

NIGERIAN METEOROLOGICAL AGENCY 33 POPE JOHN PAUL II STREET, MAITAMA DISTRICT, P.M.B. 615, GARKI, ABUJA, NIGERIA

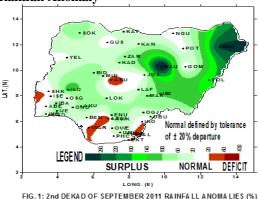
Agrometeorological Bulletin No.26, Dekad 2, September (11 – 20) 2011

SUMMARY

During the period under review, moderate to heavy rains were reported across the country with the highest amounts recorded at Eket, Bauchi and Uyo with 277.6mm, 228.5mm and 222.6mm respectively. Normal to Surplus soil moisture conditions were observed across the country except few stations like Katsina and Nguru that had deficits. Most parts of the country had normal temperatures while warmer than normal temperatures persisted along the extreme north (Katsina, Kano, Nguru, and Maiduguri). Areas in and around Jos, Shaki and Eket were colder than normal. Temperatures below 32 Deg C were recorded in most parts of the country except Sokoto, Katsina, Nguru, Potiskum, and Maiduguri which had above 32 Deg C. Harvest of maize, cassava, fruity vegetables and new yams remained the dominant field activity during the dekad.

1.0 RAINFALL TREND

1.1 Rainfall Anomaly



OVER THE COUNTRY. A NOMALIES A RE COMPUTED WITH RESPECT TO THE 1971-2000 BASE PERIOD DECADAL MEANS.

The rainfall anomaly over the country is shown in *Fig 1* above and indicates that the country recorded normal to surplus rainfall anomalies except few areas (red patches) with deficits.

1.2 Rainfall Amounts

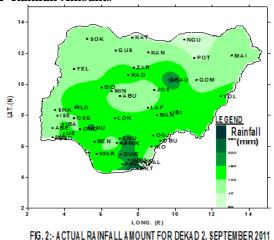


Fig 2 shows the actual rainfall received across the country and reveals that no station had below 30mm.

Highest amounts were recorded at Eket, Bauchi and Uyo with values 277.6 mm, 228.5 mm and 222.6mm respectively.

1.3 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE DEKAD

Figs 3A & B below are the comparison of the actual rainfall amount with normal rainfall values in some selected stations across the south and the north of the country and indicate that most stations in both north and south had above normal rainfall.

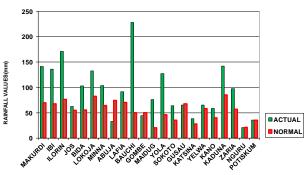


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 2. SEPT. 2011: FOR NORTHERN AND CENTRAL STATES.

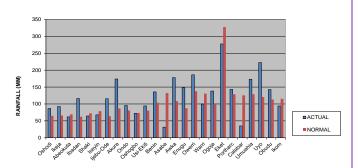


FIG. 3B: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 2, SEPT. 2011 : SOUTHERN STATES OF NIGERIA

1.4 Number of Rain Days

Fig 4 shows the number of rain days across the country and reveals that the Niger Delta area had over 5 days of rainfall while other areas had between 3 and 6 raindays except Katsina that had 2 raindays. The rainfall distribution was favourable for field crop development and supported crops that required high spread of rains. However, it was unfavourable for drying of farm produce.

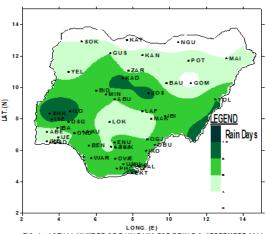


FIG. 4:- ACTUAL NUMBER OF RAIN DAYS FOR DEKAD 2, SEPTEMBER 2011

2.0 SOIL MOISTURE CONDITION

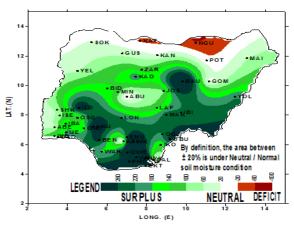


FIG. 5: 2nd DEKAD OF SEPTEMBER 2011 SOIL MOISTURE INDICES (%) OVER THE COUNTRY.

Fig 5 shows the decadal distribution of soil moisture across the country and indicates that all parts of the country had normal to surplus soil moisture conditions except areas in and around Katsina and Nguru, which recorded deficits. Generally the soil moisture across the country supported crop growth and development and other loving animals.

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

The trend of maximum temperature anomaly is shown in Fig 6 below and indicates that most parts of the

country were normal. However, warmer than normal temperatures have persisted in areas such as Sokoto, Katsina, Kano, Nguru, and Maiduguri while areas in and around Shaki, Jos and Eket were colder.

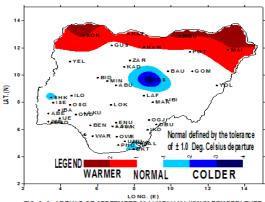


FIG. 6: 2nd DEKAD OF SEPTEMBER 2011 MEAN MAXIMUM TEMPERATURE ANOMALIES (De.g. C) OVER THE COUNTRY. A NOMALIES A RE COMPUTED WITH RESPECT TO THE 1971 - 2000 BASE PERIOD DECADAL MEANS.

3.2 Maximum Temperature Values

Fig 7 shows the actual mean maximum temperature distribution across the country and reveals that most stations across the country recorded temperatures below 32 Deg C while the extreme north including Sokoto, Katsina, Kano, Nguru, and Maiduguri recorded temperatures above 32 Deg C. Generally temperatures during the dekad favoured crop development and growth and as well as livestock performance.

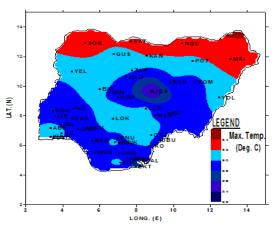


FIG. 7:- MEAN MAXIMUM TEMPERATURE FOR DEKAD 2, SEPTEMBER 2011

4.0 WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 30), OF SEPTEMBER 2011 4.1 Weather Outlook

The moist south westerly winds are expected to continue to dominate the country. The Inter Tropical Discontinuity (ITD) continued its southward movement, fluctuating between Latitude 16.5 deg. and 18.5 deg. north. This is expected to lead to convective activities across the country, especially the south and central areas.

The extreme north and central states are expected to experience cloudy weather conditions with rain showers and thundery activities.

The inland and the coastal areas of the south are expected to be cloudy with widespread rainfall activities.

Maximum temperatures for the north and central states are expected to range between $30^{0}C$ and $34^{0}C$ while the minimum temperatures will be between $20^{0}C$ and $23^{0}C$. Maximum temperatures for the inland and coastal areas are expected to range between $28^{0}C$ and $31^{0}C$ while the minimum temperatures will be from $22^{0}C$ to $24^{0}C$

Rainfall is expected to spread across the country with amounts ranging from 20mm to 300mm.

4.2 Agricultural Activity/Outlook

Harvesting of maize, cassava, new yam and fruity vegetables was in progress in parts of the south and north central and will continue in the next dekad. Maturing of cereal crops such as millet, sorghum and maize will continue in the north.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

| | | | | | | | | KANO | 58.8 | 5 | 48.1 | 32.0 | 21.6 | 187.8 | 20.2 |
|----------|--------------|---------|---------|----------------|----------|-------------|--------------------------|-----------|-------|---|------|------|------|-------|------|
| | (mm) | | | ට | (2) | | - I | KATSINA | 38 | 2 | 50 | 32.6 | 21.2 | 188.8 | 21 |
| z | RAINFALL(mm) | AY | Î | TMAX(Deg C) | | Degree Days | RADIATION (MJ/m2/day) | LAFIA | 91.7 | 6 | 41.2 | 30.6 | 23.2 | 189.2 | 17.3 |
| STATION | INF. | RAINDAY | PET(mm) | (AX () | TMIN(Deg | gree] | DIA' | LOKOJA | 132.5 | 4 | 40.3 | 30.8 | 23.8 | 193.3 | 16.8 |
| ST. | RA | RA | PE | Ţ | TM | Deg | RA (M.) | MAIDUGURI | 76.1 | 4 | 47.8 | 33.3 | 23.6 | 204.4 | 19.5 |
| ABEOKUTA | 61.9 | 5 | 41.8 | 30.8 | 23.3 | 190.4 | 17.5 | MAKURDI | 141.6 | 5 | 40.8 | 29.7 | 22.1 | 178.9 | 17.4 |
| ABUJA | 32.9 | 6 | 41.1 | 29.7 | 22.0 | 178.8 | 17.6 | MINNA | 103.5 | 8 | 44.6 | 29.6 | 20.2 | 169.2 | 19.4 |
| AKURE | 173.9 | 7 | 40.6 | 29.6 | 22.2 | 179.2 | 17.3 | NGURU | 20.7 | 3 | 50.1 | 33.8 | 23.0 | 204.1 | 20.5 |
| ASABA | 31.4 | 4 | 40.8 | 30.3 | 23.0 | 186.1 | 17.2 | OGOJA | 138.2 | 6 | 43.5 | 31.1 | 22.8 | 189.4 | 18.2 |
| AWKA | 178.1 | 7 | 38.7 | 30.0 | 23.3 | 185.8 | 16.3 | ONDO | 95.6 | 6 | 39.5 | 29.7 | 22.7 | 182.2 | 16.8 |
| BAUCHI | 228.5 | 5 | 41.7 | 29.7 | 21.7 | 176.8 | 17.9 | OSHODI | 86.5 | 5 | 34.3 | 29.8 | 24.7 | 192.1 | 14.3 |
| BENIN | 135.8 | 8 | 35.8 | 29.1 | 23.4 | 182.5 | 15.2 | OSOGBO | 72.5 | 8 | 38 | 28.7 | 22.1 | 173.9 | 16.4 |
| BIDA | 102.9 | 7 | 42.2 | 30.9 | 23.0 | 189 | 17.7 | OWERRI | 186.2 | 8 | 38.8 | 29.3 | 22.5 | 178.9 | 16.6 |
| CALABAR | 35 | 7 | 33.1 | 28.3 | 23.4 | 178.7 | 14.1 | PHC | 143 | 7 | 40.6 | 30.4 | 23.3 | 188.3 | 17 |
| EKET | 277.6 | 9 | 26 | 26.8 | 23.7 | 172.5 | 11.2 | POTISKUM | 35.8 | 5 | 37.8 | 31.3 | 22.6 | 189.5 | 17.9 |
| ENUGU | 147.9 | 7 | 42 | 29.6 | 21.7 | 176.4 | 18 | SHAKI | 64.4 | 9 | 38.1 | 27.8 | 20.8 | 163.4 | 16.7 |
| GOMBE | 44.2 | 3 | 40.3 | 29.3 | 21.7 | 175 | 17.3 | SOKOTO | 63.8 | 4 | 51.2 | 33.7 | 22.4 | 200.7 | 21 |
| GUSAU | 65.4 | 6 | 44.7 | 31.2 | 22.1 | 186.5 | 18.8 | UMUAHIA | 173.2 | 7 | 37.5 | 29.2 | 23.0 | 180.8 | 16 |
| IBADAN | 116.2 | 6 | 39.6 | 29.8 | 22.7 | 182.4 | 16.8 | UYO | 222.6 | 7 | 33.6 | 28.2 | 23.1 | 176.7 | 14.4 |
| IJEBU | 115.4 | 5 | 39.8 | 30.2 | 23.2 | 186.9 | 16.8 | WARRI | 99.8 | 8 | 36.5 | 29.8 | 24.1 | 189.5 | 15.3 |
| IKEJA | 92.5 | 4 | 38.2 | 30.1 | 23.8 | 189.8 | 16 | YELWA | 65.3 | 5 | 42.6 | 30.6 | 22.4 | 185.2 | 18 |
| IKOM | 94 | 7 | 41.1 | 30.0 | 22.5 | 182.6 | 17.5 | YOLA | 127.1 | 8 | 40.3 | 30.7 | 23.6 | 191.4 | 16.8 |
| ILORIN | 171.1 | 9 | 41.2 | 29.4 | 21.6 | 175.2 | 17.7 | ZARIA | 97.6 | 5 | 45.8 | 30.3 | 20.4 | 173.5 | 19.8 |
| ISEYIN | 67.7 | 9 | 38.9 | 28.7 | 21.6 | 171.6 | 16.9 | OBUDU | 142.7 | 7 | 37.4 | 28.6 | 22.1 | 173.3 | 16.1 |
| JOS | 62.8 | 9 | 33.2 | 23.2 | 16.8 | 119.8 | 15.9 | IBI | 135.8 | 8 | 41.7 | 29.7 | 21.7 | 177.1 | 17.9 |
| KADUNA | 141.9 | 9 | 44.5 | 29.7 | 20.2 | 169.4 | 19.3 | USI-EKITI | 94.2 | 8 | - | - | - | - | - |
| INADONA | 171.3 | | 77.3 | ZJ.1 | 20.2 | 103.4 | 10.0 | | | | | | | | |

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),

33 Pope John Paul II Street, Maitama District,

PMB 615 Garki, Abuja.

E-mail: nimetagrometbulletin@yahoo.com; NIMET WEB SITE: www.nimetng.org