

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

# Agrometeorological Bulletin No.11, Dekad 2, April (11 – 20) 2011

#### **SUMMARY**

Deficit rainfall anomalies were recorded in most parts of the south with few areas having surpluses (Eket and Ikom) during the period under review. Light to moderate rains with thunderstorms fell across the south and some parts of the north central. The highest rainfall amount of 74.7mm was recorded in Ikom followed by Owerri with 56.2mm. Colder than normal temperatures were experienced in and around Ondo, Akure, Eket and Calabar while warmer than normal were experienced along the extreme north (Yelwa, Sokoto, Gusau, Katsina, Kano, Nguru, Maiduguri and Yola). Deficit soil moisture conditions were observed in most parts of the country except in areas in and around Calabar, Eket and Ikom which had surpluses. Temperatures below 32 deg C were recorded only in and around Eket and Calabar while the rest of the country had above 32 Deg C. However temperatures of above 40 Deg C were reported at Yelwa, Katsina, Kano, Nguru, Maiduguri and Yola. With appreciable rainfall in most parts of the south, some farmers have continued to clear their farmlands for seed bed preparations while others began planting. Harvest of early maize and leafy vegetables planted earlier on irrigated farms across the country is in progress. Farmers in the central and northern parts of the country are advised to consider the 2011 NIMET's Seasonal Rainfall Prediction (SRP) for planting dates. However, the farmers in the northern parts are still required to continue to irrigate their farm land pending the time of rainfed cropping season.

#### 1.0 RAINFALL TREND

#### 1.1 Rainfall Anomaly



FIG. 1: 2nd DEKAD OF APRIL 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 (red areas) had deficit rainfall anomalies while few areas (Ikom and Eket) recorded surpluses. Greater parts of the country (in white) remained normal.

## 1.2 Rainfall Amounts

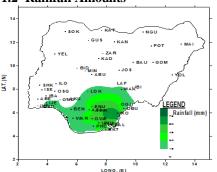
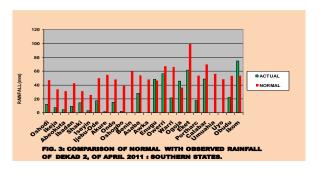


FIG. 2: ACTUAL RAINFALL AMOUNT FOR DEKAD 2, APRIL 2011

Fig 2 shows that most parts of the southeast, Lagos and parts of the north central in green received light to moderate rains while most parts of the southwest and the northern parts of the country (in white) had below 10mm of rainfall. Farmers especially those in the north are advised to continue to irrigate their crops as rains are still inadequate.

# 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 is shown in *Fig 3* below and reveals that most stations just like the preceding dekad received rainfall amounts below the normal. This is not favourable for field crops that require good rains.



#### 1.4 Number of Rain Days

Fig 4 shows the number of rain days across the country and indicates that most stations in the south

had 1- 4 raindays while the greater parts of the country in white had zero to 1 rainday.

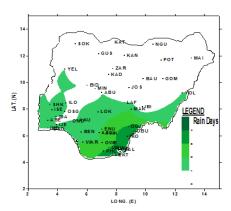


FIG. 4: A CTUAL NUMBER OF RAIN DAYS FOR DEKAD 2, APRIL 2011

#### 2.0 SOIL MOISTURE CONDITION

The decadal distribution of soil moisture across the country is shown in *Fig* 5 and reveals that most parts of the country had deficit soil moisture condition. Surpluses however were recorded only in parts of Eket, Calabar and Ikom. The dekad witnessed below normal rainfall which impacted negatively to field crops in the southwest. Farmers in the southern parts of the Niger delta and the coastal areas are advised to commence planting while the other parts of the south should commence bush clearing and seed bed preparation.

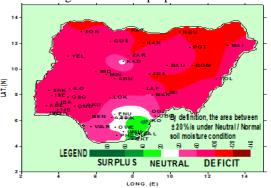


FIG. 5: 2nd DEKAD OF APRIL 2010 SOIL MOISTURE INDICES {%} OVER THE COUNTRY.

#### 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 colder than normal temperatures were recorded in and around Ondo, Akure, Eket and Calabar while warmer than normal temperatures were experienced along the extreme north (Yelwa, Sokoto, Gusau, Katsina, Kano, Nguru, Maiduguri and Yola). The white areas were normal with no significant change when compared with the normal temperatures.

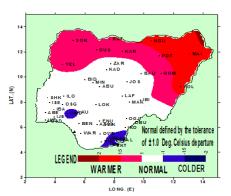


FIG. 6: 2nd DEKAD OF A PRIL 2010 MEAN MAXIMUM TEMPERATURE ANOMALIE'S (Deg. C) OVER THE COUNTRY. A NOMALIE'S A RE COMPUTED WITH RESPECT TO THE 1971 - 2000 BASE PERIOD DECADAL MEANS.

#### 3.2 Maximum Temperature Values

Fig 7 below shows the actual mean maximum temperature distribution and reveals that only parts of Eket and Calabar recorded less than 32 Deg C while other parts of the country had above 32 Deg C. However, temperatures of above 40 Deg C were recorded at Yelwa, Katsina, Kano, Nguru, Maiduguri and Yola. Irrigated field crops in these areas would demand more water due to increased rate of evapotranspiration. Farmers are advised to make water available to both crops and livestock to achieve good results.

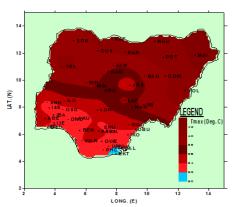


FIG. 7: MEA N MAXIMUM TEMPERATURE(Deg. C) FOR DEKA D 2, A PRIL 2011

### 4.0 WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 30), OF APRIL 2011

#### 4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD)'s position is expected to move northward, oscillating between Latitude 12.0 deg. north and 13.5 deg. north during the dekad. More inflow of moist south-westerly winds inland and active convective activities along the coast of the country are expected.

The northern part of the country is expected to have partly cloudy weather condition while the central states are will experience cloudy conditions with rains/thunderstorms. The inland

areas of the south are expected to witness cloudy weather and rains, while coastal areas are will experience cloudy weather condition with occasional localized rains and thunderstorms.

Maximum temperatures for North and Central States are expected to range between 39 and 42Deg C while minimum temperatures will range between 25 and 30 Deg C. Jos minimum temperatures are expected to range between 16 and 19 Deg C.

Maximum temperatures for Inland and Coastal areas of the south are expected to range between 33 and 35 Deg C, while minimum temperatures are expected to be between 24 and 27 Deg C during the period.

#### **4.2 Agricultural Summary**

As a result of the light to moderate rains recorded in most parts of the south during the dekad, planting of the staple food crops has commenced in some parts of the south. Harvest of early maize and leafy vegetables planted earlier on irrigated farms across the country is in progress

In the north, farmers are advised to continue to irrigate their farm crops while the central areas are requested to engage in clearing of farm lands and commence planting as advised in the 2011 NIMET's Seasonal Rainfall Prediction (SRP).

#### 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	4.3	1	52.3	35.1	23.9	215	21
ABUJA	4.2	1	54.6	36.4	24.5	224. 4	21.5
AKURE	1.5	1	45.7	32.3	23.2	197. 6	18.9
ASABA	28.1	2	52.7	35.7	24.8	222. 4	20.9
AWKA	20.3	2	47.9	34.4	24.8	216 .1	19.1
BAUCHI BENIN	4.5	1	60.3	38.9	24.8	238. 5	23.3
BIDA	4.6	1	56.3	38.4	26.6	245. 2 202.	21.5
CALABAR	48.5	3	42.4	32.1	24.4	1	17.4
EKET	61.5	4	35.8	30.5	24.9	197. 1	14.8
ENUGU	48.3	2	48.3	33.4	23.6	205. 1	19.7
GOMBE	0	0	60.9	39.5	25.6	245. 4	23.2
GUSAU	-	-	-	-	-	-	-
IBADAN	9.2	1	48.1	33.3	23.5	203. 9	19.7
IJEBU	17.2	1	48.2	33.8	24.2	210. 3	19.5
IKEJA	7.4	2	45.9	33.9	25.3	216. 2	18.4
IKOM	74.7	4	49.8	33.0	22.2	195. 9	20.7
ILORIN	3.2	1	53.1	35.4	24.0	216. 9	21.2
ISEYIN	2.9	2	48.3	33.0	23.0	200	19.9
JOS	0	0	57.1	34.0	19.1	185. 4	24.1

KADLINIA							
KADUNA	-	-	-	-	-	-	-
144410						239.	
KANO	0	0	65.9	40.4	23.6	8	25.4
144 701114				40.0		230.	
KATSINA	0	0	69.5	40.8	21.3	5	27.2
						250.	
LAFIA	2.8	1	56.8	39.0	27.2	7	21.5
LOKOJA	-	-	-	-	-	-	-
						258.	
MAIDUGURI	0	0	68.2	42.3	25.4	6	25.5
						227.	
MAKURDI	23.4	2	51.8	36.0	25.4	1	20.3
						236.	
MINNA	0	0	59.2	38.4	24.9	4	22.9
						250.	
NGURU	0	0	65.8	41.2	24.9	3	24.9
						215.	
OGOJA	45.6	3	55.1	35.7	23.4	4	22.1
						203.	
ONDO	15	1	44.4	32.6	24.1	4	18.2
						217.	
OSHODI	12.2	2	42.1	33.4	26.2	6	16.8
						202.	
OSOGBO	1.8	1	49.1	33.4	23.0	1	20.2
						203.	
OWERRI	56.2	2	48.2	33.3	23.5	7	19.7
-						206.	
PHC	17.8	3	48.6	33.6	23.7	5	19.8
POTISKUM	-	-	-	-	-	-	-
						199.	
SHAKI	14.6	1	51.6	33.7	22.2	6	21.2
						240.	
SOKOTO	0	0	60.8	39.3	24.9	7	23.4
UMUAHIA	-	-	-	-	-	-	-
UYO	_	-	-	-	_	-	_
WARRI	21.5	2	46.8	34.0	25.1	215	18.8
VV/AIXIXI	21.0		40.0	34.0	20.1	259.	10.0
YELWA	11.2	1	60.2	40.5	27.4	259.	22.5
ILLVVA	11.2	- '	00.2	40.5	21.4	272.	22.5
YOLA	0.3	1	62.1	41.8	28.6	1	22.7
IOLA	0.3		02.1	41.0	20.0		24.3
ZARIA	0	0	61.9	38.4	23.2	228	24.3
∠∩NIA	U	U	01.9	30.4	23.2		-
OBLIDIT	22.4	4	E0.2	22.0	22.2	206.	20.4
OBUDU	22.1	4	50.2	33.9	23.3	3	20.4
IDI		0	60.0	20.0	25.4	243.	22.2
IBI	0	0	60.9	39.2	25.4	3	23.3

#### 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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