

Agrometeorological Bulletin No.17, Dekad 2, June (11 –20) 2014

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SUMMARY

The 2nd dekad of June showed that the Inter Tropical Discontinuity (ITD) was above the country and rains had extended to most parts of the Northern states except Borno. Normal to above-normal rainfall was recorded in the North except Kano, Potiskum, Gombe and Maiduguri. Deficit rainfall anomaly was recorded over the inland states of the South-West and the South-East. Maximum temperatures still remained high especially in Maiduguri and environs. The highest rainfall amount was recorded over Port-Harcourt with 169.7mm in 6 rain-days which was closely followed by Ilorin with 169.4mm in 5 rain-days. Onset of rains had occurred in every part of the country except for Maiduguri that had delayed-onset which could be attributed to El-Nino effect. Advance preparation for the new season continued in the extreme northern part of the country while planting of cereal and tuber/root crops continued in the central states. In the South, weeding of field crops and harvesting of new corn/maize and vegetables continued.

1.0 RAINFALL PARTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

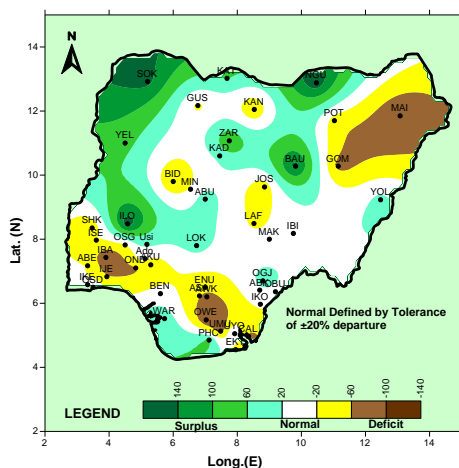


Fig.1: 2ND DEKAD JUNE RAINFALL ANOMALIES

Rainfall anomaly over the country is shown in Fig.1 above and it reveals that most of the north western parts of the country had surplus rainfall anomalies while the north-eastern (Maiduguri, Gombe and Potiskum) and the inland states of the south-west and the south-east had deficit rainfall anomalies. The extreme central part remained normal with mild deficits over Lafia, Jos, Bida and Minna.

1.2 Rainfall Amounts

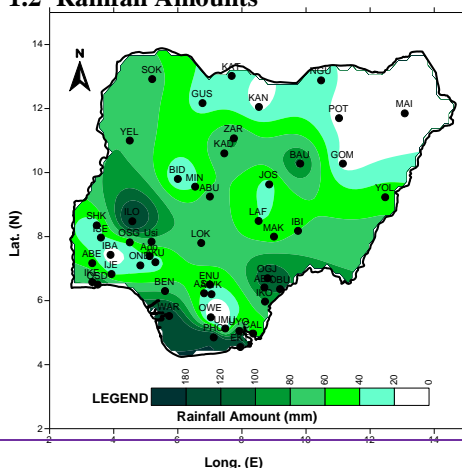
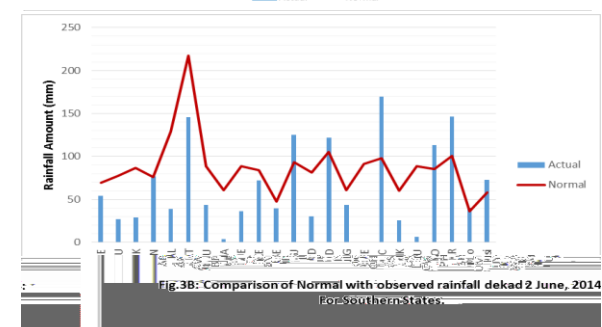
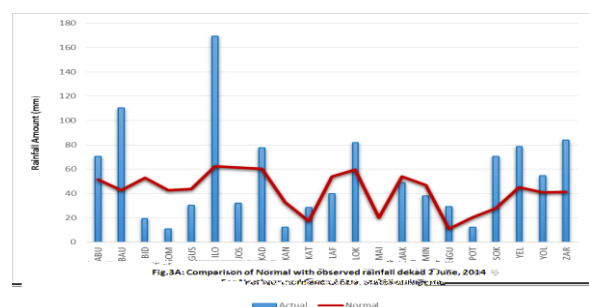


Fig.2 above shows the actual observed rainfall amount measured over the country for the dekad. Stations across the country recorded moderate to good rainfall except Maiduguri and Kano. The highest rainfall amount was recorded over Port-Harcourt with 169.7mm in 6 rain-days, followed by Ilorin and Warri with values of 169.4 in 5rain-day and 146.3mm in 6 rain-days respectively.

1.3 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE DEKAD

The comparison of the actual rainfall amounts measured and normal during the dekad over the northern and southern parts of the country is shown in Fig.3A and Fig.3B below. Above normal condition was experienced over Abuja, Bauchi, Ilorin, Kaduna, Lokoja, Sokoto, Yelwa and Zaria in the North (Fig.3A). Most stations in the South in Fig.3B had below normal rainfall except Ogoja, Ondo, Port-Harcourt, Uyo, and Warri which recorded above normal rainfall.



1.4 Number of Rain Days.

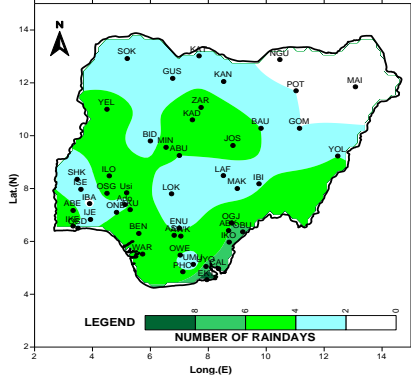


Fig.4: NUMBER OF RAIN DAYS

The Fig. 4 above is the distribution of rainfall across the country and it generally shows that most stations in the country recorded 3 to 5 rain-days, however, some stations in the South recorded as high as 6 to 10 with Eket having the highest rain-day of 10 days. The distribution was quite good for crop growth and development, although few stations in the extreme North recorded 1 to 4 rain-days with Maiduguri reporting zero rain-day.

2.0 SOIL MOISTURE CONDITION

Fig. 5 below shows the soil moisture indices across the country and indicates that stations in the north-eastern part of the country were under deficit soil moisture conditions while some stations in the South and central states had neutral/normal to surplus soil moisture conditions. However, very few stations in the south-west like Ibadan and environs had deficits.

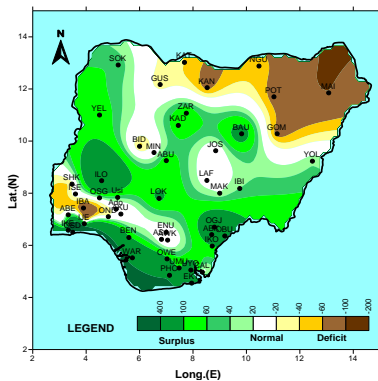


Fig.5: 2ND DEKAD OF JUNE SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

Fig.6 below shows the maximum temperature anomaly across the country. It indicates that Maiduguri, Potiskum, Gombe, Bida and Minna had warmer than normal maximum temperature. Yola, Ekiti and Eket recorded colder than normal maximum Temperature anomalies.

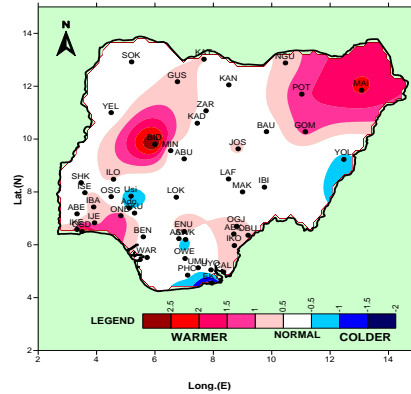


Fig.6: Maximum Temperature Anomaly.

3.2 Maximum Temperature Values.

The actual mean maximum temperature distribution across the country is shown in Fig.7 below and it reveals that the extreme North of the country recorded maximum temperatures in the range of 36°C to 42°C. Most stations in the South and central states recorded 32°C and below.

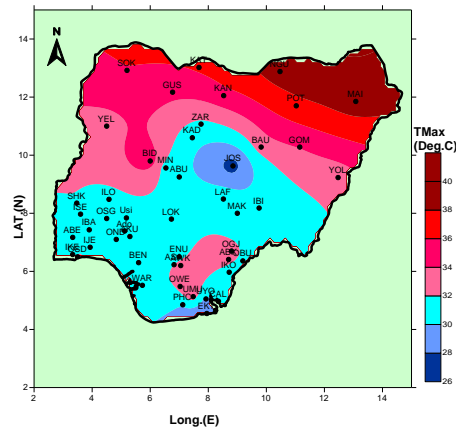
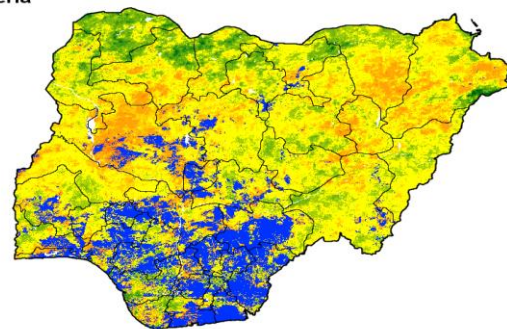


Fig. 7: Mean maximum Temperature

Nigeria



NDVI anomaly
Relative difference to Long Term Average
Dekad 2 June 2014
METOP-AVHRR
WGS84, Geographic Lat/Lon



Fig.8 2ND DEKAD OF JUNE NORMALIZED DIFFERENTIAL VEGETATIVE INDEX (NDVI)

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 30), OF JUNE 2014

4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is expected to oscillate between latitudes 18deg. N and 20degN. This feature is expected to place the northern part of the country under Cloudy weather conditions with rains/isolated thunderstorms. The central part is expected to be cloudy with thunderstorm/rains. The inland and coastal areas are expected to be cloudy with heavy rains/thunderstorms.

The mean maximum temperature in the North and the central will range from 34 °C to 41°C, while the mean minimum temperature will be between 22 °C and 27°C. In the inland and coastal areas, the mean maximum

temperatures are expected to lie between 28°C and 31 °C, while the mean minimum temperature will range from 22°C to 24°C.

4.2 Agricultural Activity/Outlook

Planting of cereal crops is expected to continue in the central and parts of the northern states. In the South, weeding of cropped fields and planting of new crops are on-going and harvesting of vegetables and early maize. On-set of rains had been established over the country except Maiduguri in the North-East. Farmers especially in the North are advised to use the NiMet's 2014 Seasonal Rainfall Prediction (SRP) for good agricultural planning and increased yields and other relevant publications like the Drought and Flood Monitor bulletins.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFAL L	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOK	54.4	5	39	31.0	23.9	199.2	15.9
ABUJA	70.7	4	39	30.7	22.1	184.3	16.5
AKURE	27.2	5	37	29.9	22.3	180.9	15.7
ASABA	-	-	-	-	-	-	-
AWKA	28.6	6	40	32.3	24.0	201.7	16.4
BAUCHI	110.6	4	44	33.0	23.0	200.4	17.9
BENIN	76.9	6	37	30.9	23.8	193.7	15.3
BIDA	19.5	3		35.3	24.9	221	20
CALABAR	38.7	7	38	30.5	22.5	185.0	16.1
EKET	145.7	10	38	28.0	19.3	156.5	16.9
ENUGU	43.2	3	43	31.7	21.5	185.9	18.2
GOMBE	11.0	2	46	34.1	23.4	207.7	18.5
GUSAU	30.2	3	46	34.5	23.6	210.1	18.4
IBADAN	3.9	1	37	31.1	23.6	193.5	15.6
IJEBU	36.4	4	37	30.8	23.4	191.0	15.5
IKEJA	72.3	5	35	30.8	24.1	194.8	14.6
IKOM	-	-	-	-	-	-	-
ILORIN	169.4	5	39	31.1	22.8	189.5	16.4
ISEYIN	39.4	3	38	30.3	22.4	183.5	16.1
JOS	32	5	39	27.0	16.9	139.5	18.0
KADUNA	77.6	5	42	30.8	20.7	177.4	17.9
KANO	12.3	3	47	35.4	24.5	219.1	18.5
KATSINA	28.5	4	47	36.3	25.3	228.1	18.6
LAFIA	39.9	3	40	31.6	22.9	192.5	16.7
LOKOJA	81.7	3	38	31.7	24.1	198.8	15.6
MAIDU	0.0	0	51	39.2	27.8	255.3	19.0
MAKURDI	49.1	3	41	31.0	21.5	182.6	17.4
MINNA	37.9	5	40	31.1	22.2	186.5	16.7
NGURU	29.4	1	53	53	26.1	245.3	20.1
OGOJA	125.4	6	43	43	22.8	195.8	17.6
ONDO	30.5	8	38	38	23.6	193.6	15.8
OSHODI	121.6	3			25.6	210.7	16.5
OSOGBO	43.5	5	36	36	22.7	183.7	15.3
OWERRI	-	-	-	-	-	-	-
PHC	169.7	6	36	36	23.0	185.5	15.1
POT	12.3	2	49	49	26.0	236.6	19.0
SHAKI	25.8	3	41	41	22.6	192.3	17.2
SOKOTO	70.4	2	45	45	25.6	227.1	17.7
UMUAHIA	6.4	2			23.3	203.7	20.1
UYO	113	7	32	32	23.7	186.2	13.6
WARRI	146.3	6	38	38	24.3	200.1	15.5
YELWA	78.6	5	42	42	23.9	206.2	17.3
YOLA	54.6	4	40	40	24.5	207.0	16.3
ZARIA	84.1	5	43	43	21.4	185.0	18.1
OBUDU	-	-	-	-	-	-	-
IBI	-	-	-	-	-	-	-
ADO-EKITI	44.1	3	37	38	21.8	194.7	19
USI-EKITI	56.2	3	38	37	18.2	169.6	23
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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