

## Agrometeorological Bulletin No.14, Dekad 2, MAY (11 –20) 2015

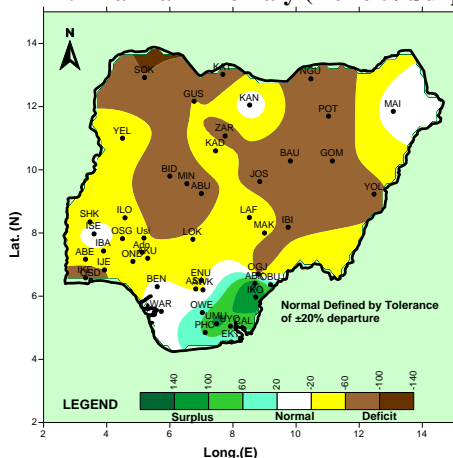
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### SUMMARY

The 2<sup>nd</sup> dekad of May shows the strong effect of this year's El-Niño on the country, with the deficit rainfall anomaly recorded by most stations in the country. The dekad shows that the Inter-Tropical Discontinuity (ITD) continue to oscillate between latitude 12.5°N to 14.5°N, a deficit Soil moisture condition over the country except the southern part which had surplus soil moisture conditions. The highest rainfall amount was recorded over Umuahia with 177.9mm in 8 rain-days, followed by Abakaliki with 158.8mm in 5 rain-days and Eket with 152.4mm in 7 rain-days. The country experienced warmer than normal Maximum temperature anomalies except for Ekiti and Eket that recorded colder than normal maximum temperature anomalies. The delayed onset as predicted in the 2015 SRP is evident with most part experiencing late onset thereby delaying preparation for the new rainy season in the northern part of the country, planting of cereal and tuber crops is expected to start in the central states of the country. In the South weeding and fertilizer application is expected to continue.

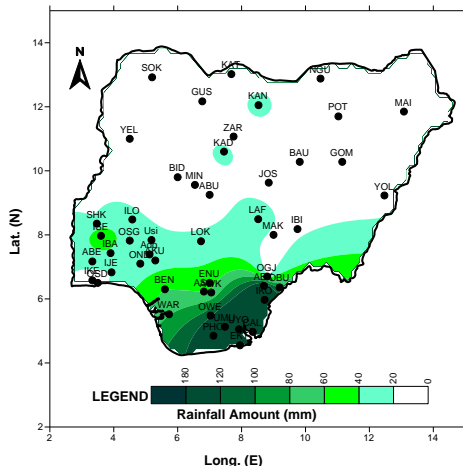
### 1.0 RAINFALL PATTERN

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



**Fig.1: 2ND DEKAD MAY, RAINFALL ANOMALIES**  
The whole of the country is still experiencing deficit in rainfall except the southeast. This situation persist despite the attainment of onset in most southern states as shown in Fig.1 above and it indicates the strong effect of El-Niño over the country.

#### Rainfall Amounts



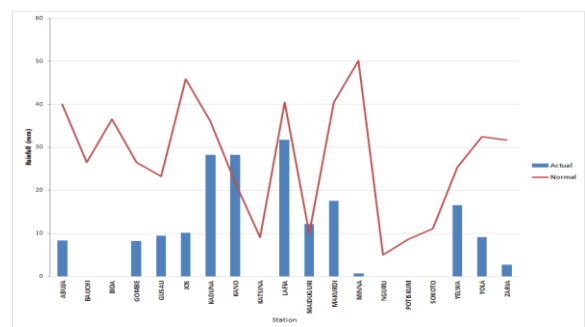
**Fig.2: 2ND DEKAD MAY, RAINFALL AMOUNT**

Fig.2 above highlights the actual rainfall amount and it indicates that only the southern states recorded 20mm of

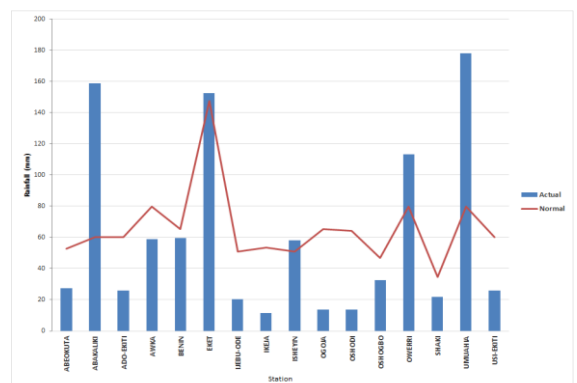
rainfall and above. The highest rainfall amount was recorded over Umuahia with 177.9mm in 8 rain-days, followed by Abakaliki with 158.8mm in 5 rain-days and Eket with 152.4mm in 7 rain-days.

#### 1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 2ND DEKAD OF MAY

The comparison of the actual rainfall amounts measured and normal/long term averages during the dekad is shown in Fig.3A and Fig.3B below over the northern and southern parts of the country. All the stations in the northern part of the country recorded below normal rainfall amount.



**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.

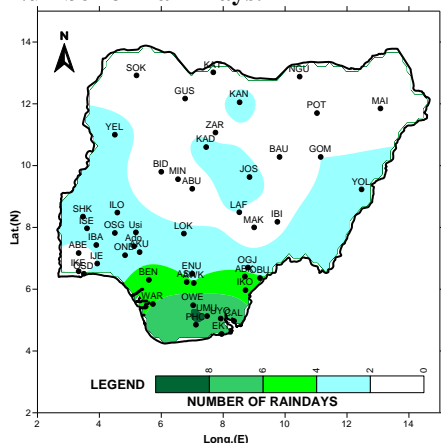


Fig.4: NUMBER OF RAIN DAYS

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

### 2.0 SOIL MOISTURE CONDITION

Fig.5 below highlights the soil moisture indices across the country and it showed that the most part of the country had deficit soil moisture conditions except the southern parts of the country which showed neutral to surplus soil moisture conditions.

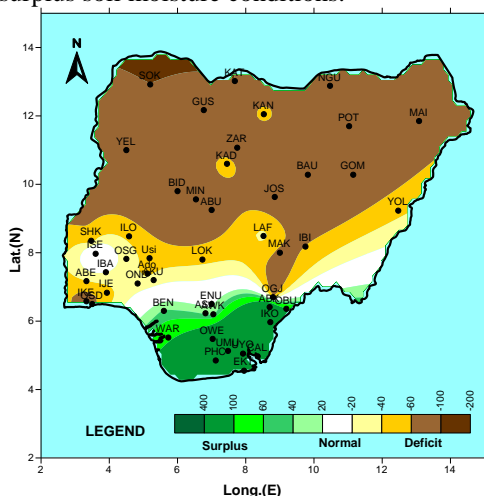


Fig.5: 2ND DEKAD OF MAY SOIL MOISTURE INDEX (SMI)

### 3.0 MAXIMUM TEMPERATURE TREND

#### 3.1 Maximum Temperature Anomaly

Fig.6 below indicates the maximum temperatures anomalies over the country and it indicated that most parts of the country had warmer than normal maximum temperature anomalies, except Ekiti and Eket which had colder than normal maximum temperature anomalies

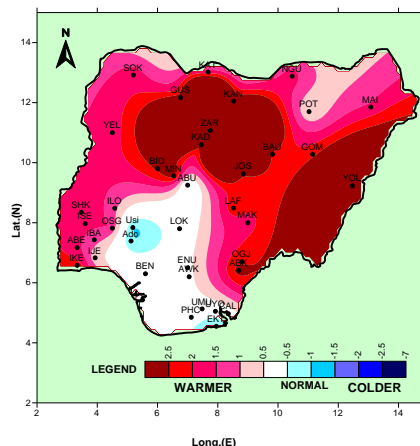


Fig.6: Maximum Temperature Anomaly.

#### 3.2 Maximum Temperature Values.

Actual mean maximum temperature distribution across the country is depicted in Fig.7 below and it shows that the extreme north recorded maximum temperatures of 40°C and above, the central states recorded 36°C and above except Jos, Abuja, Ilorin and Lokoja. Most parts of the South recorded 30°C to 34°C maximum temperature values. Nguru recorded the highest value of 41.8°C while Eket recorded 30.1°C.

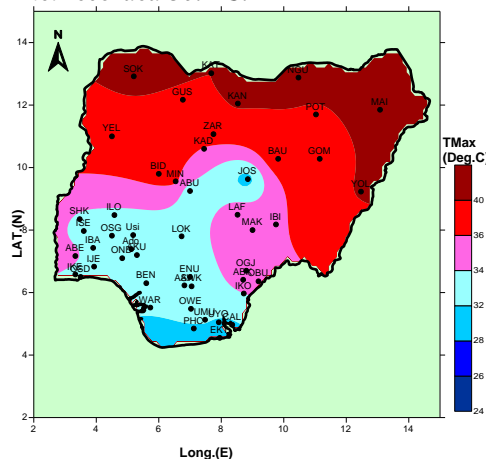


Fig. 7: Mean maximum Temperature

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

#### 4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 14.5degN and 15.5degN. The northern part of the country is expected to be sunny and partly cloudy; the central part is expected to experience cloudy conditions. The inland and coastal areas of the South are likely to experience cloudy weather conditions with localized rain.

The northern and the central states are expected to have mean maximum temperatures of the range 34 °C - 40°C, while the mean minimum temperatures will lie between

22°C and 27°C. The mean maximum temperatures over the inland and coastal areas of the South are expected to be between 30°C and 36 °C, while the mean minimum temperatures will range from 20°C to 24°C.

crops and tubers such as maize and yam is expected to begin in the central parts of the country. In the South weeding and fertilizer application is expected to continue. **For more information please refer to the 2015 SRP.**

#### 4.2 Agricultural Activity/Outlook

Preparation for the new rainy season is expected to start in the northern part of the country, while planting of cereal

**TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD**

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOK	27.3	1	45.5	34.5	25	217.5	18.2
ABAKALIKI	158.8	5	49.7	34.8	23.4	210.7	20.1
ABUJA	8.3	1	44.3	33	23.6	203	18.2
AWKA	58.9	4	45.1	32.6	22.8	197.1	18.6
BAUCHI	0	0	53.1	38.3	26.3	243.2	20.3
BENIN	59.6	5	41.9	32.4	24.0	202.1	17.1
BIDA	0	0	50.4	36.9	25.9	234.4	19.6
EKET	152.4	7	43.8	30.1	19.9	170	19
GOMBE	8.2	2	54.3	38.2	25.5	238.2	20.9
GUSAU	9.5	1	54	39.5	27.2	253.5	20.3
IJEBU	20.2	2	40.6	32.3	24.5	204.1	16.6
IKEJA	11.5	2	43.3	33.5	24.9	212.2	17.5
ISEYIN	58.1	4	46.4	33.1	22.7	199	19.1
JOS	10.1	3	45.4	31	19.9	174.3	19.6
KADUNA	28.2	3	51.7	35.9	23.4	216.7	20.7
KANO	28.2	3	58.1	40.5	23.4	255.1	21.8
KATSINA	0	0	55.6	40.0	27.0	255	20.9
LAFIA	31.7	2	47.7	35.6	25.5	225.4	18.8
MAIDU	12.2	1	57.8	41.4	28.0	266.8	21.3
MAKURDI	17.6	1	48.6	35.0	24.2	216.1	19.5
MINNA	0.7	1	51.6	36.5	24.6	225.7	20.3
NGURU	0	0	XX	41.8	XX	XX	XX
OGOJA	13.8	3	49.1	35.0	24.0	214.7	19.7
OSHODI	13.8	2	41.5	33.5	25.7	216.2	16.6
OSOGBO	32.6	3	45.3	32.8	22.8	198.3	18.7
OWERRI	113.1	8	45.6	32.6	22.3	194.2	19
POT	0	0	56.6	39.3	25.6	244.2	21.7
SHAKI	21.9	4	46.9	33.7	23.1	203.9	19.2
SOKOTO	0	0	56	40.9	27.9	263.9	20.7
UMUAHIA	177.9	8	45.5	32.4	22.2	193.2	18.9
YELWA	16.5	3	50.9	38.1	27.2	246.5	19.4
YOLA	9.1	3	xx	40.4	XX	XX	XX
ZARIA	2.7	1	53.9	37.2	24.1	226.4	21.2
USI-EKITI	25.8	3	46.5	32.3	21.4	188.6	19.6
ADO-EKITI	25.8	3	47.4	32.3	21.0	186.3	20

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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