



NIGERIAN METEOROLOGICAL AGENCY

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

Agrometeorological Bulletin No.9, Dekad 3, March (21 –31) 2015 ISSN: 2315-9790

SUMMARY

The 3rd dekad of March indicated that rainfall had spread up to Zaria and Bauchi in the northern parts of the counZtry. The Southern and Central parts of the country had surplus rainfall anomalies while the northern part had normal. ITD continue to oscillate between latitude 10^oN to 10.5^oN. Soil moisture condition in the country was neutral to surplus in the South and central parts and deficit in the North. The highest rainfall amount was recorded over Asaba with 171.9mm in 3 rain-days, followed by Ilorin with 140.5mm in 4 rain-days and Benin with 125.4mm in 5 rain-days. Maximum temperature anomalies were normal to colder than normal in most parts of the country except the extreme northern part which had warmer than normal maximum temperature anomalies. Planting of first season crops is expected to continue in the Southern part of the country while preparation for the new rainy season is expected to continue in the central part of the country.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

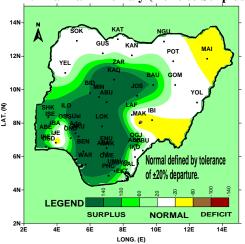
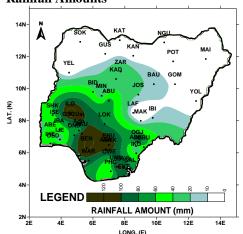


Fig.1: 3RD DEKAD MARCH, RAINFALL ANOMALIES Rainfall anomaly over the country is depicted in *Fig.1* above and it indicated most parts of the southern and central parts of the country had surplus rainfall anomalies while the extreme northern part had normal rainfall anomalies.

Rainfall Amounts



Actual rainfall amount is shown in Fig.2 above and it highlighted that rainfall has spread to the northern parts of the country. The highest rainfall amount was

recorded over Asaba with 171.9mm in 3 rain-days, followed by Ilorin with 140.5mm in 4 rain-days and Benin with 125.4mm in 5 rain-days.

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

The comparison of the actual rainfall amounts measured and normal/long term averages during the dekad over the northern and southern parts of the country is shown in *Fig.3A and Fig.3B*. Some stations in the North such as Zaria, Kaduna, Bida, Minna, Abuja, Jos, Lokoja and Ilorin recorded above normal rainfall while most stations in the South recorded above normal rainfall.

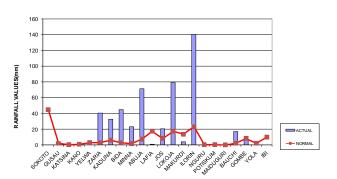


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 MARCH 2015: FOR NORTHERN AND CENTRAL STATES OF NIGERIA.

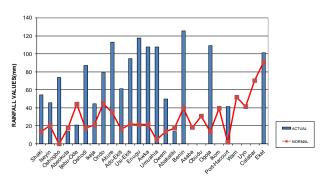


FIG. 3B: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 MARCH 2015: FOR SOUTHERN STATES OF NIGERIA.

1.3 Number of Rain Days.

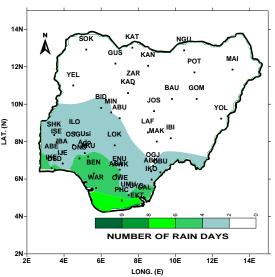


Fig.4: NUMBER OF RAIN DAYS

Fig.4 above shows the rain-days distribution over the country and it indicated that rainfall distribution in the country varies from 2 to 4 rain-days in the stations that recorded rain. Eket has the highest number of rain-days with 9 days, followed by Oshodi with 6 rain-days.

2.0 SOIL MOISTURE CONDITION

Soil moisture indices across the country for the dekad is highlighted in *Fig.5* below and it reveals that the southern and central parts of the country had neutral to surplus Soil Moisture conditions while the northern and part of central of the country had deficit soil moisture conditions.

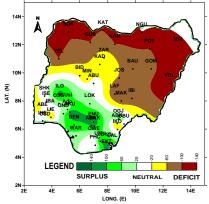


Fig.5: 3RD DEKAD OF MARCH SOIL MOISTURE INDEX (SMI

3.0 MAXIMUM TEMPERATURE TREND 3.1 Maximum Temperature Anomaly

Maximum temperatures anomalies over the country is highlighted in *Fig.6* below and it indicated that most parts of the country had normal to colder than normal maximum temperature anomalies, except the extreme

northern part of the country which had warmer than normal maximum temperature anomalies

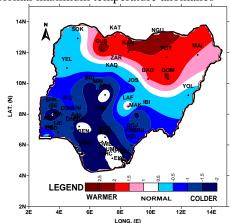


Fig.6: Maximum Temperature Anomaly.

3.2 Maximum Temperature Values.

Actual mean maximum temperature distribution across the country is shown in Fig.7 below and indicates that most parts of the country had maximum temperatures above $34^{\circ}C$ except Jos and most parts of the South which recorded $30^{\circ}C$ to $32^{\circ}C$ maximum temperature values.

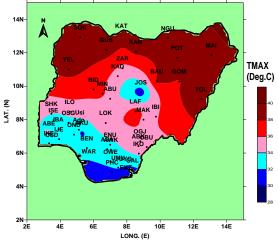


Fig. 7: Mean maximum Temperature

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF APRIL, 2015

4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to oscillate between latitudes 10deg.N and 10.5degN. The northern and central parts of the country are expected to be sunny and partly cloudy. The inland and coastal areas of the South are likely to experience cloudy weather conditions and thunderstorms.

The northern and the central states are expected to have mean maximum temperatures of the range $32 \, ^{o}C - 38 \, ^{o}C$, while the mean minimum temperatures will lie between $22 \, ^{o}C$ and $24 \, ^{o}C$. The mean maximum temperatures over

the inland and coastal areas of the South are expected to be between $30^{\circ}C$ and $34^{\circ}C$, while the mean minimum temperatures will range from $20^{\circ}C$ to $22^{\circ}C$.

Planting of first season crops is expected to continue in the Southern part of the country while preparation for the new rainy season is expected to continue in the central part of the country.

4.2 Agricultural Activity/Outlook

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

		IGION	1			1	
STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOKUTA	43.3	4	52.3	34.3	25.6	241.6	18.9
ABUJA	71.2	2	56.8	34.2	23.5	229.1	21
	13.8	2	53	35.3	25.6	247	19.2
ABAK	171.9	3	59.9	34.3	22.4	224.3	22.3
Asaba	113	5	49.8	31.6	23.1	212.9	18.9
AKURE	107.6	4	52.8	33.3	24.2	228.2	19.5
AWKA	17	1				249.5	25
BAUCHI			69.9	38.3	23.0		-
BENIN	125.4	5	67.6	32.4	24.7	258.6	23.8
BIDA	44.6	3	58.9	36.3	25.6	252.7	20.9
CALABAR							
	101.1	9	45.7	29.5	21.8	194.1	17.9
EKET	117.5	4	50.7	33.1	24.7	229.8	18.7
ENUGU	8.4	1	65	37.9	25.1	258.7	22.9
GOMBE	0	0	66	39.0	26.0	269.7	22.9
GUSAU	50.4	3	52.7	33.7	24.7	233.2	19.3
IBADAN							
IJEBU	21.1	2	47.9	32.7	25.2	230.7	17.6
IKEJA	44.7	4	47.7	32.8	25.4	232.4	17.5
ILORIN	140.6	4	61.6	35.0	22.4	227.6	22.8
	45.5	3	50.7	32.6	23.4	220	18.9
ISEYIN	20.3	2	55	30.6	19.1	185.4	21.8
JOS	32.7	1	61.5	35.2	22.4	228.8	22.7
KADUNA	0	0	69	38.4	23.3	250.9	24.6
KANO	0	0	68.3	38.0	23.0	247.5	24.5
KATSINA							
LAFIA	1	1	60.4	37.0	26.0	258.9	21.3

KTHED	EKAD						
LOKOJA	79.1	3	58.5	36.0	25.4	250.1	20.9
MAKURDI	3.9	2	59.1	35.7	24.7	244.1	21.3
MINNA	22.9	2	61.2	36.6	24.9	250.1	21.8
NGURU	0	0	XX	39.3	XX	XX	XX
OGOJA	109.2	2	59.4	35.6	24.6	243.2	21.4
OSHODI	87.1	6	48.5	33.5	26.0	239	17.6
OSOGBO	73.9	3	54.4	33.1	23.2	221.7	20.3
OWERRI	49.9	4	52.7	32.5	23.1	218	19.8
PHC	41.6	7	47.7	31.4	23.6	214.3	18
POT	0	0	72.2	38.9	22.4	249.2	25.8
SHAKI	54.3	4	57.6	34.2	23.3	228.2	21.3
SOKOTO	0	0	69.2	38.8	23.9	256.8	24.5
UMUAHIA	107.7	4	51.7	32.3	23.3	218.1	19.4
WARRI							
YELWA	0	0	64.3	38.8	26.1	269	22.4
YOLA	0	0	XX	39.8	XX	XX	XX
ZARIA	40.6	2	58.2	35.3	23.9	237.6	21.2
ADO-EKITI	61.3	3	53.2	32.6	23.0	217.8	20
USI-EKITI	94.8	3	63.9	33.5	18.8	199.8	24.7

Rainfall (mm)

PET = Potential Evapotranspiration (mm/day)

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

TMIN = Minimum Temperature (°C)

GDD = Growing Degree Day (day)

 $RAD = Radiation (MJ/m^2/day)$

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:

The Director-General/CEO,

Nigerian Meteorological Agency (NiMet),

National Weather Forecasting and Climate

Research Centre, Nnamdi Azikiwe International

Airport, PMB 615 Garki, Abuja.

E-mail: agrometbulletin@nimet.gov.ng; NiMet WEB SITE: www.nimet.gov.ng