NATIONAL WEATHER FORECASTING AND CLIMATE RESEARCH CENTRE, BILL CLINTON DRIVE, NNAMDI AZIKIWE INTERNATIONAL AIRPORT, P.M.B. 615, GARKI, ABUJA, NIGERIA

Agrometeorological Bulletin No.23, Dekad 2, AUGUST (11 –20) 2015 ISSN: 2315-9790

SUMMARY

The effect of the Little Dry season (LDS) still persist in the southwest as evident in the deficit rainfall anomaly being experienced in the region. The north had normal to surplus rainfall except Potiskum, Ilorin, and Yola that recorded deficit. The Inter-Tropical Discontinuity (ITD) was located between latitude 19 and 20°N. *The highest rainfall amount for the dekad was recorded over Eket with 381.2mm in 10 rain-days, followed by Kaduna with 223.1mm in 7 rain-days and Bauchi with 212.2mm in 4 rain-days.* The maximum temperature anomaly analysis for 2nd dekad of August, 2015 shows normal to warmer than normal maximum temperature over the entire country except Yola, and Eket axis that recorded colder than normal maximum temperature. The soil moisture indices over the southwest shows deficit condition extending to Ilorin.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

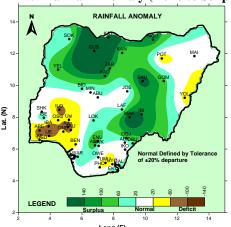


Fig.1: 2ND DEKAD AUGUST, RAINFALL ANOMALIES The rainfall anomaly over the country for the 2nd dekad of August, 2015 as shown in Fig.1 above shows persistent rainfall deficit in the southwest except Iseyin that recorded surplus. The north had normal to surplus rainfall except Ilorin, Potiskum, and Yola that recorded deficit. The persistent deficit experienced over the southwest is as a result of the Little Dry Season (LDS).

Rainfall Amounts

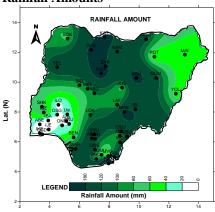


Fig.2: AUGUST 2ND DEKAD, RAINFALL AMOUNT

The actual rainfall amount for the 2nd dekad of August, 2015 as shown in Fig.2 indicates a good spread of rainfall over the country except the

southwest. The highest rainfall amount for the dekad was recorded over Eket with 381.2mm in 10 rain-days, followed by Kaduna with 223.1mm in 7 rain-days and Bauchi with 212.2mm in 4 rain-days.

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE $2^{\rm ND}$ DEKAD OF AUGUST, 2015

The charts below shows the comparison of the actual rainfall amounts recorded against the normal during the dekad is shown in *Fig.3A* and *Fig.3B*. The stations in the north recorded normal to above normal rainfall except Ilorin, Potiskum, and Yola that recorded below normal rainfall. Stations in the south recorded normal to below normal rainfall except Eket Enugu and Ogoja that recorded above normal rainfall.

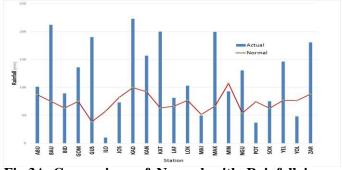


Fig.3A Comparison of Normal with Rainfall in the Northern part of Nigeria

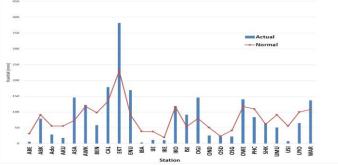


Fig.3A Comparison of Normal with Rainfall in the Southern part of Nigeria

1.3 Number of Rain Days.

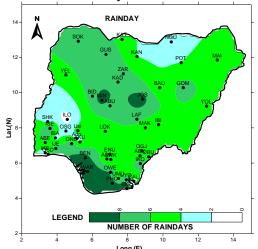


Fig.4: NUMBER OF RAIN DAYS

The rain-days distribution over the country for the 2nd dekad of August, 2015 is shown in *Fig.4* above and it indicates a good rainfall distribution in the over the country except Ilorin with 1 rainday.

2.0 SOIL MOISTURE CONDITION

The Soil moisture condition over the country shows surplus moisture condition. The soil moisture indices over the southwest shows deficit condition extending to Ilorin. The northeast shows normal soil moisture condition as shown in Fig.5 below

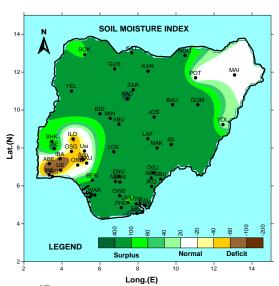


Fig.5: 2ND DEKAD OF AUGUST SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

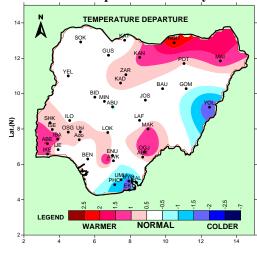


Fig.6: MAXIMUM TEMPERATURE ANOMALY.

The maximum temperature anomaly analysis for 2nd dekad of August, 2015 shows normal to warmer than normal maximum temperature over the entire country except Yola, and Eket axis that recorded colder than normal maximum temperature.

3.2 Maximum Temperature Values.

The actual mean maximum temperature distribution across the country for the 2nd dekad of August 2015, is shown in Fig.7 below. The North recorded maximum temperature of between 30 to 34°C except Kaduna, Lafia Minna, Abuja, Bauchi, Gombe, Lafia and Jos that recorded temperature values below 30°C. The south recorded temperature value ranging from 27 to 30°C except Abeokuta, Enugu, Abakaliki, and Ogoja that recorded temperature values above 30°C. The highest maximum temperature value of 34.9°C was recorded over Nguru while the lowest temperature value of 24.3°C was recorded over Jos

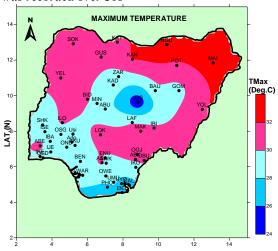


Fig. 7: MEAN MAXIMUM TEMPERATURE

Long.(E)

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 31), OF AUGUST, 2015.

4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 20degN and 22degN. The northern part of the country is expected to be cloudy with thundery activities; the central part is also expected to experience cloudy and thundery conditions. The inland and coastal areas of the South are likely to experience cloudy weather conditions intermitted rainfall. The Southwest may start to experience a recovery from the little dry season to mark the beginning of its second season

The northern and the central states are expected to have mean maximum temperatures to range from 24 ${}^{o}C$ to 33 ${}^{o}C$, while the mean minimum temperatures will range from 17 ${}^{o}C$ to 23 ${}^{o}C$. The mean maximum temperatures over the inland and coastal areas of the South are

expected to be between $27^{o}C$ and $30^{o}C$, while the mean minimum temperatures will range from $18^{o}C$ to $23^{o}C$.

4.2 Agricultural Activity/Outlook

Planting of vegetables and land preparation for dry season farming has commenced in the extreme northern states. Planting of cowpea and sorghum is the predominant activity over the north. Harvest of maize new yam and vegetables will preoccupy most farmers in the south and central states. Weeding and fertilizer application will continue over the Northern states. Harvest in Maize, Potatoes and vegetables, rice transplant will preoccupy farmers in the central states. For more information please refer to the 2015 SRP and consult the nearest ADP or Ministry of Agriculture.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	DD	RADIATION
ABEOK	5.7	6	37.5	30.5	24.0	192.5	15.6
ABAKALIK I	78.4	4	38.1	30.3	23.4	188.2	16
ABUJA	101.4	7	35.9	28.4	21.8	171	15.6
AKURE	17.9	4	27.9	28.2	24.4	182.9	11.8
ASABA	145.8	4	39.5	30.5	23.1	188.1	16.6
AWKA	122.3	4	35.4	29.3	23.7	184.9	14.6
BAUCHI	212.2	4	40.3	29.7	21.3	174.8	17.4
BENIN	58.6	9	30.6	28.1	23.4	177.4	13.1
BIDA	89.2	7	37.6	30.2	23.4	188.1	15.8
CALABAR	178.7	3	30.2	27.3	22.6	169.5	13.1
EKET	381.2	10	38.7	26.3	18.0	141.4	17.8
ENUGU	169	6	35	29.8	24.0	189.1	14.7
GOMBE	135.9	7	38.4	29.3	21.8	175.6	16.5
GUSAU	190.2	8	40.8	30.3	22.0	181.8	17.3
IBADAN	3.4	3	37.6	29.5	22.7	181	16
IJEBU	11.3	7	30.4	28.1	23.5	177.6	13
IKEJA	10.9	3	34.1	29.5	24.0	187.3	14.4
IKOM	118.3	8	34.6	29.3	23.5	184.2	14.6
ILORIN	10.2	1	40.9	30.4	22.2	183	17.4
ISEYIN	91	9	35.8	28.2	21.7	169.7	15.6
JOS	73.1	9	33.2	24.3	17.6	129.5	15.5
KADUNA	223.1	7	41	29.4	20.7	170.1	17.8
KANO	156.8	4	44.7	32.1	22.5	192.9	18.6
KATSINA	199.9	5	41.2	30.6	22.1	183.7	17.4
LAFIA	81.4	7	34.9	29.8	23.8	188.2	14.6
LOKOJA	103	5	38.3	30.9	24.1	194.8	15.9
MAIDUGU	49.8	5	44.3	33.1	24.1	205.9	18.1

KIII	JEISAD						
MAKURDI	199.5	4	40.1	31.3	23.9	195.9	16.6
MINNA	93.1	9	35.4	29.3	23.0	181.5	15.1
NGURU	130.7	3	56.3	34.9	19.6	192.6	23.5
OGOJA	145.3	5	41.3	31.4	23.5	194.3	17.2
ONDO	25.6	7	34.3	28.5	22.7	175.9	14.7
OSHODI	22.3	4	33.2	29.5	24.3	189	13.9
OSOGBO	22.3	3	36.5	28.2	21.4	167.8	15.9
OWERRI	140.1	8	35.1	28.5	22.3	173.7	15.1
PHC	83.5	10	29.7	27.6	23.1	173.5	12.8
POT	36.9	4	42.1	31.4	22.9	191.6	17.6
SHAKI	64.6	3	36	28.2	21.6	169.3	15.7
SOKOTO	75.1	8	42.3	31.3	22.3	187.7	17.8
UMUAHIA	50.8	4	33.9	28.7	23.2	179.4	14.5
UYO	64.4	8	26.8	26.9	23.2	170.3	11.6
WARRI	136.8	10	30.8	28.5	23.9	182.2	13.1
YELWA	146.5	5	39	30.4	22.9	186.4	16.4
YOLA	48.2	5	41.2	31.9	24.1	199.8	17
ZARIA	180.7	7	39.4	29.3	21.4	173.5	17
USI-EKITI	7.9	3	39	28.5	20.8	166.4	17
ADO-EKITI	28.8	5	36.1	28.7	22.2	174.5	15.6

Note:

Rainfall (mm)

PET = Potential Evapotranspiration (mm/decade)

TMAX = Maximum Temperature (°C)

TMIN = Minimum Temperature (°C)

GDD = Growing Degree Day (day)

 $RAD = Radiation (MJ/m^2/day)$

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