

Agrometeorological Bulletin No.22, Dekad 1, AUGUST (1 –10) 2014 ISSN: 2315-9790

SUMMARY

The dekad under review witnessed persistent position of the Inter Tropical Discontinuity (ITD) remaining above the country and widespread rainfall activities across the country. However, below-normal rainfall was recorded over Yola, Gombe, Jos, Ibi, Abeokuta, Eket, Calabar, Port-Harcourt and Owerri. The highest rainfall amount was recorded at Kano with 214.7mm in 5 rain-days, followed by Zaria with 185.8mm in 5 rain-days and Benin with 153.1mm in 6 rain-day. Maximum temperature values are now low with the highest value of 31.6°C over Nguru, while Jos recorded the lowest value of 22.4°C. Harvest of new yam, sweet potatoes, fresh vegetables and corn/maize continued across the country; In the extreme North planting of early maturing Sorghum, earthen and fertilizer application were major activities during the dekad and would continue in the next dekad.

1.0 RAINFALL PARTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

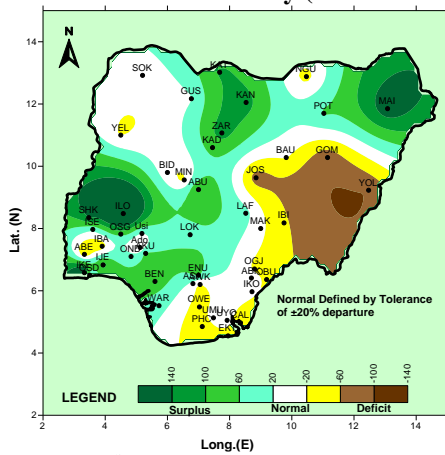


Fig.1: 1ST DEKAD AUGUST RAINFALL ANOMALIES

Rainfall anomaly over the country as shown in *Fig.1* above shows that most parts of the country has recovered from the deficit experienced during the last dekad of July. However, places in and around Yola, Gombe, Jos Owerri, Calabar, Eket and Port-Harcourt are experiencing deficit. Maiduguri, Kano, Ikeja and Oshodi are still experiencing surplus rainfall anomalies as compared to the normal (1981-2010).

Rainfall Amounts

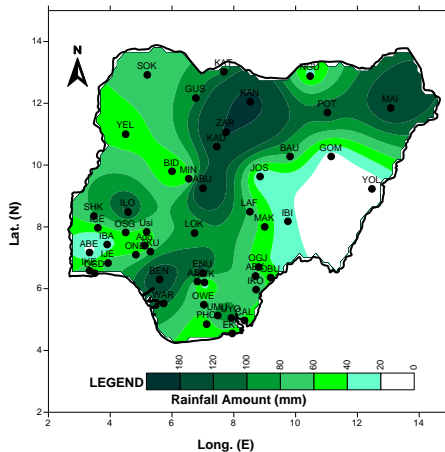
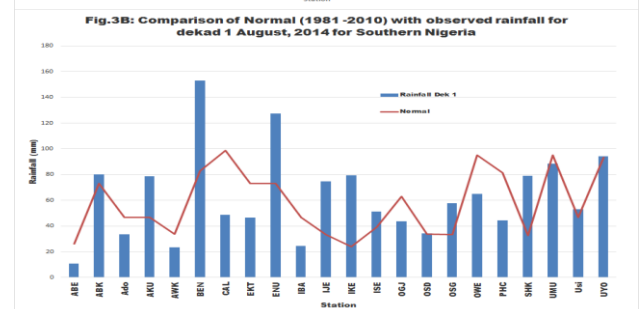
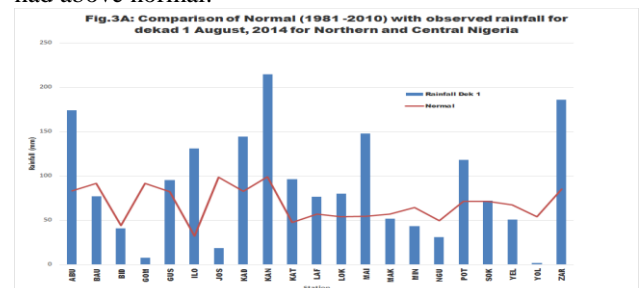


Fig.2 above shows the actual observed rainfall amount measured over the country for the 1st dekad of August. Stations across the country recorded moderate to good rainfall except Yola, Gombe and Abeokuta that had reported less than 20mm. The highest rainfall amount was recorded at Kano with 214.7mm in 5 rain-days, followed by Zaria with 185.8mm in 5 rain-days and Benin with 153.1mm in 6 rain-day. These stations especially Kano and Zaria with high values should monitor their farmlands to avoid possible flooding.

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 1ST DEKAD OF AUGUST

The comparison of the actual rainfall amounts measured and normal during the dekad over the northern and southern parts of the country is shown below in *Fig.3A* and *Fig.3B* respectively. Above-normal condition was experienced over Kano, Maiduguri and Bauchi in the North, while Sokoto, Bida, Abuja, Lokoja and Makurdi recorded below normal rainfall (*Fig.3A*). Most stations in the South in *Fig.3B* recorded normal to below-normal rainfall except Abeokuta, Ikeja, Oshodi and Calabar that had above normal.



1.3 Number of Rain Days.

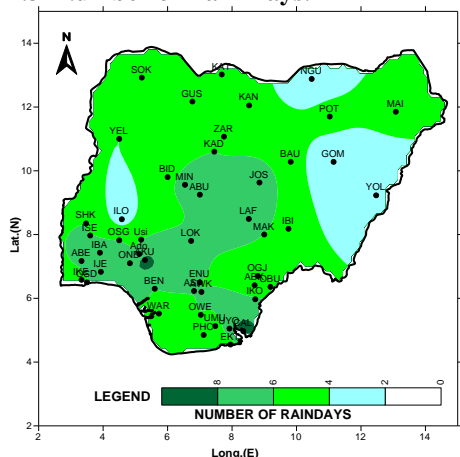


Fig.4: NUMBER OF RAIN DAYS

The Fig. 4 above is the distribution of rainfall across the country and it shows that most stations in the country recorded at least 2 rain-days; Stations in the South recorded as high as 4 to 9 rain-days. The distribution was adequate and good for rain-fed agriculture and it favoured crop growth and development in the country. It is important to note that the Little Dry Season (LDS) is still being expected in the South.

2.0 SOIL MOISTURE CONDITION

Fig. 5 below shows the soil moisture indices across the country in the 1ST dekad of August and it indicates that the country was under normal to surplus soil moisture conditions except the Yola, Gombe, and Ibi that experienced deficit soil moisture.

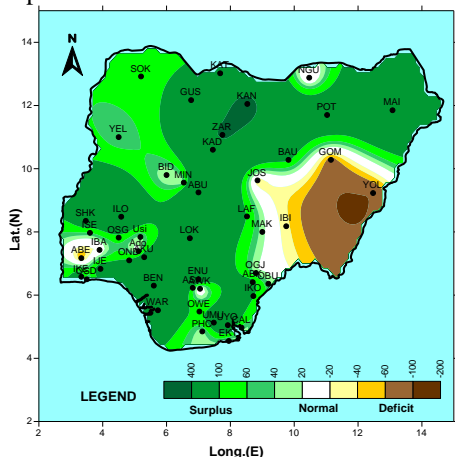


Fig.5: 1ST DEKAD OF AUGUST SOIL MOISTURE INDEX (SMI)

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.

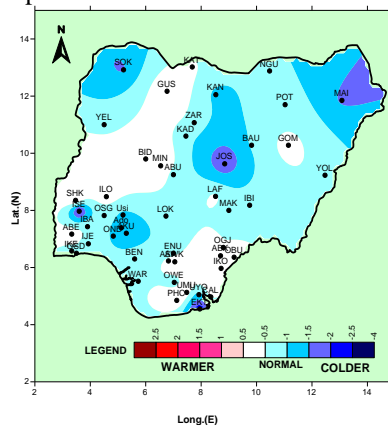


Fig.6: Maximum Temperature Anomaly.

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 Sokoto 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 31.6°C was recorded over Nguru, while Jos recorded the lowest value of 22.4°C

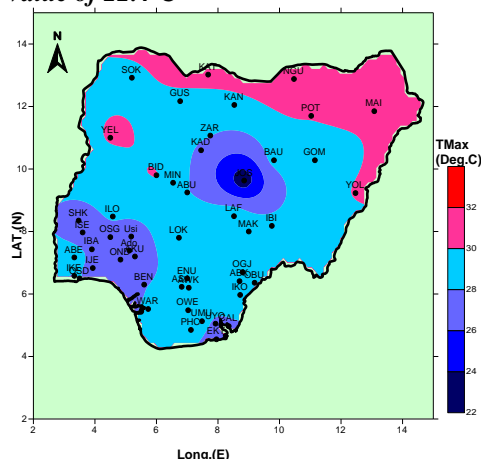


Fig. 7: Mean maximum Temperature Nigeria

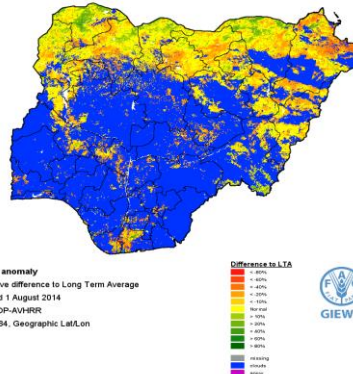


Fig.8: Normalized Difference Vegetative Index (NDVI)

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 2 (11 TO 20), OF AUGUST 2014

4.1 Weather Outlook

The movement of Inter Tropical Discontinuity (ITD) is expected to oscillate between latitudes 21deg. N and 22degN. This extreme position of ITD is expected to place the northern part of the country under cloudy weather conditions with 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 localized rain showers, however, little-dry season (reduced rainfall activity) is expected to set in over the south-west.

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.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOK	10.7	7	33.2	29.1	23.4	182.4	14
ABUJA	174.1	6	36	28.1	21	165.4	15.7
ABAK	80.1	5	35.2	29.4	23.1	182.2	14.9
AKURE	78.6	9	30	26.5	21.6	160.6	13.3
AWKA	23.6	6	35.8	29.5	23.1	183.1	15.2
BAUCHI	76.8	5	35.9	28.8	23	174.2	15.5
BENIN	153.1	6	30.7	27.9	23	174.4	13.2
BIDA	40.9	5	34.8	30.1	23.9	190.1	14.6
CALABAR	48.7	9	32.9	27.7	22	168.6	14.3
EKET	46.4	5	37.3	27	19.2	150.8	16.8
ENUGU	127.3	6	38.6	28.6	20.7	166.6	16.9
GOMBE	7.7	2	36.6	29.2	22.2	177.4	15.7
GUSAU	95.1	5	38.4	29.8	21.9	178.6	16.4
IBADAN	24.7	7	30.8	27.5	22.4	169.4	13.4
IJEBU	74.7	8	29.6	27.4	22.8	170.9	12.8
IKEJA	79.3	4	30	27.8	23	174	12.9
ILORIN	130.7	3	35.6	28.4	21.7	170	15.5
ISEYIN	51.2	6	32.4	26.8	21	159.1	14.4
JOS	18.2	7	30.9	22.4	16	112.1	15
KADUNA	144.2	6	34.2	27.6	20.9	162.9	15.1
KANO	214.7	5	37.5	29.5	22.2	178.5	16
KATSINA	96.3	6	39.7	30.4	22.2	182.7	16.8
LAFIA	76.6	7	38	29.7	22.4	180.6	16.2
LOKOJA	79.7	6	36.4	29.7	23.1	184.3	15.4

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, earthen, fertilizer application and sowing of early maturing Sorghum and will continue. Farmers are advised to use the NiMet's 2014 Seasonal Rainfall Prediction (SRP) for good agricultural planning and increased yields and other relevant publications/weather information like the Drought and Flood Monitor bulletin.

MAIDU	147.8	5	35.3	30.1	23.6	188.5	14.8
MAKURDI	51.7	6	39.8	29.3	21	171.7	17.2
MINNA	43.4	7	35.8	29.2	22.6	179.2	15.3
NGURU	30.8	2	46	31.6	20.6	180.9	19.6
OGOJA	43.6	5	36.2	29.4	22.8	181.1	15.4
OSHODI	34.3	6	30.7	28.1	23.2	176.4	13.2
OSOGBO	57.6	6	31.3	27	21.8	164.1	13.7
OWERRI	65.1	6	34	28.4	22.5	174.5	14.6
PHC	44.4	4	35.5	28.9	22.5	177.1	15.2
POT	117.9	5	38.1	30.1	22.5	183.2	16.3
SHAKI	78.9	6	30	27.1	21	166.3	13.1
SOKOTO	71.9	6	37.9	29.8	22.2	180	16.2
UMUAHIA	88.4	5	35.4	29.1	22.7	179.3	15.1
UYO	94.2	7	29.7	27.5	22.8	171.6	12.9
YELWA	50.6	4	36	30.1	23.7	189	15.1
YOLA	1.5	2	33.7	30.1	24.4	192.5	14
ZARIA	185.8	5	35.2	28.1	20.9	165.2	15.4
ADO-EKITI	33.4	6	31.3	26.6	21.3	159.3	13.9
USI-EKITI	53.2	6	40.6	26.7	17	138.5	18.7

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:

The Director-General/CEO,
 Nigerian Meteorological Agency (NiMet),
 National Weather Forecasting and Climate
 Research Centre, Nnamdi Azikiwe International
 Airport, PMB 615 Garki, Abuja.

E-mail: agrometbulletin@nimet.gov.ng; NiMet WEB SITE: www.nimet.gov.ng