



# NIGERIAN METEOROLOGICAL AGENCY

NATIONAL WEATHER FORECASTING AND CLIMATE RESEARCH CENTRE, BILL CLINTON DRIVE, NNAMDI AZIKIWE INTERNATIONAL AIRPORT, P.M.B. 615, GARKI, ABUJA, NIGERIA

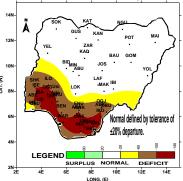
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#### <u>SUMMARY</u>

The dekad in review that is 3<sup>rd</sup> dekad of December indicated that only two stations recorded rainfall (Ikeja and Oshodi) in the Southern part of the country showing the end of rainy season in the country. Soil moisture conditions were deficit in most of the country, except extreme coastal parts which had neutral. The country recorded normal to colder than normal maximum temperature anomalies except in some stations in the Central and South which recorded warmer than normal temperature anomalies. Most parts of the country recorded below 33°C of mean maximum temperature values. Jos recorded the lowest temperatures of 27.3°C. Weeding of dry season crops is expected to continue in the extreme northern parts of the country, while processing and packaging of harvested crops for second season farming is expected to continue in the extreme South.

#### 1.0 RAINFALL PATTERN

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



**Fig.1: 3RD DEKAD DEC, RAINFALL ANOMALIES**Rainfall anomaly over the country is shown in *Fig.1* above it indicates that the southern part of the country had deficit rainfall anomalies, while the northern and central part had normal rainfall anomalies.

# **Rainfall Amounts**

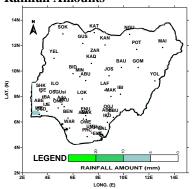


Fig.2 above highlights the actual rainfall amount observed for the dekad above and it shows that only two stations recorded rain of less than 10mm. Ikeja recorded 8.9mm and Oshodi recorded 0.5mm. This indicates the end of rainy season in the southern parts of the country.

# 1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 3RD DEKAD OF NOVEMBER

Actual rainfall amounts measured and normal/long term averages during the dekad over the southern parts of the country is indicated in *Fig.3* below. It shows that only Ikeja stations recorded normal amount of rainfall, while others recorded below normal rainfall amounts.

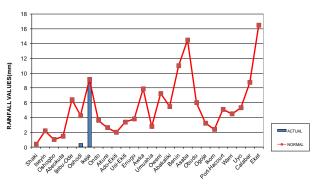


FIG. 3: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 DECEMBER 2014: FOR SOUTHERN STATES OF NIGERIA.

#### 1.3 Number of Rain Days.

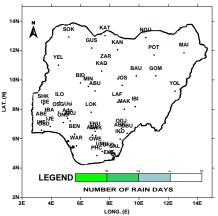


Fig.4: NUMBER OF RAIN DAYS

The distribution of rainfall over the country is shown in *Fig.4* above and it indicates that no station recorded

above 1 day of rain among the two stations that recorded rain in the southern part of the country.

#### 2.0 SOIL MOISTURE CONDITION

Fig.5 below shows soil moisture indices across the country and it indicates that most parts of the country had deficit soil moisture conditions, except the extreme coastal part which showed neutral soil moisture conditions.

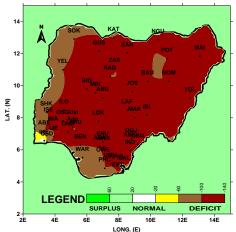


Fig.5: 3RD DEKAD OF DECEMBER SOIL MOISTURE INDEX (SMI)

# 3.0 MAXIMUM TEMPERATURE TREND

# 3.1 Maximum Temperature Anomaly

Fig.6 below shows maximum temperatures anomaly over the country and it summarizes that most parts of the country had normal to colder than normal maximum temperature anomalies, except parts of Yelwa, Lokoja, Obudu, and Ogoja axis which had warmer than normal maximum temperature anomalies.

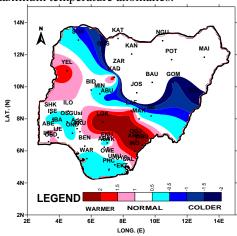


Fig.6: Maximum Temperature Anomaly.

#### 3.2 Maximum Temperature Values.

Fig.7 below indicates actual mean maximum temperature distribution across the country and shows that most parts of the country had mean maximum temperatures below  $33^{\circ}C$  except some parts of Yelwa, Bida, Abuja, Minna, Abeokuta, and Ogoja that recorded above  $33^{\circ}C$ . Jos recorded the lowest temperatures of  $27.3^{\circ}C$ .

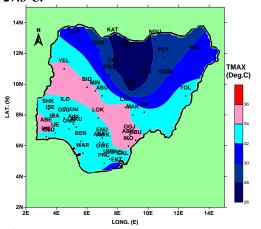


Fig. 7: Mean maximum Temperature

# WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF JANUARY, 2014 4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 5.5deg.N and 6degN. Hazy weather is expected over the northern part of the country while the central states are likely to be hazy and sunny. The coastal areas of the South are expected to experience cloudy/partly weather conditions.

The northern and the central states are expected to have mean maximum temperatures between  $26 \, ^{o}C$  and  $32 \, ^{o}C$ , while the mean minimum temperatures will range from 14  $^{o}C$  to  $18 \, ^{o}C$ . The mean maximum temperatures over the inland and coastal areas of the South are expected to lie between  $30 \, ^{o}C$  and  $32 \, ^{o}C$ , while the mean minimum temperatures will range from  $20 \, ^{o}C$  to  $22 \, ^{o}C$ .

## 4.2 Agricultural Activity/Outlook

Weeding of dry season crops is expected to continue in the extreme northern parts of the country, while in the extreme southern parts packaging and processing of harvested crops for the second season farming expected also to continue.

## TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL ()	RAINDAY ()	PET 60.5	TMAX 35.1	TMIN 21.3	GDD 222.3	22.6
ABEOKUTA	O	U	60.5	33.1	21.3	222.3	22.0
ABUJA	0	0	62.9	33.7	17.1	191.5	24.7
ABAKALIKI	0	0	60.5	35.1	21.5	223.6	22.5
AKURE	0	0	61.8	33.4	17.5	192	24.2
AWKA	0	0	61.3	33.8	19.8	201.2	23.7
BAUCHI	0	0	50.6	27.8	15.3	149.5	21.3
BENIN							
BIDA	0	0	60.7	34.7	20.4	215.2	22.9
CALABAR	0	0	52.5	32.4	21.7	209.2	20
EKET	0	0	43.8	30.0	22.3	199.6	16.9
ENUGU	0	0	59.8	32.9	18.3	193.4	23.4
GOMBE	0	0	54.4	30.1	16.7	169.5	22.1
GUSAU	0	0	56.1	30.2	15.3	162.4	23.1
IBADAN	0	0	55.7	33.9	22.2	220.5	20.8
IJEBU	0	0	54.9	33.4	21.9	216.6	20.7
IKEJA	8.9	1	XX	33.0	XX	XX	XX
ILORIN	0	0	61.6	33.4	17.5	192	24.2
ISEYIN	0	0	57.3	33.4	20.3	207	22
JOS	0	0	56.1	27.3	10.1	118.1	25.1
KADUNA	0	0	56	29.9	15.1	159.4	23.2
KANO							
KATSINA	0	0	52.5	27.5	12.7	132.9	22.8
LAFIA	0	0	66.5	35.3	17.6	203.2	25.6
LOKOJA	0	0	63	33.9	17.6	195.3	24.5

	0	0	64.5	33.4	15.4	180.4	25.8
MAKURDI					-		
MINNA	0	0	60.5	34.5	20.1	212.3	22.9
NGURU	0	0	XX	28.2	XX	XX	XX
OGOJA	0	0	60	34.7	21.1	219	22.5
OSHODI	0.5	1	54.3	34.1	23.2	227.5	20.1
OSOGBO	0	0	62.3	33.7	17.5	193.8	24.4
OWERRI	0	0	60.9	33.2	18.2	194.7	23.8
PHC	0	0	57.6	32.8	19.5	199.6	22.3
POT	0	0	55.3	28.7	13.1	141.8	23.7
SHAKI	0	0	60.5	33.6	18.8	200.5	23.4
SOKOTO	0	0	57.8	31.2	15.7	169.8	23.5
UYO	0	0	55.6	32.8	20.6	205.5	21.3
WARRI							
YELWA	0	0	65.1	34.6	17.0	195.8	25.3
YOLA	0	0	XX	33.3	XX	XX	XX
ZARIA	0	0	52.5	27.8	13.8	140.4	22.5
ADO-EKITI	0	0	60.7	33.0	17.6	190.4	23.9
USI-EKITI	0	0	67.2	32.8	11.6	156.4	28

Note:

Rainfall (mm)

PET = Potential Evapotranspiration (mm/day)

 $TMAX = Maximum Temperature (^{O}C)$ 

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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