

Agrometeorological Bulletin No.6, Dekad 3, February (21 –28) 2014 ISSN: 2315-9790

SUMMARY

The 3rd dekad of February depicted increase in rainfall activity in the Southern part of the country, especially most parts of the south-west and also some stations in the north central such as Bauchi, Abuja and Jos recorded rains. There was a general increase in temperature across the country particularly the Yelwa and Yola axes. The country still remained under deficit soil moisture conditions, however some parts of the south-south had neutral - surplus. Some stations in the South recorded significant rains, like Eket (130.2mm in 4 rain-days), Ibadan (57.7mm in 3 rain-days) and Ijebu-Ode (48.8mm in 2 rain-days). Preparation for the rainy season planting is expected to commence in the central states. In the southern parts, planting of cereals especially maize, melon, vegetables and root crops (yam, cassava and cocoyam) are expected to continue in the 1st dekad of March. Farmers are advised to take advantage of just presented NiMet's Seasonal Rainfall Prediction (SRP) for guidance on the start of rains and temperature trend forecast for the Month of March and April.

1.0 RAINFALL PARTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

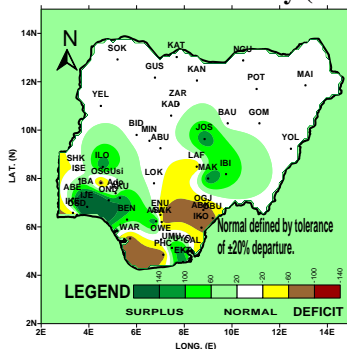


Fig.1: 3RD DEKAD RAINFALL ANOMALIES

Rainfall anomaly over the country is shown in Fig.1 above and it reveals that most parts of the South had surplus rainfall anomalies, except places like Warri, Port Harcourt and Ogoja which showed deficits. Most of the northern and central parts continued to remain normal except in Bauchi, Jos, Ilorin and Makurdi which had surplus rainfall anomalies.

1.2 Rainfall Amounts

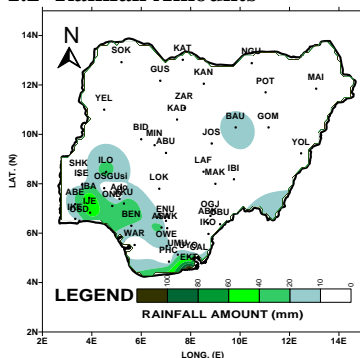


Fig.2 above shows the observed actual rainfall amount measured over the country for the dekad. Many stations across the South recorded rains. The highest rainfall amount was recorded in Eket with 130.2mm in 4 rain-days, then Ibadan and Ijebu-Ode with values as 57.7mm and 48.8mm in 3 and 2 rain days respectively.

1.3 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE DEKAD

The Fig. 3 below shows the comparison of the actual rainfall amounts measured with that of normal rainfall amount during the dekad in the southern part of the country. It revealed that most stations that recorded rains are below normal except Eket, Uyo, Asaba, Umuahia, Akure, Ijebu-Ode and Abeokuta that had above normal rainfall amounts.

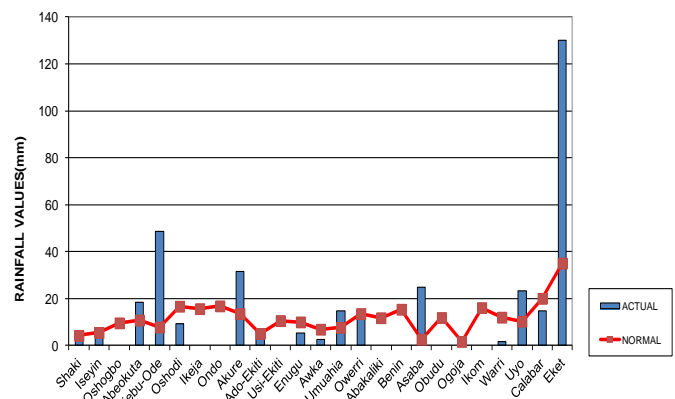


FIG. 3: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 FEBRUARY 2014: FOR SOUTHERN STATES OF NIGERIA.

1.4 Number of Rain Days.

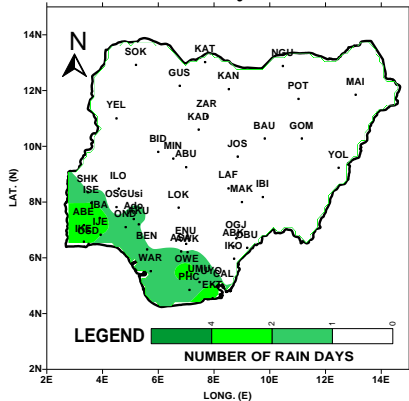


Fig.4: NUMBER OF RAIN DAYS

The Fig. 4 above is the distribution of rainfall across the country and it shows that the few stations in the South that reported rains had 1 to 4 rain-days which is good spread for the beginning of rains.

2.0 SOIL MOISTURE CONDITION

Fig. 5 below shows the soil moisture indices across the country and indicates that most parts of the country were under deficit soil moisture condition, except some areas in the south west and south-south which showed neutral to surplus soil moisture conditions.

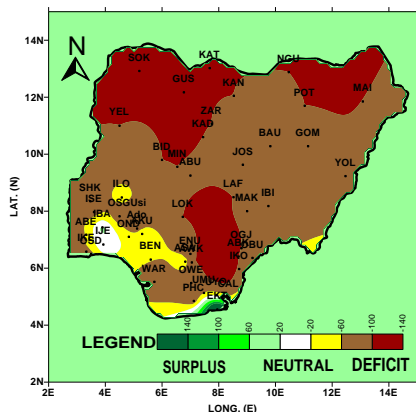


Fig. 5: 3RD DEKAD OF FEBRUARY SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

Fig.6 below shows the maximum temperature anomaly across the country. It indicates that most of the country had warmer than normal maximum temperature anomaly except for areas in blue and white in the South and around Jos which had normal-to- colder than normal maximum temperature anomalies.

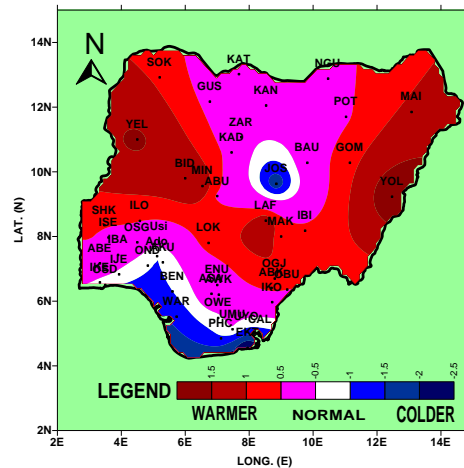


Fig.6: Maximum Temperature Anomaly.

3.2 Maximum Temperature Values

The actual mean maximum temperature distribution across the country is shown in Fig.7 below and it reveals that most parts of the country recorded maximum temperatures in the range of 34°C to 38°C. Some few stations in the South and Jos station recorded 32°C and below. However, Eket station recorded the lowest value of 30.4°C.

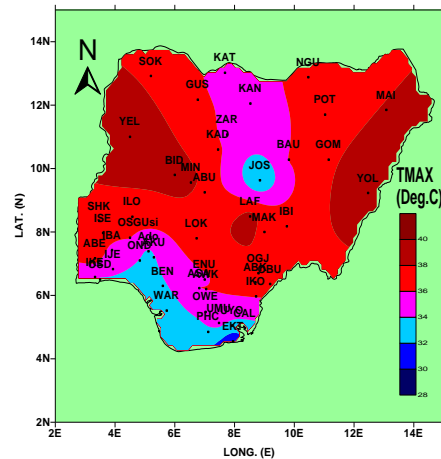


Fig. 7: Mean maximum Temperature

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF MARCH 2014

4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD)'s position is expected to fluctuate between latitudes 10deg. N and 11degN thereby placing the northern part of the country under sunny and dry weather conditions. The central part is expected to be partly cloudy with isolated thundery/rains. The inland areas are expected to be partly cloudy to cloudy with rains, while the coastal areas are expected to be cloudy with localized showers/thunderstorms.

The mean maximum temperature in the North and the central will range from 39^oC to 41^oC, while the mean minimum temperature will be between 24^oC and 29^oC. In the inland and coastal areas, the mean maximum temperatures are expected to lie between 32^oC and 36^oC, while the mean minimum temperature will range from 22^oC to 25^oC.

4.2 Agricultural Activity/Outlook

Preparation for the rainy season is expected to commence in the central states such as land clearing, manure

application and preservations of suitable seeds and seedlings. In the southern parts planting of cereals like maize, vegetables (melon, okro), root crops (yam, cassava, cocoyam) are expected to continue. Farmers are advised to take advantage of the NiMet's Seasonal Rainfall Prediction (SRP) for guidance on the start of rains and temperature trend forecast for the Months of March and April. Please collect a copy of the 2014 SRP from NiMet's offices.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

| STATION | RAINFALL | RAINDAY | PET | TMAX | TMIN | GDD | RAD |
|-----------|----------|---------|------|------|------|-------|------|
| ABEOK | 18.4 | 3 | 44.4 | 36.7 | 25.4 | 184.2 | 21.7 |
| ABUJA | 2.1 | 1 | 48.2 | 36.7 | 22.7 | 173.8 | 24.1 |
| AKURE | 31.7 | 1 | 47.1 | 33.9 | 19.0 | 147.6 | 24.9 |
| ASABA | 25 | 1 | 43.7 | 36.0 | 24.9 | 179.6 | 21.6 |
| AWKA | 2.6 | 1 | 43 | 36.1 | 25.5 | 182.7 | 21.1 |
| BAUCHI | 16.8 | 1 | 50.6 | 36.1 | 19.5 | 158.5 | 26.2 |
| BENIN | | | | | | | |
| BIDA | 0 | 0 | 47.6 | 38.5 | 25.9 | 193.4 | 22.8 |
| CALABAR | 14.8 | 1 | 39.1 | 33.1 | 23.6 | 163 | 20 |
| EKET | 130.2 | 4 | 32.8 | 30.4 | 23.4 | 151.2 | 17.2 |
| ENUGU | 5.2 | 1 | 45.6 | 35.6 | 23.0 | 170.2 | 23 |
| GOMBE | | | | | | | |
| GUSAU | | | | | | | |
| IBADAN | 57.7 | 3 | 43.7 | 35.7 | 24.5 | 176.8 | 21.7 |
| IJEBU | 48.8 | 2 | 40.8 | 34.5 | 24.5 | 171.8 | 20.5 |
| IKEJA | 8.9 | 3 | 37.4 | 33.5 | 24.9 | 169.4 | 18.9 |
| IKOM | | | | | | | |
| ILORIN | 28.6 | 1 | 47.7 | 36.9 | 23.3 | 176.8 | 23.7 |
| ISEYIN | 7.4 | 2 | 47.2 | 36.5 | 23.2 | 174.9 | 23.5 |
| JOS | 4.8 | 1 | 46.1 | 31.8 | 15.8 | 126.5 | 25.6 |
| KADUNA | 0 | 0 | 50.1 | 36.4 | 20.4 | 163.3 | 25.6 |
| KANO | 0 | 0 | 55.1 | 35.8 | 13.1 | 131.4 | 30.3 |
| KATSINA | 0 | 0 | 49.4 | 35.2 | 18.4 | 150.5 | 26 |
| LAFIA | 0 | 0 | 48.4 | 38.7 | 25.6 | 193.1 | 23.3 |
| LOKOJA | 0 | 0 | 47.7 | 37.4 | 24.2 | 182.5 | 23.4 |
| MAIDU | | | | | | | |
| MAKURDI | 4 | 1 | 46.5 | 37.5 | 25.2 | 187 | 22.6 |
| MINNA | 0 | 0 | 48.8 | 38.8 | 25.5 | 193.1 | 23.4 |
| NGURU | 0 | 0 | 52 | 36.4 | 18.1 | 154.1 | 27.1 |
| OGOJA | 0 | 0 | 48.6 | 37.7 | 24.1 | 183.3 | 23.8 |
| ONDO | 2.7 | 2 | 42.4 | 34.8 | 23.8 | 170.3 | 21.4 |
| OSHODI | 9.4 | 2 | 36.8 | 33.8 | 25.7 | 173.8 | 18.4 |
| OSOGBO | 0 | 0 | 46.3 | 36.1 | 23.1 | 172.7 | 23.2 |
| OWERRI | 14.2 | 3 | 42.3 | 34.5 | 23.6 | 168.4 | 21.4 |
| PHC | 1.2 | 1 | 40.4 | 33.6 | 23.5 | 164.7 | 20.6 |
| POT | 0 | 0 | 51.9 | 36.7 | 19.0 | 158.8 | 26.8 |
| SHAKI | 3.5 | 1 | 47.9 | 37.0 | 23.4 | 177.5 | 23.7 |
| SOKOTO | 0 | 0 | 49.2 | 37.7 | 22.7 | 177.6 | 24.4 |
| UMUAHIA | 14.7 | 1 | 42.6 | 34.8 | 23.9 | 170.5 | 21.4 |
| UYO | 23.2 | 2 | 38.4 | 33.3 | 24.2 | 165.8 | 19.5 |
| WARRI | 1.6 | 1 | 34.3 | 33.0 | 26.0 | 172.1 | 17.2 |
| YELWA | 0 | 0 | 52.4 | 39.1 | 22.7 | 183.1 | 25.7 |
| YOLA | 0 | 0 | 54.8 | 39.7 | 22.4 | 184.6 | 26.8 |
| ZARIA | 0 | 0 | 50 | 35.4 | 18.7 | 152.4 | 26.2 |
| OBUDU | | | | | | | |
| IBI | | | | | | | |
| ADO-EKITI | 6.2 | 2 | 41.9 | 33.8 | 22.7 | 162 | 21.5 |
| USI-EKITI | 47.7 | 3 | 48.8 | 33.5 | 16.6 | 136.7 | 26.5 |
| CALARMA | | | | | | | |

Note:

RAINFALL (mm)
 PET(mm/day)
 TMAX (°C)
 TMIN (°C)
 GDD (day)
 RAD (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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