

Agrometeorological Bulletin No.8, Dekad 2, March (11 –20) 2015

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SUMMARY

The dekad under review that is 2nd dekad of March indicated that, most of the Southern parts of the country had deficit rainfall anomalies except part of the Southwest which showed surplus, while northern and central parts had normal rainfall anomalies. ITD continue to oscillate between latitude 9⁰N to 9.5⁰N. Soil moisture condition in the country was deficit except in the coastal parts of the South which had neutral to surplus conditions. The highest rainfall amount was recorded over Eket with 112.3mm in 6 rain-days, followed by Benin with 50.7mm in 5 rain-days and Oshodi with 48mm in 2 rain-days. Maximum temperature anomalies were normal to colder than normal in most parts of the country except parts South west and North east as well as Lafia, Makurdi, Gusau and Abuja which had warmer than normal maximum temperature anomalies. Planting of first season crops is expected to begin in the Southern part of the country while preparation for the new rainy season is expected to begin in the central part of the country.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

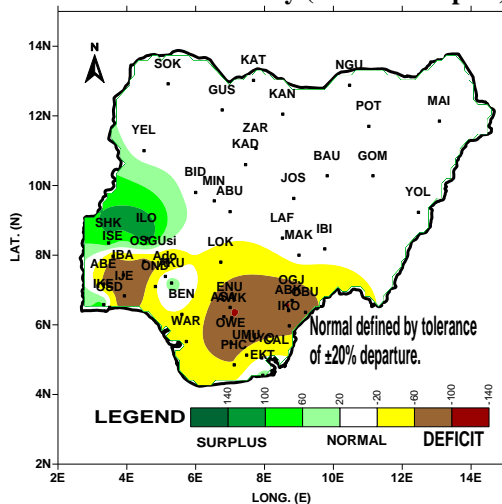


Fig.1: 2ND DEKAD MARCH, RAINFALL ANOMALIES

Fig.1 above shows rainfall anomaly over the country and it indicated that northern part of the country continue to have normal rainfall anomalies, while most parts of the south had deficit rainfall anomalies except parts of South west which showed normal to surplus rainfall anomalies.

Rainfall Amounts

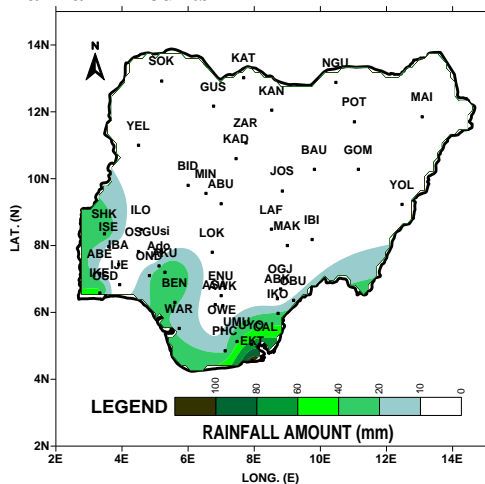


Fig.2 above highlighted actual rainfall amount and it shows that rainfall was recorded in parts of the South in the country. The highest rainfall amount was recorded over Eket with 112.3mm in 6 rain-days, followed by Benin with 50.7mm in 5 rain-days and Oshodi with 48mm in 2 rain-days.

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 2ND 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. Stations in the North recorded normal to below normal rainfall (Fig.3A) while in the South Shaki, Ikeja, Akure and Eket stations recorded above normal rainfall amounts while the rest recorded below normal rainfall (Fig.3B).

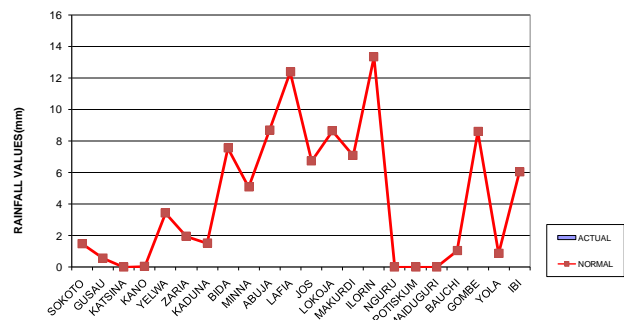


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 2 MARCH 2015: FOR NORTHERN AND CENTRAL STATES OF NIGERIA.

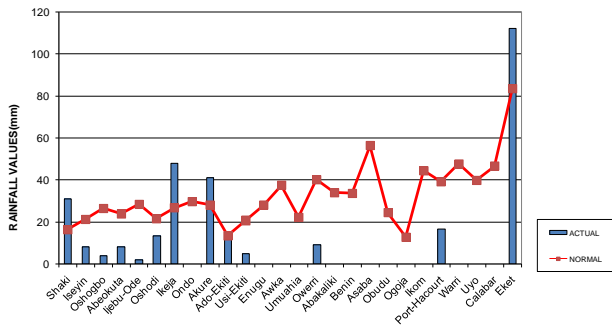


FIG. 3B: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 2 MARCH 2015: FOR SOUTHERN STATES OF NIGERIA.

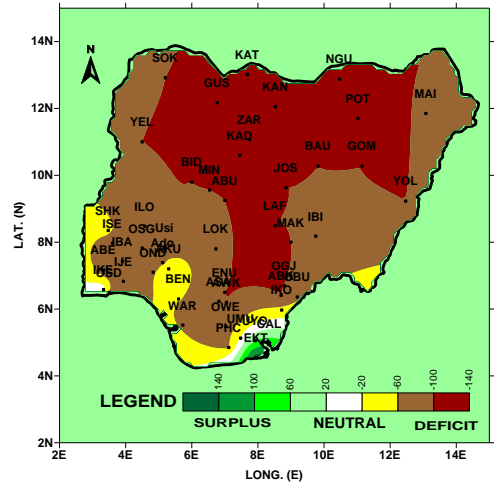


Fig.5: 2ND DEKAD OF MARCH SOIL MOISTURE INDEX (SMI)

1.3 Number of Rain Days.

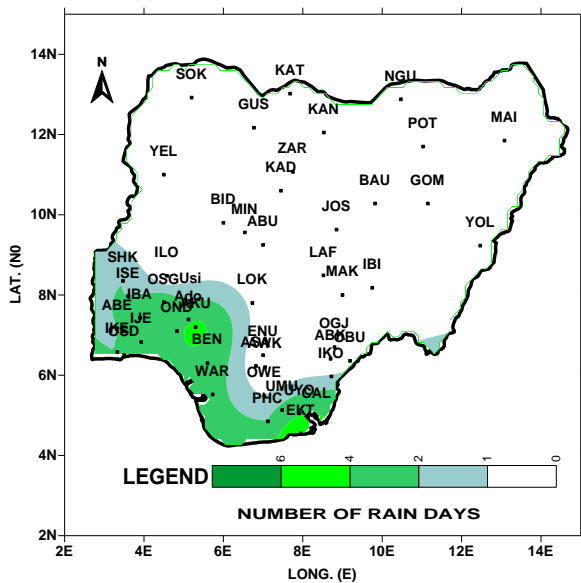


Fig.4: NUMBER OF RAIN DAYS

Rain-days distribution over the country is indicated in Fig.4 above and it shows that rainfall distribution in the Southern parts of the country varies from 1 to 3 rain-days in the few stations that recorded rain. Only Akure, Benin and Eket recorded 5 to 6 days of rain.

2.0 SOIL MOISTURE CONDITION

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

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 parts of south west, North east, Lafia, Abuja, Makurdi and Gusau which had warmer than normal maximum temperature anomalies

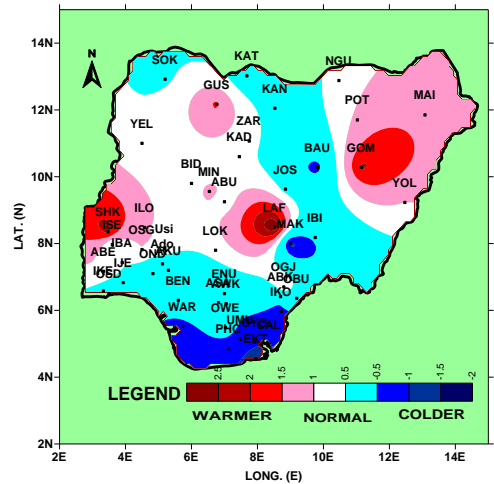


Fig.6: Maximum Temperature Anomaly.

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°C except Jos and some South-south stations which recorded 30°C to 32°C maximum temperature values.

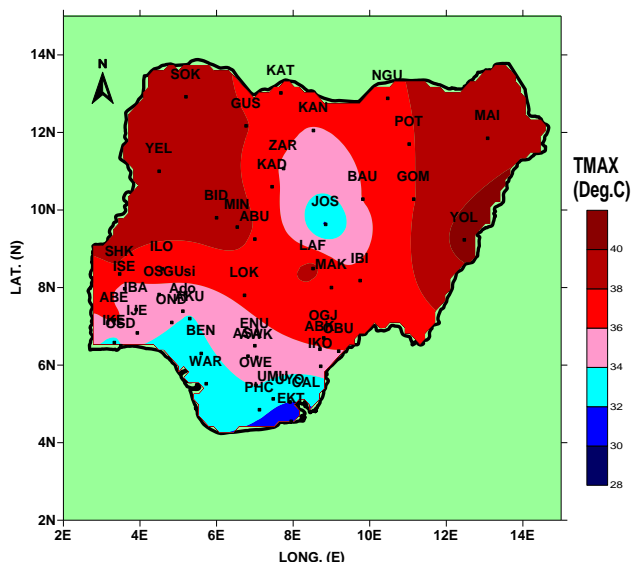


Fig. 7: Mean maximum Temperature

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 9deg.N and 9.5deg.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 30°C - 38°C, while the mean minimum temperatures will lie between 20°C and 24°C. The mean maximum temperatures over the inland and coastal areas of the South are expected to be between 32°C and 34°C, while the mean minimum temperatures will range from 20°C to 22°C.

4.2 Agricultural Activity/Outlook

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

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 31), OF MARCH, 2015

4.1 Weather Outlook

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

| STATION | RAINFALL | RAINDAY | PET | TMAX | TMIN | GDD | RAD |
|-----------|----------|---------|------|------|------|-------|------|
| ABEOKUTA | 8.3 | 2 | 54.2 | 36.4 | 25.8 | 231.3 | 21.1 |
| ABUJA | 0 | 0 | 59 | 37.6 | 24.8 | 231.9 | 23 |
| ABAK | 0 | 0 | 53.2 | 35.6 | 25 | 223 | 21 |
| Asaba | --- | ---- | ---- | ---- | ---- | ---- | ---- |
| AKURE | 41.2 | 5 | 50.6 | 33.8 | 23.9 | 208.5 | 20.5 |
| AWKA | 0 | 0 | 50.8 | 34.9 | 25.1 | 219.5 | 20.2 |
| BAUCHI | 0 | 0 | 59.2 | 36.1 | 22.3 | 212.3 | 23.9 |
| BENIN | 50.7 | 5 | 47.1 | 33.7 | 25.2 | 214.5 | 18.9 |
| BIDA | 0 | 0 | 57.4 | 38.7 | 27.3 | 250.3 | 21.7 |
| CALABAR | --- | ---- | ---- | ---- | ---- | ---- | ---- |
| EKET | 112.3 | 6 | 42.1 | 30.3 | 22.7 | 184.9 | 17.8 |
| ENUGU | 0 | 0 | 48.8 | 35.0 | 26.1 | 225.5 | 19.2 |
| GOMBE | 0 | 0 | 60.4 | 37.9 | 24.4 | 231.2 | 23.6 |
| GUSAU | 0 | 0 | 59.8 | 38.2 | 24.9 | 235.7 | 23.2 |
| IBADAN | --- | ---- | ---- | ---- | ---- | ---- | ---- |
| IJEBU | 2.1 | 2 | 48.8 | 34.5 | 25.5 | 220.2 | 19.4 |
| IKEJA | 48 | 2 | 45.6 | 33.3 | 25.3 | 212.7 | 18.4 |
| IKEJA | 48 | 2 | 45.6 | 33.3 | 25.3 | 212.7 | 18.4 |
| IKEJA | 48 | 2 | 45.6 | 33.3 | 25.3 | 212.7 | 18.4 |
| ILORIN | 0 | 0 | 58.4 | 36.8 | 24.0 | 223.8 | 23.1 |
| ILORIN | 0 | 0 | 58.4 | 36.8 | 24.0 | 223.8 | 23.1 |
| ILORIN | 0 | 0 | 58.4 | 36.8 | 24.0 | 223.8 | 23.1 |
| ISEYIN | 8.3 | 2 | 52.5 | 35.2 | 24.5 | 218.2 | 20.9 |
| ISEYIN | 8.3 | 2 | 52.5 | 35.2 | 24.5 | 218.2 | 20.9 |
| ISEYIN | 8.3 | 2 | 52.5 | 35.2 | 24.5 | 218.2 | 20.9 |
| JOS | 0 | 0 | 60 | 36.6 | 22.6 | 216.3 | 24 |
| KADUNA | --- | ---- | ---- | ---- | ---- | ---- | ---- |
| KANO | --- | ---- | ---- | ---- | ---- | ---- | ---- |
| KATSINA | 0 | 0 | 61.9 | 36.3 | 20.5 | 204.4 | 25.3 |
| LAFIA | 0 | 0 | 59.8 | 38.7 | 26.1 | 243.8 | 22.9 |
| LOKOJA | 0 | 0 | 52.8 | 37.1 | 27.3 | 242 | 20.2 |
| MAKURDI | 0 | 0 | 54.9 | 36.3 | 25.1 | 226.9 | 21.6 |
| MINNA | 0 | 0 | 61.2 | 39.2 | 26.1 | 246.2 | 23.3 |
| NGURU | 0 | 0 | XX | 37.6 | XX | XX | XX |
| OGOJA | 0 | 0 | 58.2 | 37.3 | 25.1 | 231.7 | 22.7 |
| OSHODI | 13.3 | 3 | 44.5 | 34.1 | 26.7 | 223.8 | 17.6 |
| OSOGBO | 3.9 | 3 | 54.9 | 35.5 | 24.0 | 217.4 | 21.9 |
| OWERRI | 9 | 1 | 51.5 | 34.1 | 23.6 | 208.5 | 20.9 |
| PHC | 16.5 | 2 | 47.7 | 32.6 | 23.3 | 199.7 | 19.6 |
| POT | 0 | 0 | 59.9 | 37.1 | 23.9 | 226.7 | 23.5 |
| SHAKI | 31 | 2 | 62.2 | 37.8 | 23.5 | 226.5 | 24.5 |
| SOKOTO | 0 | 0 | 62.6 | 39.0 | 24.6 | 238.2 | 24.2 |
| UMUAHIA | 13 | 1 | 48.2 | 33.7 | 24.5 | 211.3 | 19.4 |
| WARRI | --- | ---- | ---- | ---- | ---- | ---- | ---- |
| YELWA | 0 | 0 | 63.2 | 39.4 | 25.0 | 242.3 | 24.3 |
| YOLA | 0 | 0 | XX | 40.8 | XX | XX | XX |
| ZARIA | 0 | 0 | 55.4 | 35.7 | 23.6 | 216.6 | 22.2 |
| ADO-EKITI | 13 | 3 | 52.4 | 34.4 | 23.7 | 210.6 | 21.2 |
| USI-EKITI | 4.9 | 2 | 61.3 | 35.4 | 20.1 | 197.3 | 25.3 |

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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