



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

**Agrometeorological Bulletin No.19, Dekad 1, July (1 – 10) 2011**

**SUMMARY**

During the period under review, moderate to heavy rains fell across the country. Stations such as Ikeja, Oshodi, Ijebu Ode, Asaba and Eket recorded totals of over 200mm each while the Lagos area witnessed high intensity falls with a record of 233mm in a single day which resulted to devastating flood and erosion that damaged buildings and claimed many lives. Most parts of the country had surplus soil moisture conditions with the exception of few areas in the north (Sokoto, Nguru, Potiskum and Maiduguri) that had deficits. Warmer than normal temperatures have persisted along the extreme north (Yelwa, Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum and Maiduguri) while Jos and Eket remained colder. Stations such as Yelwa, Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, Maiduguri and Yola in the north recorded temperatures above 32 Deg C while the greater part of the country comprising the south and north central had below 32 Deg C. With increasing rains across the country temperatures have continued to remain low with 35 Deg C as the highest maximum. Harvest of maize, cassava, fruity vegetables and new yams remain the dominant field activity during the dekad.

**1.0 RAINFALL TREND**

**1.1 Rainfall Anomaly**

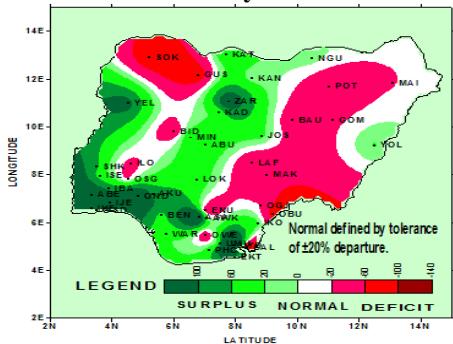


FIG.1: 1ST DEKAD OF JULY, 2011 RAINFALL ANOMALIES(%) OVER THE COUNTRY. ANOMALIES ARE COMPUTED WITH RESPECT TO 1971-2000 BASE PERIOD DEKADAL MEANS.

Fig 1 above shows the rainfall anomalies over the country and indicates that surplus rainfall anomalies (green areas) were recorded in most parts of the south and some parts of the north. Deficits were observed in few areas (red) in the north and the central while others remained normal.

**1.2 Rainfall Amounts**

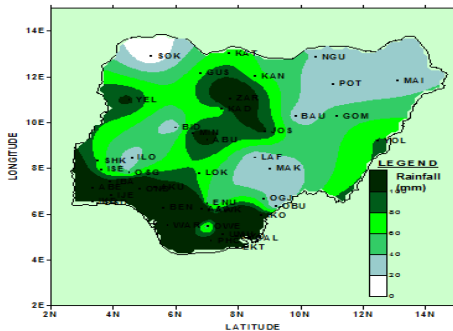


FIG.2: ACTUAL AMOUNT OF RAINFALL FOR DEKAD 1, JULY 2011

The rainfall received across the country is shown in Fig 2 and reveals that all parts of the country received over

30mm of rains except Sokoto which had no rains. However areas such as Ikeja, Oshodi, Ijebu Ode, Asaba and Eket recorded decadal totals of over 200mm while the Lagos area recorded over 200mm in a single day with devastating flooding and erosion which damaged buildings and claimed many lives (see plate1 below)



Plate 1: Submerged buildings in a Lagos suburb after Sunday's rainfall that claimed many lives.

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

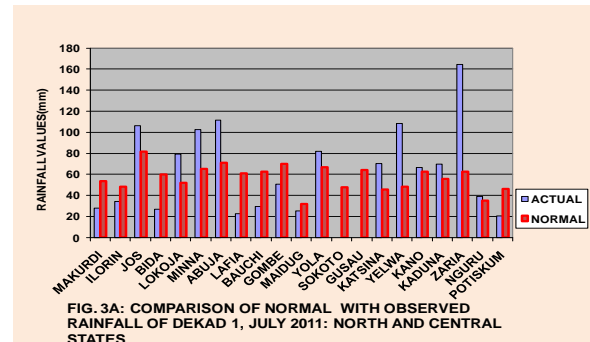
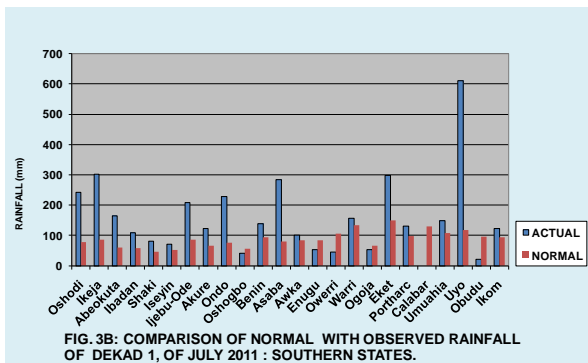
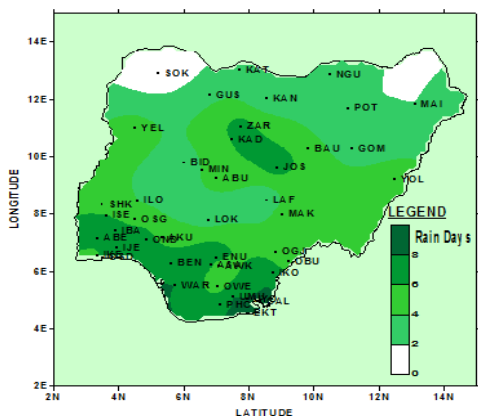


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 1, JULY 2011: NORTH AND CENTRAL STATES

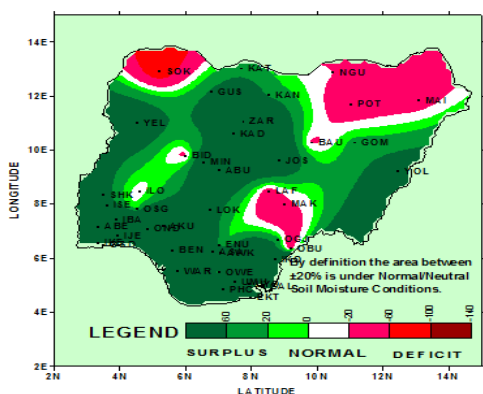


#### 1.4 Number of Rain Days

The number of rain days across the country is shown in **Fig 4** and reveals that most stations in the north had 3 or more days of rainfall except Maiduguri and Sokoto which had two and zero rain days respectively. Most stations in the south had 5 rain days and above. The rainfall distribution was favourable for optimal crop development and growth and mostly supported crops that required high spread of rains.



#### 2.0 SOIL MOISTURE CONDITION



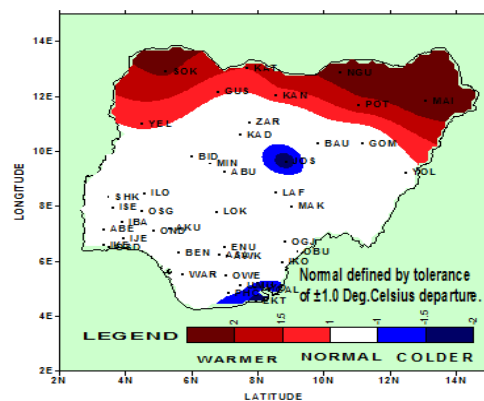
**Fig 5** shows the decadal distribution of soil moisture across the country and indicates that most parts of the

country (green areas) had surplus soil moisture conditions while few areas such as Sokoto, Nguru, Potiskum, Maiduguri, Lafia and Makurdi had deficits. Generally, the soil moisture across the country supported crop growth and development.

#### 3.0 MAXIMUM TEMPERATURE TREND

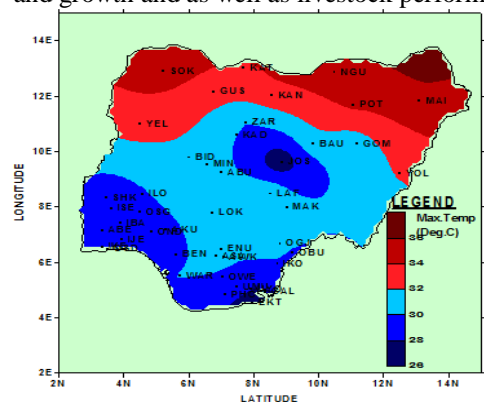
##### 3.1 Maximum Temperature Anomaly

**Fig 6** below shows the trend of maximum temperature anomaly and indicates that most parts of the country were normal. However warmer than normal temperatures have persisted along the extreme north including Yelwa, Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum and Maiduguri) while areas in and around Jos and Eket were colder.



##### 3.2 Maximum Temperature Values

**Fig 7** below shows the actual mean maximum temperature distribution across the country and reveals that the northern stations (red areas) including Yelwa, Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, Maiduguri and Yola recorded temperatures above 32 Deg C while the rest had below 32 Deg C. The dekad had temperatures that favoured good crop development and growth and as well as livestock performance.



#### 4.0 WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 2 (11 TO 20), OF JULY 2011

##### 4.1 Weather Outlook

The moist south westerly winds are expected to dominate the country as the ITD is expected to move further north with mean position fluctuating between Latitude *19.0 deg. and 20.5 deg. north*. With these features, more active convective activities are expected.

Therefore, the northern parts of the country are expected to experience cloudy weather conditions with active thunderstorms while the central states are expected to be cloudy with rains in the mornings and thundery activities later in the day

The coastal areas are expected to be cloudy with widespread rainfall activities.

Maximum temperatures for the north and central states are expected to range between *29°C and 32°C* while minimum will be from *22°C to 25°C*.

Maximum temperature for the inland areas will be between *26°C to 31°C* while the minimum temperatures will range between *21°C and 23°C* during the period. Rains are expected to spread across the country with values ranging from 20mm to 250mm.

##### 4.2 Agricultural Activity/Outlook

Late planting of staple food crops continued in some parts of the extreme north. Also harvesting of maize and fruity vegetables was in progress in parts of the north central and south.

It is expected that in parts of the south and north central, harvest of maize, cassava, vegetables and new yam will continue. Farmers in the north are advised to weed their farms as more rains will soon set in so as to achieve good yield.

**TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD**

STATIONS	TOTAL RAINFAL (mm)	TOTAL RAIN DAYS	EVAPOTRANSPIRATION (mm)	MEAN MAXIMUM TEMP (°C)	MEAN MINIMUM TEMP (°C)	DEGREE DAYS (MAIZE)	MEAN RADIATION (MJ/m <sup>2</sup> /day)
ABEOKUTA	164.6	8	36.4	30	22.8	183.9	15.4
ABUJA	111.3	5	38.6	30.6	22.3	184.6	16.3
AKURE	123.1	5	36.2	29.3	21.8	175.7	15.6
ASABA	284.5	7	38.2	31.4	23.7	195.3	15.9
AWKA	99.7	4	36.7	30.5	23.1	187.8	15.4
BAUCHI	29.7	5	40.8	31.4	22.2	187.7	17.1
BENIN	138.7	7	33.6	29.3	23.0	181.5	14.3
BIDA	26.7	3	39.1	31.5	23.3	193.9	16.3
CALABAR							
EKET	297.4	9	21.6	27.0	24.3	176.4	9.3
ENUGU	51.9	8	36.5	30.2	22.9	185.1	15.4
GOMBE	50.8	3	37.9	30.8	22.4	186	15.9
GUSAU							
IBADAN	108	7	33.4	29.1	22.6	178.6	14.2
IJEBU	208.7	7	32.6	29.0	22.8	178.8	13.9
IKEJA	301	5	29.7	29.3	24.0	186.5	12.5
IKOM	121.6	8	34.8	29.8	23.2	184.7	14.7
ILORIN	34	4	36.6	29.8	22.2	180	15.6
ISEYIN	71.1	6	35.7	29.0	21.7	173.1	15.4
JOS	106.1	7	37.2	26.3	17.2	137.5	17.2
KADUNA	69.5	6	41	30.1	20.4	172	17.7

							3	
KANO	66.3	2	44.4	33.4	22.7	200.6	18.1	
KATSINA	70.3	3	49.9	33.7	19.7	186.7	21	
LAFIA	22.6	2	39	31.8	23.7	197.7	16.1	
LOKOJA	79.3	3	38.5	31.7	23.9	197.8	15.9	
MAIDUGURI	25.1	2	43.8	35.7	25.7	227	17.1	
MAKURDI	28	5	38.7	30.6	22.2	184.3	16.4	
MINNA	102.4	4	43.3	31.4	20.8	181.1	18.5	
NGURU	39.1	3	47.7	35.3	23.7	214.7	19.1	
OGOJA	52.6	5	38	30.9	23.1	190	15.9	
ONDO	227.7	8	35.4	29.4	22.3	178.4	15.1	
OSHODI	241.4	8	29.7	29.3	24.3	187.6	12.5	
OSOGBO	41.4	5	36	29.4	22.0	176.8	15.4	
OWERRI	44	5	33.9	29.5	23.1	182.8	14.3	
PHC	130.7	7	30.1	28.7	23.6	181.5	12.8	
POTISKUM	20.3	2	44.3	34.4	24.5	214.5	17.8	
SHAKI	79.9	5	36.1	28.7	21.0	168.5	15.7	
SOKOTO	0	0	43.9	35.0	25.4	222.1	17.4	
UMUAHIA	148.7	8	32.6	29.2	23.1	181.7	13.8	
UYO	610.8	8	28.6	28.1	23.3	177	12.2	
WARRI	157.2	8	32.3	30.1	24.5	192.7	13.4	
YELWA	108.3	5	41	33.0	24.2	206	16.7	
YOLA	81.9	5	40.3	32.2	23.7	199.5	16.6	
ZARIA	164.5	7	40.9	30.1	20.3	171.9	17.7	
OBUDU	21.9	4	36.6	29.8	22.5	181.5	15.6	

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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