

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

### Agrometeorological Bulletin No.15, Dekad 3, May (21 – 31) 2011

### **SUMMARY**

During the period under review, surplus rainfall anomalies were recorded across the country except the western and eastern flank of the north central which had deficit. The country recorded light to moderate rains with heavy thunderstorms in areas like Lagos, Uyo and Ogoja recording well over 50mm of rainfall in a single day with flooding and erosion. Decadal rainfall totals of over 100mm were recorded in parts of the south and in Kano, Lafia and Makurdi. Most parts of the south and some parts of the north central had surplus soil moisture conditions while the northeast had deficit. Warmer than normal temperatures continued to be experienced along the extreme north (Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, Maiduguri and Yola) while Jos and Eket remained colder. Temperatures below 32 Deg C were recorded in some parts of the south and north central while elsewhere were above 32 Deg C. However no part of the country recorded temperatures above 40 Deg C as the soaring temperatures were lowered with the rains. The rainfall in parts of the extreme north were signals for onset of growing season, hence farmers in these areas are advised to prepare for planting.

### 1.0 RAINFALL TREND

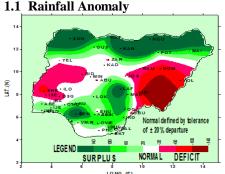


FIG. 1: 3rd DEKAD OF MAY 2011 RAINFALL ANOMALIES (%)
OVER THE COUNTRY. ANOMALIES ARE COMPUTED WITH
RESPECT TO THE 1971 - 2000 BASE PERIOD DECADAL MEANS

Fig 1 above shows the rainfall anomaly during the dekad and indicates that most parts of the south and the extreme north had surpluses (green areas) while the eastern and the western flank of the central portion of the country had deficit rainfall anomalies. The white were normal.

### 1.2 Rainfall Amounts

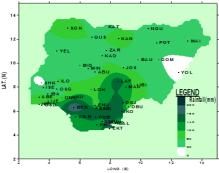
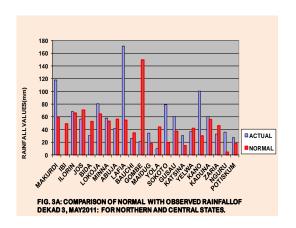


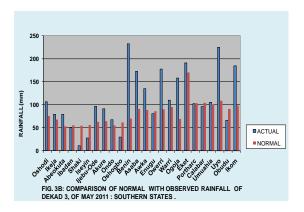
FIG. 2: ACTUAL RAINFALL AMOUNT FOR DEKAD 3, MAY 2011

The rainfall received across the country is shown in *fig 2* and reveals that most parts of the south and parts of Makurdi, Lafia and Kano received over 100mm of rains. Heavy thunderstorms in Lagos and some parts of the southeast resulted to flooding and erosion with submerging of farmlands and disruption of vehicular traffic. Most parts of the north received over 30mm of rainfall. Farmers in the extreme north are advised to commence land preparations and get ready for planting as the growing season is about to commence.

## 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 north is shown in *Figs 3A & B* below. Fig 3A shows that most stations in the north had below normal rainfall while fig 3B indicates above normal rainfall for most stations in the south.





### 1.4 Number of Rain Days

The number of rain days across the country is shown in *Fig 4* and reveals that most stations had more than 3 rain days with distribution favourable for optimal crop development. In the Niger delta area, most stations had above 7 rain days while Eket had 10 rain days. The dekad witnessed good rainfall distribution.

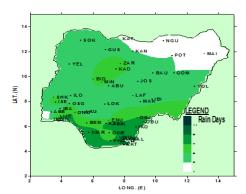


FIG. 4: ACTUAL NUMBER OF RAIN DAYS FOR DEKAD 3, MAY 2011

### 2.0 SOIL MOISTURE CONDITION

The decadal distribution of soil moisture across the country is shown in *Fig* 5 and indicates that most parts of the south and some parts of the northern and central states had surplus soil moisture condition while the extreme northeast and some parts of the southwest had deficit. There was increased soil moisture for optimum crop development.

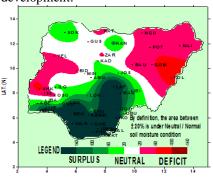


FIG. 5: 3rd DEKAD OF MAY 2011 SOIL MOISTURE INDICES (%) OVER THE COUNTRY.

# 3.0 MAXIMUM TEMPERATURE TREND 3.1 Maximum Temperature Anomaly

Fig 6 shows the trend of maximum temperature anomaly over the country and indicates that warmer than normal temperatures were experienced along the extreme north (Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, Maiduguri and Yola) while areas in and around Jos and Eket were colder than normal. The white areas were normal with no significant change when compared with the normal temperatures.

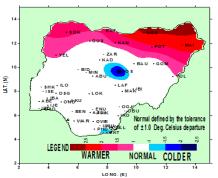


FIG. 6: 3rd DEKA D OF MAY 2011 MEAN MAX MUM TEMPERATURE A NOMA LIES (Deg. C) OVER THE COUNTRY. ANOMA LIES ARE COMPUTED WITH RESPECT TO THE 1971 - 2000 BASE PERIOD DECADAL MEANS.

### 3.2 Maximum Temperature Values

The actual mean maximum temperature distribution is shown in *Fig* 7 below and reveals that parts of the southeast, southwest, and parts of the north central recorded temperatures below 32 *Deg C* while elsewhere had above 32 *Deg C*. With the advent of rains across the north, no station reported above 40 Deg C.

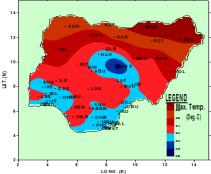


FIG. 7: MEAN MAXIMUM TEMPERATURE FOR DEKAD 3, MAY 2011

### 4.0 WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF JUNE 2011

### 4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD) is expected to move further northward with its position, oscillating between Latitude 16.5 deg. north and 18.0 deg. north. More inflow of moist southwesterly and active convective activities are expected

With the synoptic systems, the Northern parts of the country and the Central states are expected to experience cloudy weather conditions and localised thunderstorms. The Inland and coastal states will experience cloudy weather conditions and widespread thunderstorm activities.

Maximum temperature for extreme North is expected to range between 36deg C and 38deg C. Minimum temperatures will range from 24deg C to 27deg C. For the central states maximum temperatures will range between 32 deg C and 36 deg C while minimum temperatures will be between 24 deg C and 26 deg C. Maximum temperatures for Inland and coastal states are expected to range from 29 deg C to 33 deg C while

minimum temperatures will range between 23 deg C and 25 deg C during the period.

### **4.2 Agricultural Summary**

Planting of staple food crops continued in parts of the north central while in the extreme north, clearing of farmlands in preparation of planting is in progress.

In parts of the south and north central, harvest of maize is in progress while vegetables planted on irrigated farms in the north is in progress

Farmers in the extreme north are advised to prepare their farms in readiness for planting of new crops as the cropping season is expected to commence.

### TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATIONS	TOTAL RAINFAL (mm)	TOTAL RAIN DAYS	EVAPOTRANSPIR ATION (mm)	MEAN MAXIMUM TEMP ( <sup>O</sup> C)	MEAN MINIMUM TEMP ( <sup>O</sup> C)	DEGREE DAYS (MAIZE)	MEAN RADIATION (MJ/m²/day)
ABEOKUTA	79	3	48	33	23.5	222. 8	17.9
						219.	
ABUJA	41.5	4	44.9	32.2	23.8	9 207.	16.8
AKURE	90.5	3	44.9	31.2	22.5	2	17.2
ASABA	172.2	7	48.8	33.3	23.6	225. 1	18.1
AWKA	135.1	9	44.3	31.9	23.8	218	16.6
BAUCHI	26.3	4	50.4	34.4	24.1	233. 7	18.4
BENIN	232.8	6	45.5	32.0	23.3	216. 3	17.1
BIDA	30.1	5	46.5	33.2	24.3	228. 3	17.2
CALABAR	95.4	9	42.7	30.9	23.2	209. 3	16.3
						206.	
EKET	190.9	10	33.1	29.2	24.4	9 208.	12.7
ENUGU	80.6	5	45.4	31.4	22.6	8	17.3
GOMBE	21.1	3	48.5	33.9	24.1	230. 6	17.8
						240.	
GUSAU	60.4	4	52.2	35.3	24.4	5 215.	18.9
IBADAN	49.6	4	45.7	32.0	23.2	6	17.2
IJEBU ODE	96.5	7	41.3	31.0	23.7	213. 1	15.6
IKEJA	79.2	3	39.1	31.1	24.7	219. 2	14.6
IKOM	184.2	8	45.8	31.7	22.9	212. 5	17.3
ILORIN	68.3	3	50.1	33.6	23.4	225. 5	18.6
ILUKIN	00.3	3	50.1	33.0	23.4	5	10.0
ISEYIN	27.2	6	45.2	30.9	21.9	202	17.3
JOS	56.5	3	41.5	26.8	17.9	157. 6	17.2
KADUNA	60.4	6	47.9	31.4	21.0	200.	18.5

OK THE DI							
						4	
		_				247.	
KANO	100.4	3	56.7	36.8	24.2	3	20.3
		_				245.	
KATSINA	30.3	3	56.1	36.7	24.0	9	20.2
=			40.0			225.	
LAFIA	171.4	4	46.2	32.9	24.2	6	17.1
1.01/0.14	00.7		40.4	040	04.5	233.	40
LOKOJA	80.7	4	49.1	34.0	24.5	5	18
MAIDLICUDI	24.2	_	FO 4	20.4	25.0	265.	20.4
MAIDUGURI	34.3	2	58.4	38.4	25.8	215.	20.4
MAKURDI	118.1	4	47.6	22.2	22.0		18
WAKUKUI	110.1	4	47.0	32.3	22.8	212.	10
MINNA	58.1	6	47.4	32.2	22.5	8	17.9
IVIIIIVA	30.1	0	47.4	32.2	22.5	259.	17.5
NGURU	36	1	62	39.0	24.3	7	21.8
NOONO	- 50		02	33.0	24.0	220.	21.0
OGOJA	157.8	7	48.3	32.8	23.2	1	18.1
OOOJA	107.0		70.0	32.0	20.2	215.	10.1
ONDO	66.8	7	43.5	31.5	23.6	213.	16.4
0.120	00.0		10.0	0110	20.0	222.	
OSHODI	106.4	6	37.9	31.2	25.2	6	14.1
0002.			01.0	011.2		209.	
OSOGBO	29.5	5	44.7	31.3	22.8	8	17
						208.	
OWERRI	177.1	6	44.6	31.2	22.7	3	17
PHC	101.8	7	43	31.7	24.0	218	16.1
						256.	
POTISKUM	27	3	57.1	37.5	25.1	4	20.1
						206.	
SHAKI	10.8	5	45.9	31.3	22.2	4	17.5
SOKOTO	78.9	4	52.8	36.9	26.2	259	18.6
						209.	
UMUAHIA	104.7	7	42.5	30.9	23.2	7	16.2
						211.	
UYO	224.7	9	41.9	30.9	23.5	6	15.9
						225.	
WARRI	109.6	8	46.2	32.8	24.3	9	17.2
						252.	
YELWA	36.9	3	49.4	35.6	26.3	8	17.5
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\						248.	
YOLA	9.8	4	48.4	35.1	26.1	5	17.3
ZARIA	32.9	6	50	32.3	21.2	206	19.1
OBLIBIT	05.6		44.0	00.0	00.4	205.	
OBUDU	65.3	8	44.3	30.9	22.4	3	17

#### 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:

The Director-General/CEO, Nigerian Meteorological Agency (NIMET), 33 Pope John Paul II Street, Maitama District,