

Agrometeorological Bulletin No.23, Dekad 2, AUGUST (11 –20) 2014 ISSN: 2315-9790

SUMMARY

The second dekad of August 2014 was characterized by the retreat (southward movement) of the Inter Tropical Discontinuity (ITD), however its position remained above the country with general widespread of rainfall activities across the country. Below-normal rainfall was recorded over Sokoto, Shaki, Oshogbo, Lokoja, Benin and Eket. The highest rainfall amount was recorded at Uyo with 195.6mm in 4 rain-days, followed by Abuja with 167.2mm in 7 rain-days and Abakaiki with 164mm in 4 rain-day. Maximum temperature values were now low with the highest value of 31.4⁰C over Nguru, while Jos recorded the lowest value of 23.2⁰C. Harvest of new yam, sweet potatoes, groundnut, fresh vegetables and corn/maize continued across the country; In the extreme North earthen and fertilizer applications were major activities during the dekad and would continue in the next dekad.

1.0 RAINFALL PARTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

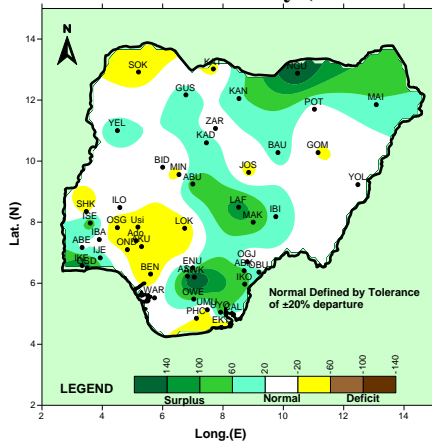
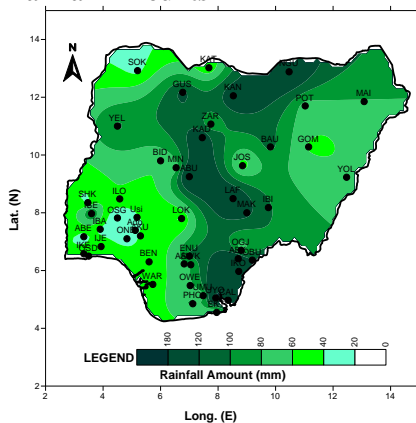


Fig.1: 2ND DEKAD AUGUST RAINFALL ANOMALIES

Fig.1 above shows the rainfall anomaly over the country and it reveals that areas in and around Nguru, Lafia, Asaba, and Ikeja had surplus rainfall anomalies, while Sokoto, Shaki, Lokoja, Akure, Benin, Eket and Port-Harcourt experienced deficit anomalies as compared to the normal (1981-2010). Yola and Gombe had shown recovery from the severe deficits experienced during the 1st dekad of August.

Rainfall Amounts

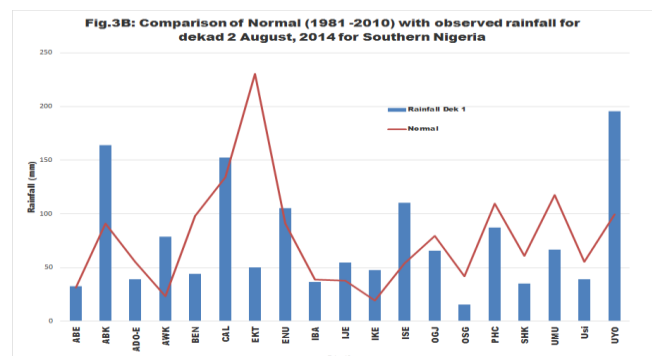
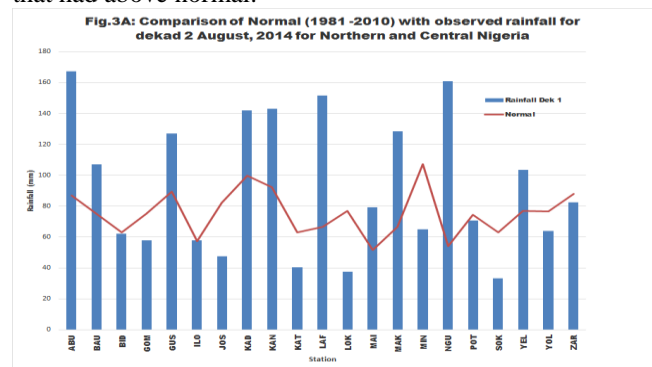


The actual observed rainfall amount measured over the country for the 2nd dekad of August is shown in Fig.2

above. Most stations across the country recorded fairly good rainfall. The highest rainfall amount was recorded at Uyo with 195.6mm in 4 rain-days, followed by Abuja with 167.2mm in 7 rain-days and Abakaliki with 164mm in 4 rain-day.

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 2ND DEKAD OF AUGUST

Figs.3A and 3B below depict 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 respectively. Above-normal conditions were recorded over Abuja, Kaduna, Kano, Lafia and Nguru while Sokoto, Minna, Jos, Katsina and Gombe recorded below normal rainfall as seen in Fig.3A. Most stations in the South in Fig.3B recorded normal to below-normal rainfall except Abakaliki, Iseyin and Uyo that had above normal.



1.3 Number of Rain Days.

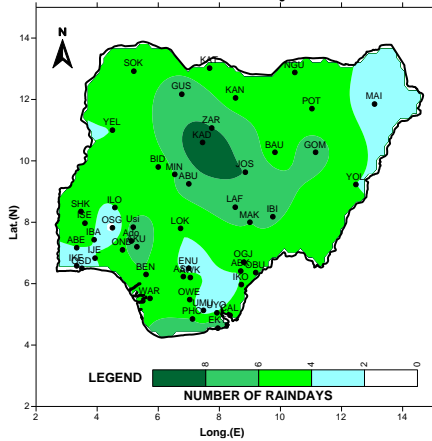


Fig.4: NUMBER OF RAIN DAYS

The rainfall distribution across the country is shown in Fig. 4 above and it reveals that most stations in the country recorded at least 2 rain-days except Oshogbo that had just 1 rain-day during the dekad. Stations in the South recorded as high as 4 to 8 rain-days and it was surprised to record as high as 10 rain-days in the North as reported in Kaduna. The rainfall distribution was quite adequate and good for rain-fed agriculture and it favoured crop growth and development and harvesting of root crops while it impacted farm weeding in some areas with high distributions.

2.0 SOIL MOISTURE CONDITION

Fig. 5 below shows the soil moisture indices across the country in the 2nd dekad of August and it indicates that the country was under normal to surplus soil moisture conditions except the Sokoto, Oshogbo, and Abeokuta that experienced deficit soil moisture.

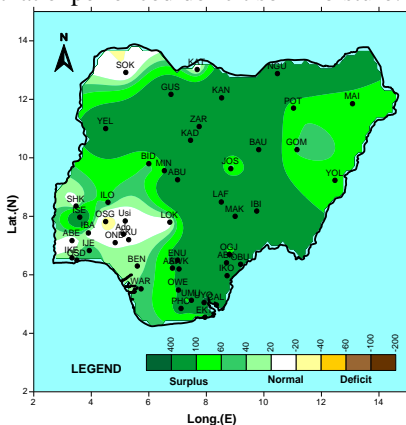


Fig.5: 2ND DEKAD OF AUGUST SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

Fig.6 below shows the maximum temperature anomaly across the country. It indicates that the country, generally experienced normal to colder than normal maximum temperature. However, Abakaliki, Awka, Port-Harcourt

and Calabar experienced warmer than normal temperature.

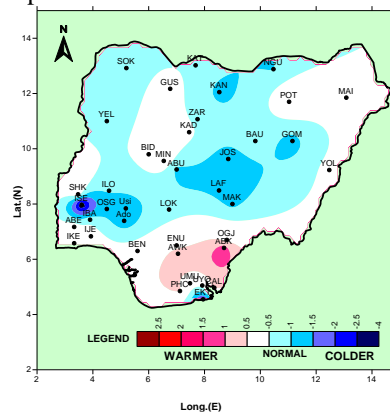


Fig.6: Maximum Temperature Anomaly.

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 with exception of Kano and Gusau recorded maximum temperatures in the range of 30°C to 32°C. The Central states had ranges from 24°C to 30°C. Stations in the southern states recorded 30°C and below. The highest value of 31.4°C was recorded over Nguru, while Jos recorded the lowest value of 23.2°C

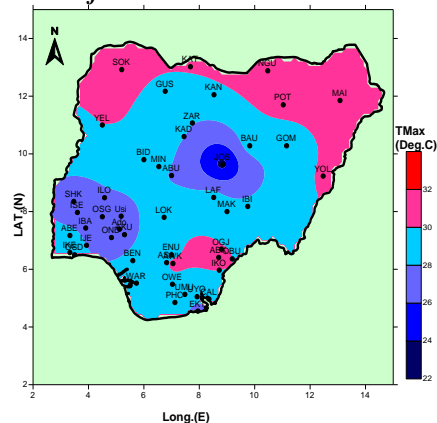


Fig. 7: Mean maximum Temperature

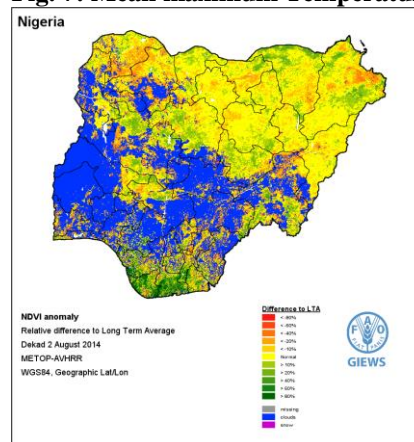


Fig.8: Normalized Difference Vegetative Index (NDVI)

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 31), OF AUGUST 2014

4.1 Weather Outlook

The position of the Inter Tropical Discontinuity (ITD) is expected to oscillate between latitudes 17deg. N and 19degN. The northern part of the country is expected to have cloudy weather conditions with occasional thunderstorms/rains. The central part is expected to be cloudy with thunderstorm/rains while the inland and coastal areas are expected to be cloudy with rain showers.

The mean maximum temperatures in the North and the central will range from 24 °C to 32°C, while the mean minimum temperature will be between 16 °C and 24°C.

In the inland and coastal areas, the mean maximum

temperatures are expected to lie between 27°C and 30 °C, while the mean minimum temperature will range from 20°C to 23°C.

4.2 Agricultural Activity/Outlook

Harvesting of new yam, sweet potatoes, fresh corn and fresh vegetables was the major activity in the central southern states and will continue. In the North, farmers were engaged in harvesting of fresh vegetables and sweet potatoes, groundnut, earthen and fertilizer applications. Farmers are advised to use the NiMet's relevant publications and weather information such as the Drought and Flood Monitor bulletin, dekad agromet bulletin, daily weather information, etc.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOK	32.8	4	35.9	29	22.6	177.8	15.3
ABUJA	167.2	7	36.4	27.7	20.6	161.6	16.1
ABAK	164	4	39	30.5	23.3	189	16.5
AWKA	78.5	5	38.5	30.2	23.2	186.7	16.2
BAUCHI	106.9	5	38.6	29	21.2	170.9	16.7
BENIN	43.9	6	34.2	28.5	22.8	176.2	14.7
BIDA	62.2	5	38.9	29.9	22.4	181.3	16.6
CALABAR	152.4	5	36.8	28.7	22	173.3	15.9
EKET	50.3	8	40	27.4	18.9	151.4	18
ENUGU	105.1	3	41.7	29.7	21	173.4	18
GOMBE	57.7	7	37.7	28.3	20.7	165.2	16.5
GUSAU	126.9	7	38.5	29.5	22	177.8	16.5
IBADAN	36.8	4	33	27.3	21.4	163.4	14.5
IJEBU	54.4	4	32.9	28	22.3	171.4	14.2
IKEJA	47.7	2	34.5	28.5	22.5	175.1	14.8
ILORIN	57.8	4	35.5	27.6	20.9	162.6	15.6
ISEYIN	110.1	6	32.2	26	20.2	150.7	14.5
JOS	47.6	8	33.9	23.2	15.8	115.1	16.4
KADUNA	141.8	10	39	28.1	19.9	160.2	17.2
KANO	143.1	5	39.6	29.5	21.4	174.5	17.1
KATSINA	40.2	5	40.7	30.2	21.8	180.4	17.4
LAFIA	151.7	7	37.7	29	21.8	174.4	16.3
LOKOJA	37.4	4	38.2	29.7	22.7	182	16.2

MAIDU	79.3	3	41.7	31.3	22.9	190.9	17.5
MAKURDI	128.4	6	37.2	28.9	21.9	174	16.1
MINNA	65	6	38	29.1	21.7	174	16.4
NGURU	161	6	45.8	31.4	20.9	181.6	19.5
OGOJA	65.9	6	39.8	30.1	22.5	183.3	16.9
OSOGBO	15.4	1	31.9	26.6	20.9	157.3	14.2
PHC	87.4	6	37.8	29.3	22.3	178	16.2
POT	70.6	5	42	30.9	22.1	184.8	17.8
SHAKI	35.1	5	33.7	26.9	20.7	157.7	14.9
SOKOTO	33.1	5	40.9	30.6	22.2	183.9	17.3
UMUAHIA	66.5	3	35.8	29.2	23	181.3	15.2
UYO	195.6	4	35.4	28.4	22.2	173	15.3
YELWA	103.5	4	38	30	22.8	183.9	16
YOLA	64	4	37.5	30.4	23.3	188.2	15.7
ZARIA	82.6	8	38.4	28.1	20.2	161.6	16.9
ADO-EKITI	39.1	7	33.5	26.5	20.4	154.5	15
USI-EKITI	39	7	42.5	26.6	16.1	133.2	19.8

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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