

## Agrometeorological Bulletin No.18, Dekad 3, June (21 –30) 2014

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### SUMMARY

The Inter Tropical Discontinuity (ITD) continued to be above the country and activities of rains had spread all over the country with less intensity in Borno state. Normal to above-normal rainfall was recorded across the country except for the extremes of north-west and north-east that had normal to below normal indicating normal to deficit rainfall anomalies. Maiduguri and environs continued to experience high maximum temperatures due to lack of adequate convective activity. The highest rainfall amount was recorded at Eket with 304.9mm in 8 rain-days, however, good rainfall amounts were equally recorded at Uyo and Port-Harcourt. Preparation and planting for the new season continued in the extreme northern part of the country while planting of cereal and tuber/root crops continued in the central states. In the South, harvesting of new corn/maize and vegetables and weeding of field crops and continued.

### 1.0 RAINFALL PARTERN

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

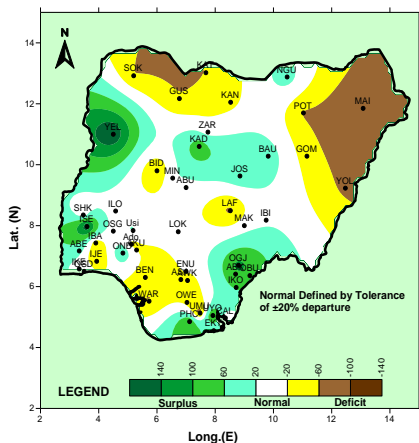


Fig.1: 3<sup>RD</sup> DEKAD RAINFALL ANOMALIES

Rainfall anomalies over the country are shown in Fig.1 above and the map indicates that most of the stations at the extreme North recorded deficit rainfall anomalies, while the central part remained normal with mild deficits over Lafia, Jos and Bida. However, Yelwa in the North, Iseyin in the West and Ikom in the East recorded surplus rainfall anomalies.

#### 1.2 Rainfall Amounts

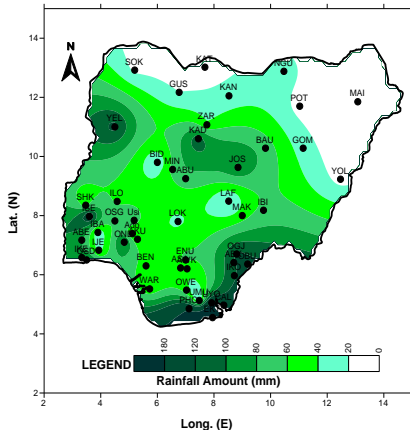
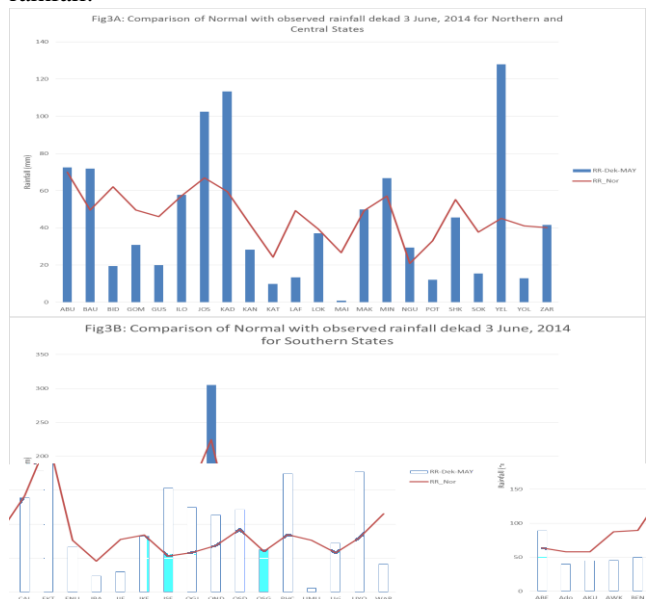


Fig.2 above shows the actual rainfall amount measured over the country for the dekad. Stations across the country recorded moderate to good rainfall except Maiduguri and Kano. The highest rainfall amount was recorded over Eket with 304.9mm in 8 rain-days, followed by Uyo and Port-Harcourt with values of 177.3 in 6 rain-days and 174.4mm in 3 rain-days respectively.

#### 1.3 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 3<sup>RD</sup> DEKAD OF JUNE, 2014.

The comparison of the actual rainfall amounts measured and the normal (1981 – 2010) during the dekad over the northern and southern parts of the country is shown in Fig.3A and Fig.3B below. Above normal condition was experienced over Bauchi, Jos, Kaduna, Minna and Yelwa in the North (Fig.3A). Most stations in the South in Fig.3B had above normal rainfall except Umuahia, Warri, Ibadan, Ijebu, and Akure which recorded below normal rainfall.



### 1.4 Number of Rain Days.

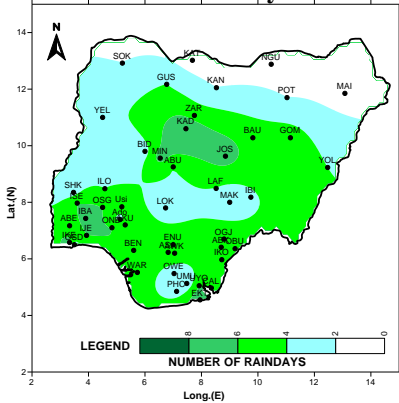


Fig.4: NUMBER OF RAIN DAYS

The Fig. 4 above is the distribution of rainfall across the country and it shows that most stations (28 in number) in the country recorded 3 - 6 rain-days which revealed a good representative and distribution of rains and favoured crop growth and development. However, 6 stations had 7 - 8 rain-days while only 2 stations had 1 rain-day.

### 2.0 SOIL MOISTURE CONDITION

Fig. 5 below shows the soil moisture indices across the country and indicates that the north-eastern parts of the country were under deficit soil moisture conditions, however, most stations in the South and central states had neutral/normal to surplus soil moisture conditions with mild deficit recorded over Lafia and Bida.

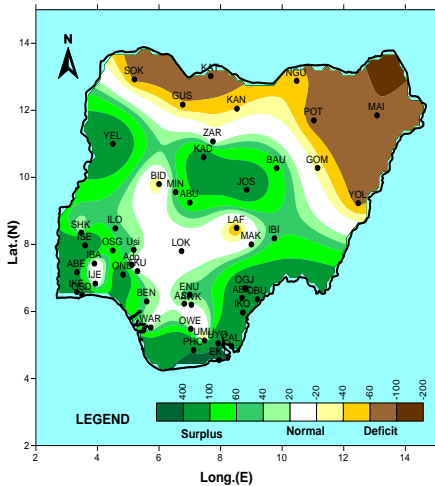


Fig.5: 3<sup>RD</sup> DEKAD OF JUNE SOIL MOISTURE INDEX (SMI)

### 3.0 MAXIMUM TEMPERATURE TREND

#### 3.1 Maximum Temperature Anomaly

Fig.6 below shows the maximum temperature anomaly across the country. It indicates that Maiduguri, Potiskum, Bida and Lafia had warmer than normal maximum temperature. Yola, Shaki and Eket recorded colder than normal maximum temperature anomalies.

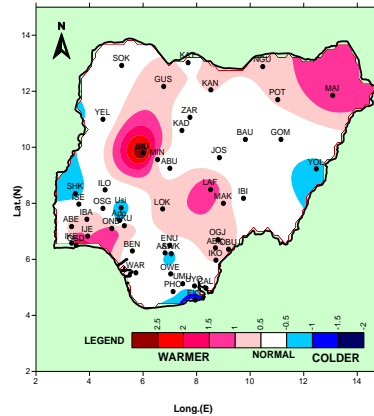


Fig.6: Maximum Temperature Anomaly.

#### 3.2 Maximum Temperature Values.

The actual mean maximum temperature distribution across the country is shown in Fig.7 below and it reveals that the extreme North of the country recorded maximum temperatures in the range of 36°C to 42°C while stations in the South and central states recorded 32°C and below. The lowest maximum Temperature of 26.2°C was recorded over Jos.

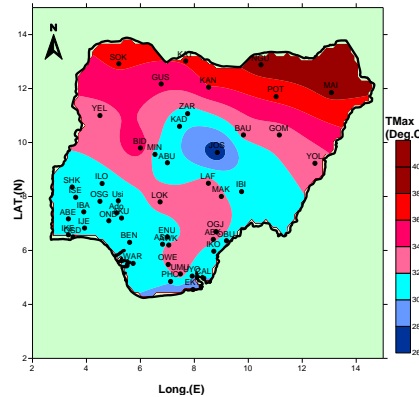


Fig. 7: Mean maximum Temperature Nigeria

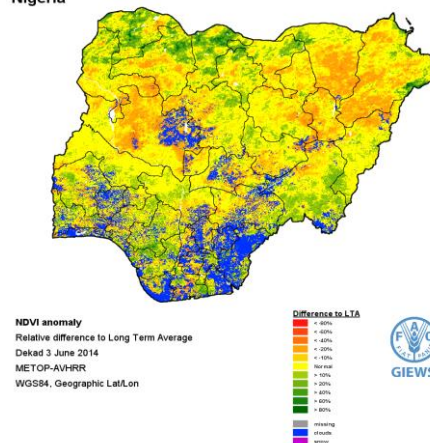


Fig.8: 3<sup>rd</sup> dekad of June Normalized Differential Vegetative Index (NDVI). It revealed that apart from the South that had good vegetation, the north-western had beginning to receive rains hence the fairly good vegetation.

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

### 4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is expected to oscillate between latitudes 18deg.N and 22deg.N. This situation is expected to place the northern part of the country under Cloudy weather conditions with isolated rains/thunderstorms. The central part is expected to be cloudy with occasional thunderstorm/rains. The inland and coastal areas are expected to be cloudy with rains/thunderstorms.

The mean maximum temperature in the North and the central will range from 27°C to 41°C, while the mean minimum temperature will be between 22°C and 27°C. In the inland and coastal areas, the mean maximum

temperatures are expected to lie between 28°C and 31°C, while the mean minimum temperature will range from 22°C to 24°C.

### 4.2 Agricultural Activity/Outlook

While planting of Millet is expected to continue in the extreme North, the central and southern states will engage in weeding of cropped fields and planting of new crops. The on-set of rains had been established over the country except Maiduguri in the north-east. Farmers are advised to use the NiMet's 2014 Seasonal Rainfall Prediction (SRP) for good agricultural planning and increased yields and other relevant publications like the Drought and Flood Monitor bulletin and the services of extension workers..

**TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD**

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOK	89	4	3.8	31.8	24.1	199.2	15.9
ABUJA	72.5	4	3.9	31	22.5	187.7	16.6
AKURE	45	6	3.9	30.7	22.4	185.4	16.5
ASABA	-	-	-	-	-	-	-
AWKA	45.8	5	4	32.2	23.8	199.8	16.5
BAUCHI	71.8	5	4.1	32.6	23.5	200.5	16.9
BENIN	50.2	5	3.5	30.5	23.9	191.6	14.7
BIDA	19.5	3	3.9	35.3	24.9	221	20
CALABAR	139.4	5	3.7	30.1	22.6	183.3	15.6
EKET	304.9	8	3.7	28	19.8	158.7	16.5
ENUGU	66.5	5	4.2	31.1	21.4	182.8	17.8
GOMBE	30.9	5	4.3	32.8	23	198.8	17.6
GUSAU	18.9	4	4.6	34.6	23.7	211.9	18.5
IBADAN	24.1	7	3.7	31	23.7	193.8	15.3
IJEBU	30.5	6	3.7	31	23.6	192.7	15.5
IKEJA	82.4	7	3.4	30	23.8	189	14.3
IKOM	-	-	-	-	-	-	-
ILORIN	57.7	4	3.9	30.7	22.4	185.7	16.4
ISEYIN	153.4	6	3.8	29.9	22	179.2	16
JOS	102.4	7	3.8	26.2	16.6	133.6	17.5
KADUNA	113.3	8	4.2	30.6	20.7	176.5	17.8
KANO	28.2	2	4.8	36	24.3	221.4	19.2
KATSINA	9.9	1	4.7	36.2	25.4	227.9	18.4
LAFIA	13.4	4	4.3	33.1	23.5	202.8	17.6
LOKOJA	37	3	4	32.5	24.3	203.9	16.3
MAIDU	0.9	1	5	38.6	27.5	250.6	18.7
MAKURDI	49.9	2	4.3	32.2	22.2	191.9	18
MINNA	66.7	7	4.1	31.4	22.3	188.8	17.1
NGURU	29.4	1	5.3	39	26.1	245.3	20.1
OGOJA	125.4	6	4.3	32.3	22.8	195.8	17.6
ONDO	113.7	6	3.8	31	23.2	191.1	15.9
OSHOADI	121.6	3	-	32.6	25.6	210.7	16.5
OSOGBO	62.8	6	3.7	30.2	22.6	183.8	15.7
OWERRI	-	-	-	-	-	-	-
PHC	174.4	3	3.6	30.2	23.3	187	14.9
POT	12.1	2	4.9	36.6	25.2	229	19
SHAKI	45.6	3	3.9	30.7	22.2	184.9	16.6
SOKOTO	15.4	2	4.6	36.4	25.9	231.2	18.1
UMUJAHIA	6.4	2	-	33.4	23.3	203.7	20.1
UYO	177.3	6	3.6	30.4	23.4	188.7	15.1
WARRI	41.6	5	3.7	31.2	24	195.7	15.4
YELWA	127.9	4	4.1	33.2	24.4	207.9	16.6
YOLA	12.8	4	3.9	32.9	25.1	209.9	15.7
ZARIA	41.6	5	4.2	31	20.6	177.8	18.1
OBUDU	-	-	-	-	-	-	-
IBI	-	-	-	-	-	-	-
ADO-EKITI	44.1	3	-	31.1	21.8	194.7	19
USI-EKITI	56.2	3	-	31.7	18.2	169.6	23
CALARMA	-	-	-	-	-	-	-

Note:

RAINFALL (mm)  
 PET(mm/day)  
 TMAX (°C)  
 TMIN (°C)  
 GDD (day)  
 RAD (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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