 4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 19degN 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 Southwest may experience start to experience the little dry season

The northern and the central states are expected to have mean maximum temperatures of the range 23 °C - 34 °C, while the mean minimum temperatures will lie between

17 °C and 23 °C. The mean maximum temperatures over the inland and coastal areas of the South are expected to be between 27 °C and 30 °C, while the mean minimum temperatures will range from 18 °C to 23 °C.

### 4.2 Agricultural Activity/Outlook

Harvest of maize and new yam preoccupy most farmers in the south and central states. 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. **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	RAINDA Y	PET	TMA X	TMIN	DD	RADIATIO N
MAKURDI	31.3	4	40.5	30.1	23.1	204.2	15.5
MINNA	58.4	4	39.1	29.7	23.1	202.4	15
NGURU	76.8	5	50.5	33.5	22.9	223	18.8
OGOJA	216.8	6	37.5	29.0	22.8	196.9	14.5
ONDO	4.9	5	38.3	28.7	22.1	191.5	15
OSHODI	1.4	1	38.3	29.9	23.7	206.5	14.6
OSOGBO	17.5	3	36.8	27.0	20.6	174	14.8
OWERRI	165	10	36.2	28.3	22.4	190.5	14.2
PHC	100.8	9	34	27.9	22.8	191.2	13.3
POT	19.4	3	48.3	32.7	23.0	218.2	18.1
SHAKI	35.7	2	39.5	28.2	20.8	181.5	15.7
SOKOTO	19	4	45.6	31.9	23.0	214.1	17.2
UMUAHIA	26.2	6	36	28.7	23.0	196.1	14
UYO	152.6	6	29.8	27.3	23.3	190	11.7
WARRI	40.8	6	35.5	29.0	23.5	200.5	13.7
YELWA	59.1	5	43	31.4	23.6	214.6	16.2
YOLA	19	4	46	32.2	23.3	217.2	17.3
ZARIA	111.6	6	39.6	28.8	21.6	189.3	15.6
USI-EKITI	2.6	2	38.5	27.0	19.8	169.1	15.6
ADO-EKITI	13	1	39.1	28.2	21.1	183.2	15.5
ABEOK	1.4	1	38.8	29.3	25.0	198.1	16.5
ABAKALIK I	149.5	9	38.3	29.2	25.2	198.5	16.3
ABUJA	184.7	9	39.1	28.2	23.2	182.8	17.1
AKURE	7.7	1	36.6	27.6	23.7	182.2	16
ASABA	175.9	6	42	30.3	24.9	202.9	17.7
AWKA	382	8	36.4	28.8	25.2	196.6	15.5
BAUCHI	215.2	7	45.5	30.5	23.4	196.8 5	19.4
BENIN	136	4	31.4	27.7	25.5	191.4	13.5
BIDA	157.6	3	39.4	30.2	25.9	207.5	16.5
CALABAR	153.4	8	33.5	27.5	24.6	186.3	14.5
EKET	310.2	10	42.2	26.7	19.7	157.5	19.3
ENUGU	85.2	6	34.4	28.5	25.6	196.7	14.7
GOMBE	65.8	5	42.6	29.9	24.2	197.5	18
GUSAU	124.7	5	38.8	29.5	24.9	198.6	16.5
IBADAN	5.2	1	37.5	28.4	24.1	188.4	13.6
IJBEBU	0.6	1	36	28.4	24.8	191.8	15.5
IKEJA	0	0	40.1	29.7	24.9	199.8	17.1
IKOM	205.7	8	34.6	28.3	25.2	193.8	14.9
ILORIN	1.2	2	43	29.5	23.5	192.1	18.5
ISEYIN	0	0	37.8	27.5	20.7	177.5	15.1
JOS	132.5	9	33.8	23.8	17.6	140.1	14.5
KADUNA	82.4	4	42.6	28.9	20.5	184	16.9
KANO	75.4	6	45.7	31.5	22.4	208.2	17.4
KATSINA	94.8	6	47.7	31.5	21.4	202.9	18.4
LAFIA	53.3	8	40.9	30.3	23.1	205.8	15.7
LOKOJA	39.8	4	38.6	30.0	23.7	207.5	14.7

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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