

Agrometeorological Bulletin No.5, Dekad 2, February (11 –20) 2015 ISSN: 2315-9790

SUMMARY

The second dekad of February indicated that a number of stations in the South and some central states have recorded rain and the ITD continue to oscillate between latitude 7.5°N to 8.5°N. Soil moisture condition in the country was deficit except in part of South which had neutral to surplus conditions. Rainfall anomaly in most parts of the South was surplus. The highest rainfall amount was recorded over Port hacourt with 128.4mm in 3 rain-days, followed by Benin with 98.5mm in 3 rain-days and Eket with 78mm in 2 rain-days. Maximum temperature anomalies were warmer in the North and normal to colder than normal in the South. Harvesting of rice and vegetables is expected to continue in the northern and central parts of the country while preparation for the new rainy season is expected to continue in the South.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

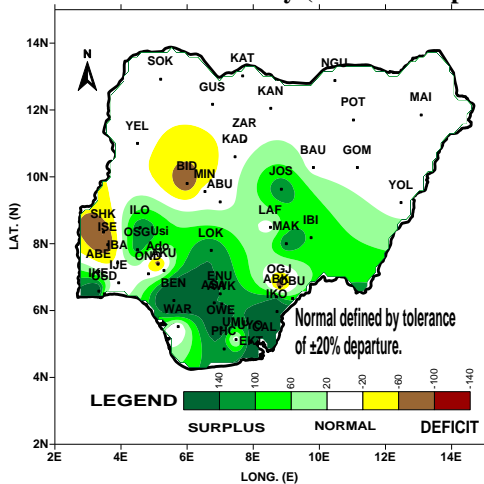
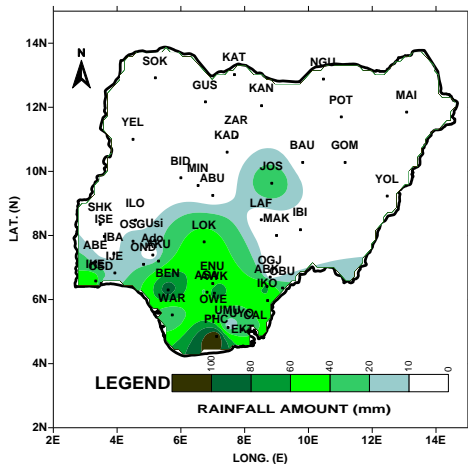


Fig.1: 2ND DEKAD FEB, RAINFALL ANOMALIES

Rainfall anomaly over the country is shown in *Fig.1* above and it indicated that northern part of the country continue to have normal rainfall anomalies, while most parts of the south had surplus rainfall anomalies except Shaki, Iseyin Ibadan and Abeokuta which showed deficit rainfall anomalies.

Rainfall Amounts



Actual rainfall amount is shown in *Fig.2* above indicating that some stations in the south have recorded rain in the dekad. *The highest rainfall amount was recorded over*

Port hacourt with 128.4mm in 3 rain-days, followed by Benin with 98.5mm in 3 rain-days and Eket with 78mm in 2 rain-days.

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 1ST DEKAD OF FEBRUARY

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*. Three stations in the North recorded above normal rainfall including; Jos, Lokoja and Makurdi (*Fig.3A*) while in the South many stations recorded above normal rainfall (*Fig.3B*).

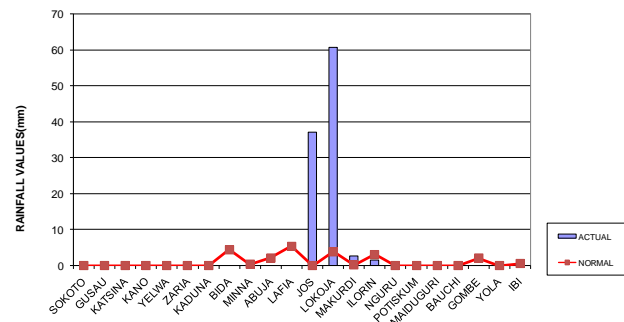


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 2 FEBRUARY 2015: FOR NORTHERN AND CENTRAL STATES OF NIGERIA.

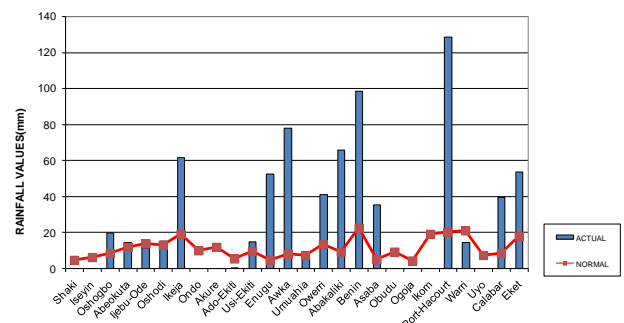


FIG. 3B: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 2 FEBRUARY 2015: FOR SOUTHERN STATES OF NIGERIA.

1.3 Number of Rain Days.

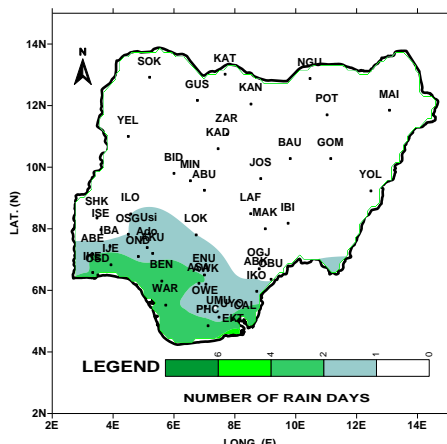


Fig.4: NUMBER OF RAIN DAYS

Rain-days distribution over the country is indicated in *Fig.4* above and it shows that rainfall distribution in the Southern part of the country varies from 1 to 3 rain-days in the few stations that recorded rain. Only Eket recorded 5 days of rain.

2.0 SOIL MOISTURE CONDITION

Fig.5 below shows soil moisture indices across the country for the dekad and it reveals that the country had deficit Soil Moisture conditions except the some parts of the South which showed neutral to surplus soil moisture conditions.

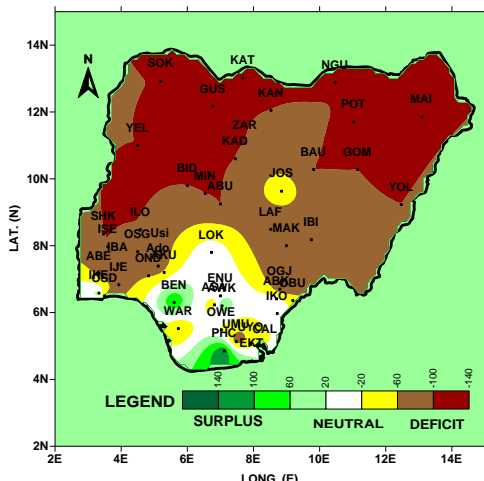


Fig.5: 2ND DEKAD OF FEBRUARY SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

Fig.6 below shows the maximum temperatures anomalies over the country and it reveals that most parts of north

and central of the country had warmer than normal maximum temperature anomalies, except Jos, Abuja and Minna which had normal anomalies. The southern half had normal to colder than normal maximum temperature anomalies.

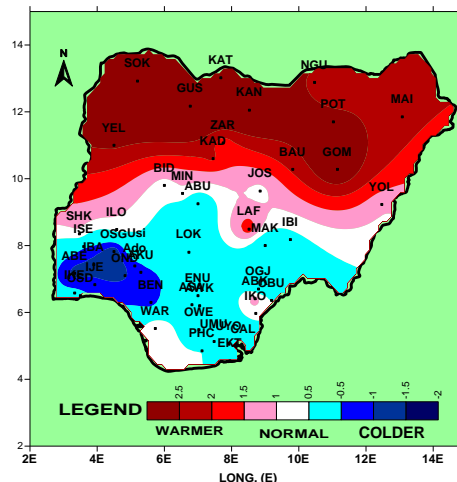


Fig.6: Maximum Temperature Anomaly.

3.2 Maximum Temperature Values.

Actual mean maximum temperature distribution across the country is highlighted in *Fig.7* below and indicates that most parts of the country had maximum temperatures above $34^{\circ}C$ except Jos and Eket stations which recorded the lowest temperature values of $30.6^{\circ}C$ and $30.1^{\circ}C$ respectively.

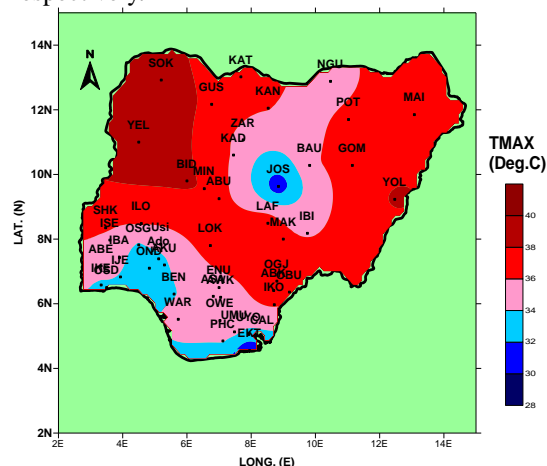


Fig. 7: Mean maximum Temperature

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 28), OF FEBRUARY, 2015

4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes $7.5^{\circ}N$ and $8.5^{\circ}N$. The northern and central parts of the country are expected to be sunny, dry and partly cloudy. The inland and coastal areas of the South are likely to experience

partly cloudy/cloudy weather conditions and localized thunderstorms.

The northern and the central states are expected to have mean maximum temperatures of the range 32^oC - 38^oC, while the mean minimum temperatures will lie between 18^oC and 26^oC. The mean maximum temperatures over the inland and coastal areas of the South are expected to be between 32^oC and 34^oC, while the mean minimum temperatures will range from 20^oC to 22^oC.

4.2 Agricultural Activity/Outlook

Harvesting of rice and vegetables is expected to continue in the northern and central parts of the country from dry season farming. In the south preparation for the new rain season is expected to continue.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOKUTA	14.3	2	56.6	35.3	22.4	208.6	23
ABUJA	0	0	59.7	36.6	22.4	214.9	23.9
ABAK	66	1	56.4	37.3	25.5	234	21.9
ASABA	35.3	2	58.2	35.9	22.6	212.2	23.4
AKURE	---	---	---	---	---	---	---
AWKA	78	2	51.1	34.9	24.9	218.8	20.3
BAUCHI	0	0	61.9	35.7	19.2	194.1	25.8
BENIN	98.5	3	47.8	33.8	24.9	231.5	19.2
BIDA	0	0	58.5	38.2	25.6	238.9	22.5
CALABAR	39.5	3	48.8	33.3	23.7	205.2	19.9
EKET	53.8	5	39.1	30.1	23.5	188.1	16.5
ENUGU	52.6	2	51.7	35.4	25.2	222.9	20.4
GOMBE	0	0	58.2	36.7	23.5	220.9	23.1
GUSAU	0	0	64	37.7	21.0	213.8	25.8
IBADAN	---	---	---	---	---	---	---
IJEBU	11.6	3	48.7	33.9	24.5	211.8	19.7
IKEJA	61.7	2	47.2	33.6	24.7	211.5	19.1
ILORIN	1.6	1	57	36.2	23.6	219.2	22.7
ISEYIN	0	0	54.2	35.2	23.5	213.5	21.8
JOS	37	1	54.1	30.6	15.9	152.4	24.3
KADUNA	0	0	61	35.8	20.1	199.2	25.2
KANO	0	0	64.2	36.1	17.9	190.1	28.9
KATSINA	---	---	---	---	---	---	---
LAFIA	0	0	59.3	37.5	24.0	227.5	23.3
LOKOJA	60.7	1	53.4	36.7	26.1	233.8	20.7
MAKURDI	2.6	1	57.5	36.4	23.4	219	22.8
MINNA	0	0	60	37.9	24.4	231.5	23.4
NGURU	0	0	XX	35.3	XX	XX	XX
OGOJA	0	0	56.3	36.2	24.0	221.3	22.3
OSHODI	15.4	3	46	33.7	25.4	215.5	18.4
OSOGBO	19.6	1	50.8	33.8	23.4	206	20.7
OWERRI	41.1	1	52.1	34.5	23.8	211.5	21
PHC	128.4	3	53	34.2	22.9	205.1	21.6
POT	0	0	64.5	36.4	18.2	192.8	26.9
SHAKI	0	0	57.9	36.4	23.5	219.5	23.1
SOKOTO	0	0	63	38.4	22.6	225	24.9
UMUAHIA	5.7	1	51.4	34.6	24.3	214.5	20.6
WARRI	14.4	2	49.4	34.8	25.5	221.5	19.6
YELWA	0	0	65	39.2	22.8	229.9	25.5
YOLA	0	0	XX	38.2	XX	XX	XX
ZARIA	0	0	61.3	35.2	18.8	190	25.7
ADO-EKITI	0.4	1	50.5	33.5	23.0	202.3	20.7
USI-EKITI	15	2	60.8	34.7	18.6	186.2	25.7

Note:
 Rainfall (mm)
 PET = Potential Evapotranspiration (mm/day)
 TMAX = Maximum Temperature (°C)
 TMIN = Minimum Temperature (°C)
 GDD = Growing Degree Day (day)
 RAD = Radiation (MJ/m²/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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