



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

Agrometeorological Bulletin No.14, Dekad 2, May (11 – 20) 2011

SUMMARY

The 2nd dekad of May 2011 witnessed surplus rainfall anomalies in the southeast and some parts of the southwest while the northeast and some parts of the north central recorded deficits. Light to moderate rains with thunderstorms fell across the south and some parts of the North Central with concomitant flooding and erosion in parts of Lagos and southeast, submerging farmlands and disrupting traffic. Decadal rainfall totals of over 100mm were recorded in Warri, Asaba, Owerri, Port Harcourt Umuahia, Eket and Calabar. Most parts of the southeast had surplus soil moisture conditions while the north had deficits. Warmer than normal temperatures were experienced along the extreme north (Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, Yola and Maiduguri). Stations at Jos, Calabar and Eket were colder than normal. Temperatures below 32 Deg C were recorded in Jos and some parts of the south (Calabar, Eket, P.H, Obudu, Umuahia and Owerri) while other parts of the country had above 32 Deg C. However, temperatures of above 40 Deg C were recorded at Sokoto, Nguru and Potiskum. With appreciable rainfall in some parts of the north in the last one month, some farmers have continued to clear their farmlands for seed bed preparations while others began planting. Harvest of early maize and vegetables planted earlier on irrigated farms across the country is in progress. Farmers in the extreme north are advised to adhere to 2011 NIMET's Seasonal Rainfall Prediction (SRP) for planting dates and also are still required to continue to irrigate their farms and wait for the appropriate planting dates for rainfed cropping.

1.0 RAINFALL TREND

1.1 Rainfall Anomaly

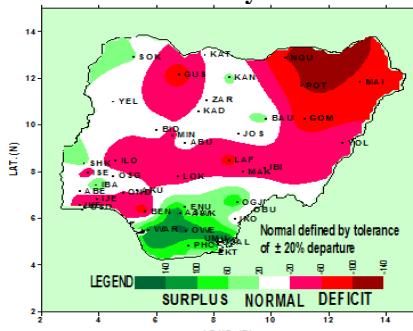


FIG. 1: 2nd DEKAD OF MAY 2011 RAINFALL ANOMALIES (%) OVER THE COUNTRY. ANOMALIES ARE COMPUTED WITH RESPECT TO THE 1971 - 2000 BASE PERIOD DECADEAL MEANS

The rainfall anomaly during the dekad is shown in *Fig 1* above and indicates that the southeast and parts of Lagos, Ibadan, Shaki, Bauchi, Kano and Sokoto had surplus (green areas) while the northeastern flank of the country had deficit rainfall anomalies. The white were normal.

1.2 Rainfall Amounts

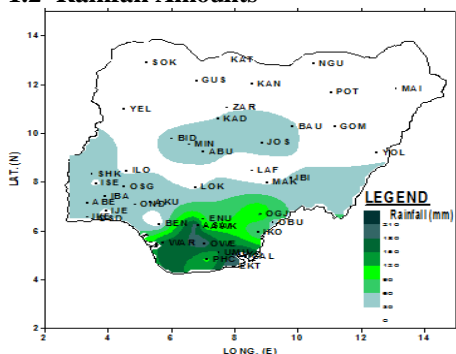


FIG. 2: ACTUAL RAINFALL AMOUNT FOR DEKAD 2, MAY 2011

Fig 2 shows the rainfall received across the country and reveals that most parts of the south and parts of the north central (in green) received over 60mm of rains with heavy thunderstorms in Lagos and some parts of the south with concomitant flooding and erosion, submerging farmlands and disrupting traffic. Most parts of the north (in white) had below 30mm of rainfall. Farmers in the extreme north are advised to prepare their farmlands in readiness for the approaching rainy season.

1.3 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE DEKAD

The comparison of the actual rainfall amount with normal rainfall values in some selected stations across the south and north is shown in *Figs 3A & B* below. *Fig 3A* shows that most stations in the north which had rains were below normal while *Fig 3B* shows that most stations in the south were above normal.

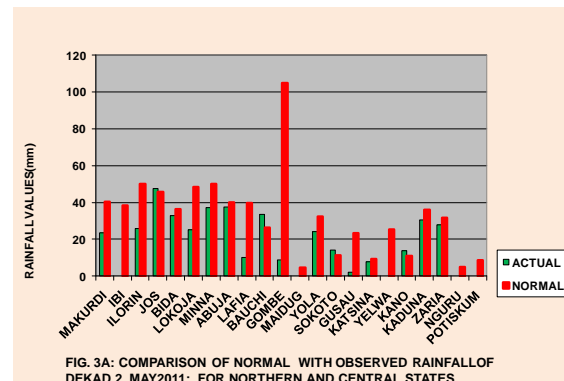
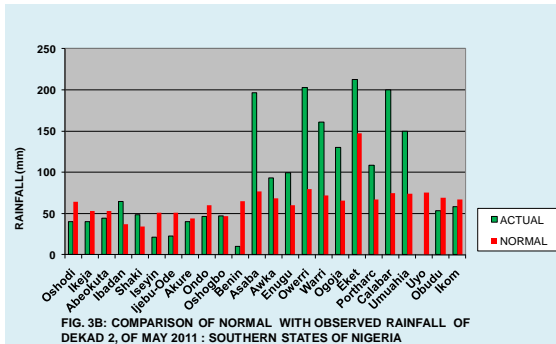


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL FOR DEKAD 2, MAY 2011: FOR NORTHERN AND CENTRAL STATES.



1.4 Number of Rain Days

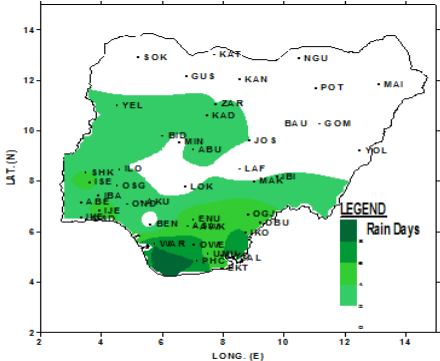


FIG. 4: ACTUAL NUMBER OF RAIN DAYS FOR DEKAD 2, MAY 2011

Fig 4 shows the number of rain days across the country and reveals that most stations in the north had less than 2 days of rainfall while the south and some parts of the north central had between 2 and 8 rain days. Parts of the Niger Delta had over 6 days of rainfall and favourable for optimal crop development especially for crops that required good spread of rains.

2.0 SOIL MOISTURE CONDITION

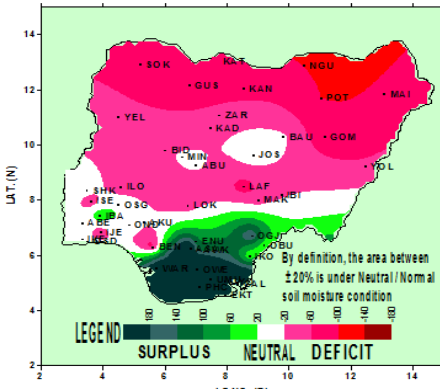


FIG. 5: 2nd DEKAD OF MAY 2011 SOIL MOISTURE INDICES (%) OVER THE COUNTRY.

Fig 5 shows the decadal distribution of soil moisture across the country and indicates that most parts of the southeast had surplus soil moisture condition while the north had predominantly deficits. Irrigation is still advised in parts of the north pending the adequate distribution of rains.

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

The trend of maximum temperature anomaly over the country is shown in Fig 6 and indicates that warmer than normal temperatures were experienced along the extreme north (Sokoto, Gusau, Katsina, Kano, Nguru, Potiskum, Maiduguri and Yola) while Jos and Eket were colder than normal. The white areas were normal with no significant change when compared with the normal temperatures.

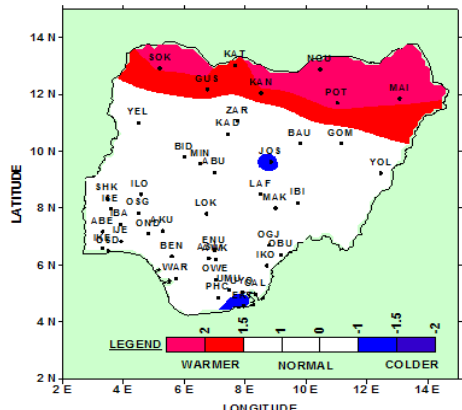


FIG 6. MEAN MAXIMUM TEMPERATURE ANOMALIES(%) OVER THE COUNTRY FOR DEKAD 2, OF MAY 2011. ANOMALIES ARE COMPUTED WITH RESPECT TO THE 1971-2000 BASE PERIOD DECADEAL MEANS

3.2 Maximum Temperature Values

Fig 7 below shows the actual mean maximum temperature distribution and reveals that Jos and some parts of the south(Eket, P.H, Calabar, Umuahia, Owerri and Obudu,) recorded temperatures below 32 Deg C while other parts of the country had above 32 Deg C. However, temperatures of above 40 Deg C were recorded at Sokoto, Nguru, Potiskum and Maiduguri that might predispose both man and livestock to heat related diseases.

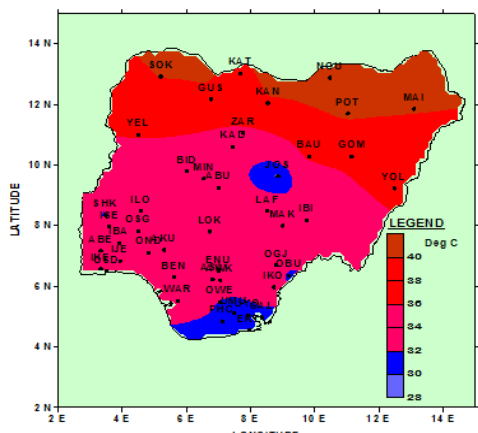


FIG 7. MEAN MAXIMUM TEMPERATURES(Deg C) FOR DEKAD 2, OF MAY 2011

4.0 WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 31), OF MAY 2011

4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD's) position is expected to move further northward, oscillating between Latitude **14.5 deg. north and 16.5 deg. north** during the dekad. As the ITD moves northward outside the country, more inflow of moist southwesterly and active convective activities into the northern parts of the country is expected

As a result of the position of the ITD, the extreme North will experience partly cloudy weather condition with localised rains while the central states will be cloudy in the morning with thundery activities in the afternoon and towards evening. The inland areas are expected to experience cloudy weather conditions later in the day while the coastal areas will experience localized showers.

Maximum temperatures for North and Central states are expected to range between **33deg C and 40 deg C** while the minimum temperatures

will range from **24 deg C to 28 deg C**. Maximum temperatures for Inland and Coastal states are expected to range from **32 deg C to 34 deg C** while minimum temperatures will be between **23 degC and 25 deg C** during the period. Predicted rainfall amount is expected to range from 0.0mm from the extreme north to 200mm in the coastal areas.

4.2 Agricultural Summary

Planting of staple food crops continued in most parts of the north central while in the extreme north, clearing of farmlands in preparation of planting is dominant.

In parts of the south and north central, harvest of early maize and vegetables planted earlier on irrigated farms is in progress

Farmers in the extreme north are still advised to continue to irrigate their old crops in field, prepare their farms in readiness for planting of new crops and adhere to 2011 NIMET's Seasonal Rainfall Prediction (SRP) for appropriate planting dates for rainfed cropping .

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATIONS	TOTAL RAINFAL (mm)	TOTAL RAIN DAYS	EVAPOTRANSPIRATION (mm)	MEAN MAXIMUM TEMP (°C)	MEAN MINIMUM TEMP (°C)	DEGREE DAYS (MAIZE)	MEAN RADIATION (MJ/m ² /day)
ABEOKUTA	44	3	45.3	33.6	23.9	207.5	18.4
ABUJA	37.4	3	43.2	33.4	24.6	210.1	17.5
AKURE	40.3	3	43.7	32.2	22.8	194.6	18.1
ASABA	196.8	5	47.8	34.0	23.3	206.3	19.5
AWKA	93.3	5	43.2	32.6	23.7	201.2	17.8
BAUCHI	33.5	1	38.5	36.6	25.6	210.8	15.6
BENIN	10	1	44.1	33.0	23.8	203.6	18.1
BIDA	33	3	43.1	33.6	24.8	212.2	17.4
CALABAR	199.9	7	39.6	31.6	24.0	198.8	16.4
EKET	212.6	5	29.3	29.9	25.5	196.6	12.1
ENUGU	99.2	6	43.6	32.2	22.9	195.3	18.1
GOMBE	8.7	1	52.3	36.9	24.8	228.7	20.5
GUSAU	2.1	1	56.2	39.7	26.5	250.8	21.3
IBADAN	64.7	3	43.1	32.8	24.0	203.7	17.6
IJEBU	22.8	6	40.9	32.1	24.1	201.4	16.8
IKEJA	39.9	3	41.5	33.2	25.3	212.9	16.7
IKOM	58.3	6	44.1	32.9	23.7	202.9	18.1
ILORIN	25.7	2	45.6	33.7	23.9	208.3	18.5
ISEYIN	21.3	5	44.7	32.7	23.0	198.7	18.5
JOS	47.6	2	44.2	29.7	18.8	162.2	19.5
KADUNA	30.5	4	46.8	33.3	22.5	198.7	19.3
KANO	13.9	2	58	39.8	25.5	246.7	22.1
KATSINA	7.7	1	58.5	39.4	24.2	238.1	22.6
LAFIA	10.1	1	42.7	34.4	26.0	222.3	16.9
LOKOJA	25.2	1	43.2	33.9	25.4	216.5	17.3
MAIDUGURI							
MAKURDI	23.5	2	42	33.0	24.6	208.2	17.1
MINNA	37.2	1	45.1	33.1	23.1	201.2	18.5
NGURU	0	0	62.1	41.6	25.6	256.1	23.3
OGOJA	130	6	45.2	33.3	23.7	204.8	18.5
ONDO	46.6	3	41.5	32.0	23.6	198.5	17.1
OSHODI	40	2	38.4	32.8	26.1	214.5	15.4
OSOGBO	47.2	3	41.4	32.0	23.6	198.5	17.1
OWERRI	203	7	42.9	31.9	22.9	194.4	17.8
PHC	108.9	8	41.3	31.7	23.3	195.5	17.1
POTISKUM	0	0	58.9	40.5	26.1	253.1	22.2
SHAKI	48.7	4	42.5	31.8	22.7	192.7	17.7
SOKOTO	14	1	54.1	40.1	28.2	261.3	20.1
UMUAHIA	150	5	40.9	31.5	23.4	194.6	17
UYO							
WARRI	160.8	8	44.1	32.6	23.2	198.9	18.2
YELWA							
YOLA	24.3	1	51.1	37.1	25.7	234.4	19.8
ZARIA	27.8	2	51	35.2	22.8	210.4	20.6
OBUDU	53.5	5	41.3	31.7	23.4	195.6	17.1

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