

## hNIGERIAN METEOROLOGICAL AGENCY 33 POPE JOHN PAUL II STREET, MAITAMA DISTRICT, P.M.B. 615, GARKI, ABUJA, NIGERIA

## Agrometeorological Bulletin No.22, Dekad 1, August (1 – 10) 2011

## **SUMMARY**

The 1<sup>st</sup> dekad of August 2011 witnessed light to moderate rains across the country with reduced rainfall activities (August break) in the southwest. Surplus to normal soil moisture conditions were observed across the country except for few areas such as Sokoto, Kaduna, Potiskum, Yola and parts of the southwest which recorded deficits. Most parts of the country had normal temperatures while warmer than normal temperatures persisted along the extreme north (Yelwa, Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, Maiduguri and Yola). However, colder than normal temperatures were observed in and around Jos, Shaki, Eket and Calabar. Temperatures below 32 Deg C were recorded in most parts of the country while a few areas along the extreme north(Sokoto, Nguru and Maiduguri had above 32 Deg C. Harvest of maize, cassava, fruity vegetables and new yams remained the dominant field activity during the dekad.

#### 1.0 RAINFALL TREND

### 1.1 Rainfall Anomaly

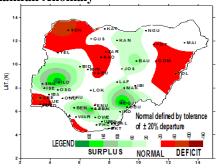


FIG. 1: 1st DEKAD OF AUGUST 2011 RAINFALL ANOMALIES (%)
OVER THE COUNTRY. ANOMALIES ARE COMPUTED WITH
RESPECT TO THE 1971 - 2000 BASE PERIOD DECADAL MEANS.

The rainfall anomaly during the dekad shown in *Fig. 1* above indicates that parts of Sokoto, Kaduna, Zaria, Abuja, Potiskum, Gombe, Yola and some parts of the southwest had deficit rainfall anomalies (red areas) However, most areas across the country had surpluses (green areas) while elsewhere recorded normal.

## 1.2 Rainfall Amounts

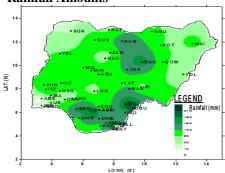


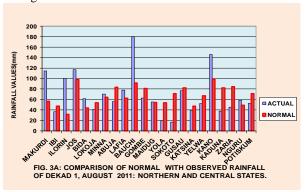
FIG. 2: ACTUAL RAINFALL AMOUNT FOR DEKAD 1. AUGUST 2011

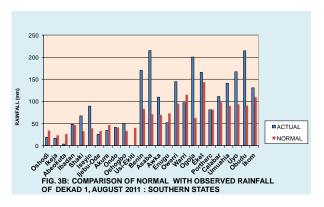
Fig 2 shows the rainfall received across the country and reveals that most stations received substantial rainfall ranging from 30mm to over 215mm in Asaba which

supported optimal agricultural activity. However, some parts of the southwest namely Abeokuta, Ijebu Ode and Ikeja had reduced rainfall of less than 30mm due to the effect of the little dry season. **Sokoto and Yola** in the extreme north also recorded below 30mm.

# 1.3 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE DEKAD

The comparison of the actual rainfall amount with normal rainfall values in some selected stations across the south and the north of the country are shown in Figs 3A & B. Both figures show that most stations in both the north and south indicate above normal rainfall during the dekad.





#### 1.4 Number of Rain Days

Fig 4 shows the number of rain days across the country and shows that most parts of the country had between 3 and 6 days of rainfall while most parts of the south east and Niger Delta had over 6 days. The rainfall distribution was generally adequate and favoured rainfed crops, pastures and rangeland.

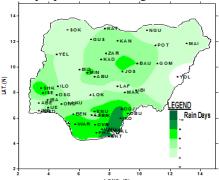


FIG. 4: A CTUAL NUMBER OF RAIN DAYS FOR DEKAD 1. A UGUST 2011

#### 2.0 SOIL MOISTURE CONDITION

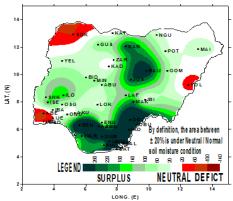
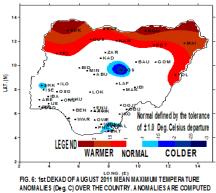


FIG. 5: 1st DEKAD OF AUGUST 2011 SOIL MOISTURE INDICES (%) OVER THE COUNTRY.

Fig 5 shows the decadal distribution of soil moisture across the country and indicates that most parts of the country (green areas) had surplus soil moisture conditions that were adequate for rainfed crops, rangeland and pastures. Stations such as Sokoto, Yola, Ijebu-Ode, Abeokuta and Ikeja in red recorded deficits.

## 3.0 MAXIMUM TEMPERATURE TREND 3.1 Maximum Temperature Anomaly

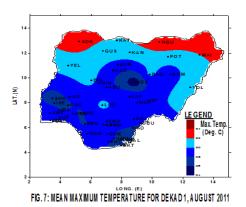
The trend of maximum temperature anomaly over the country is shown in Fig 6 and reveals that along the extreme north (Yola, Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, and Maiduguri), warmer than normal temperatures persisted while areas in and around Jos, Shaki, Eket and Calabar were cooler-than normal. Elsewhere remain normal with no significant change when compared with the normal temperature.



ANOMALIES (Deg. C) OVER THE COUNTRY. A NOMALIES A RE COMPUTED WITH RESPECT TO THE 1971 - 2000 BASE PERIOD DECADAL MEANS.

### 3.2 Maximum Temperature Values

Fig 7 below depicts the actual mean maximum temperature distribution and indicates that most stations across the country had temperatures below 32 Deg C while the extreme north (Sokoto, Nguru and Maiduguri) recorded temperatures above 32 Deg C. The temperature conditions generally continued to favour crop development and growth and as well as livestock performance.



## 4.0 WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 2 (11 TO 20), OF AUGUST, 2011 4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD) is expected to oscillate between Latitude 19.0 deg. and 21.0 deg. north. The moist south westerly winds are expected to continue to dominate most parts of the country. Active convective activities across the country are expected with the exception of the south western areas due to inhibition of convective activities.

With these synoptic systems, the extreme Northern parts of the country are expected to experience partly cloudy to cloudy weather conditions with occasional thunderstorms while the central states are expected to witness cloudy weather conditions with widespread thunderstorm activities. Meanwhile, the Inland and coastal parts of the country will experience cloudy weather conditions with widespread rains thunderstorm activities.

Maximum temperatures for the north and central states are expected to range from  $30^{0}C$  to  $35^{0}C$  while the minimum temperatures will be between  $21^{0}C$  and  $25^{0}C$ . Maximum temperatures for inland and coastal areas are expected to range from  $28^{0}C$  to  $31^{0}C$  while the minimum temperatures will be between  $22^{0}C$  and  $24^{0}C$  with the exception of Jos and environs that will have lower values.

Significant rains are expected to spread across the country with the exception of the south western states where rainfall amount will be reduced due to prevalence of the little dry season. Rainfall amounts are predicted to range from 10mm to 300mm.

## 4.2 Agricultural Activity/Outlook

Harvesting of **staple food crops and fruity vegetables** continued to dominate farming activities in most parts of the south and the middle belt while weeding and other farming operations were confined to the northern states.

It is expected that in parts of the south and the middle belt, harvest of **maize**, **cassava**, **vegetables** and **new yam** will continue. Farmers in the north are advised to continue to weed their farmlands before the rains intensifies. **Farmers in the south western states** are requested to use this period of little dry season (August break) to harvest matured crops, weed cassava farmlands and plan for second cropping season.

#### TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINF ALL (mm)	RAIN DAY (no.)	PET (mm)	TMAX (oC)	TMIN (oC)	DD (no.)	RAD(M J/m2/d ay)
ABEOK	3.4	3	39	29.81	22.1	179.6	16.7
ABUJA	56.1	5	35.4	28.5	21.9	172.2	15.3
AKURE	34.6	4	33.3	27.7	21.8	167.3	14.5
ASABA	215.6	5	35.4	29.0	22.5	177.2	15.1
AWKA	109.8	4	32.8	28.6	23.1	178.4	14
BAUCHI	179.6	6	40.6	30.4	22.0	182.1	17.2
BENIN	170.3	6	31.8	27.8	22.5	171.6	13.8
BIDA	61.9	2	39.2	30.6	22.8	186.8	16.5
CALABAR	111.1	10	29.1	27.2	22.7	169.6	12.7
EKET	165.8	10	21.7	26.3	23.9	171	9.4
ENUGU	52.1	7	34.7	28.9	22.7	178	14.8
GOMBE	62.7	4	35.3	28.5	21.7	170.8	15.3
GUSAU	76.8	4	40.6	31.1	22.7	188.7	17.1
IBADAN	48.5	5	34.4	28.0	21.7	168.8	15
IJEBU	25.3	5	33.8	28.5	22.5	174.7	14.6
IKEJA	17	2	33.2	28.9	23.3	181.1	14.1
IKOM	130.7	9	31.5	27.9	22.8	173.5	13.6
ILORIN	100.9	4	35	28.4	21.9	171.5	15.2
ISEYIN	89.6	7	34.1	27.4	21.1	162.4	15
JOS	117	6	33.2	24.3	17.3	128	15.6
KADUNA	38.1	6	38.6	28.9	20.9	169	16.8
KANO	146.1	6	41.9	31.0	22.0	184.9	17.8
KATSINA	39.4	4	44.3	31.8	21.6	186.9	18.7

LAFIA	78.2	3	35.9	30.1	23.6	188.3	15.1
LOKOJA	41.6	3	36.9	30.4	23.8	190.9	15.4
MAIDU	55.1	3	39.6	32.0	23.5	197.4	16.3
MAKURDI	114.3	4	35.6	29.0	22.4	177.2	15.3
MINNA	70.5	7	40.5	29.4	20.7	170.6	17.5
NGURU	58.8	2	44.6	33.3	23.7	205.2	18.2
OGOJA	200.3	9	34.8	28.6	22.3	174.5	15
ONDO	41.2	5	34.8	28.5	22.2	173.3	15
OSHODI	18.9	4	31.8	28.9	23.8	183.7	13.5
OSOGBO	50.5	5	33.6	27.7	21.7	167	14.7
OWERRI	145	8	33.3	28.2	22.4	173	14.4
PHC	81.5	7	31.4	28.3	23.2	177.4	13.4
POT	52.7	4	41.1	31.2	22.6	189	17.3
SHAKI	67.1	7	33.5	27.0	20.6	157.9	14.9
ѕокото	16.8	2	44.6	33.1	23.5	202.7	18.3
UMUAHIA	141	8	32.5	28.3	22.8	175.3	14
UYO	167.3	8	27.1	26.9	23.0	169.6	11.8
WARRI	97.1	7	33.7	29.0	23.3	181.6	14.3
YELWA	52.3	4	37.9	31.0	23.9	194.2	15.8
YOLA	20.1	1	38.9	31.8	24.4	200.9	16
ZARIA	45.2	5	40.2	29.5	20.8	171.7	17.4
OBUDU	214.4	6	33.8	28.0	22.1	170.6	14.7
IBI	36.7	4	38.7	29.9	22.2	180.7	16.5
USI-EKITI	-	-	-		-	-	-

#### 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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