

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

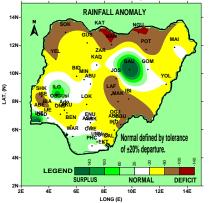
# Agrometeorological Bulletin No.29, Dekad 2, October (11 –20) 2015 ISSN: 2315-9790

### SUMMARY

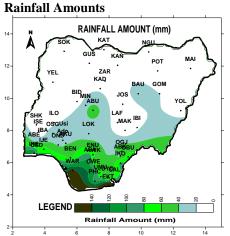
The dekad under review, that is 2<sup>nd</sup> dekad of October 2015 showed a deficit rainfall anomaly in most part of the country except in the extreme coastal areas of the South as well as Oshogbo, Ilorin, Usi-Ekiti and Bauchi with normal to surplus rainfall anomaly. Most part of the North recorded little or no rain with poor distribution indicating the end of rainy season in that part of the country, while the central and southern parts of the country recorded substantial amount with good distribution. Most of the country recorded below normal actual rainfall amount except some few stations. The Inter Tropical Discontinuity (ITD) continues its equatorward movement and fluctuates between latitudes 11degN and 12degN. *The highest rainfall amount for the dekad was recorded over Eket with* 213.5mm in 8 raindays, followed by Warri with 147.7mm in 7 rain-days and Ikeja with 128mm in 7 rain-days. The maximum temperature anomaly analysis shows normal to warmer than normal temperature conditions over the country. The Soil moisture condition over most of the country was deficit except Abuja and the coast with normal to surplus condition. Harvesting of millet and maize is expected to continue in the extreme North as the season is coming to an end, while preparation for the dry season farming is expected to continue. In central and southern parts harvesting of yam and maize and vegetables is expected to commence.

## 1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)



**Fig.1:** 2<sup>ND</sup> **DEKAD OCT, RAINFALL ANOMALIES** *Rainfall anomalies for 2<sup>nd</sup> dekad of October shows that most parts of the country had deficit rainfall anomaly except parts of Bauchi, Ilorin, Oshogbo, Ikeja, Oshodi, Port hacourt and Eket which showed normal to surplus rainfall anomalies. This is illustrated further inFig.1 above.* 



**Fig.2: 2**<sup>ND</sup> **DEKAD OCT, RAINFALL AMOUNT** *Fig.2* above depicts the actual rainfall amount recorded for the 2<sup>nd</sup> dekad of October, 2015. Most part of the North recorded little or no rain, while part of central and South recorded substantial amount of rain. The highest rainfall amount for the dekad was recorded over Eket with 213.5mm in 8 rain-days, followed by Warri with 147.7mm in 7 rain-days and Ikeja with 128mm in 7 rain-days.

#### 1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 2<sup>ND</sup> DEKAD OF OCTOBER, 2015

Fig.3A and Fig.3B below show the comparison of the actual rainfall amount and normal in the Northern and Southern stations respectively. Stations in the North (Fig.3A) recorded below normal rainfall amount except in Bauchi which showed above normal rainfall amount, also in the South (Fig.3B) most stations recorded below normal rainfall except in Ijebu-Ode, Ikeja, Umahia, Owerri, Warri and Eket which recorded above normal.

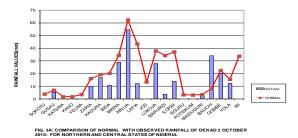


Fig.3A Comparison of Normal with Rainfall in the Northern part of Nigeria

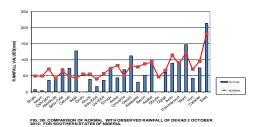


Fig.3B Comparison of Normal with Rainfall in the Southern part of Nigeria

#### 1.3 Number of Rain Days.

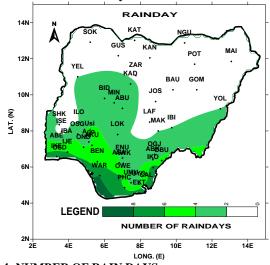


Fig.4: NUMBER OF RAIN DAYS

*Fig.4* above shows the distribution of rainfall in rain-days over the country for the  $2^{nd}$  dekad of October, 2015. The Northern stations had poor distribution of rainfall as most stations recorded less than 2 rain-days. In the South and some central states the distribution was good as most stations recorded at least 2 days of rain.

### 2.0 SOIL MOISTURE CONDITION

The Soil moisture condition over the country is highlighted in Fig.5 below. Most part of the country shows deficit soil moisture conditions except the extreme Southern part of the country and Abuja with neutral to surplus soil moisture conditions.

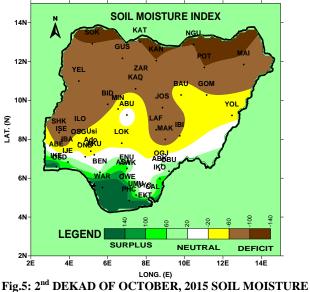


Fig.5: 2<sup>m</sup> DEKAD OF OCTOBER, 2015 SOIL MOISTURI INDEX (SMI)

#### **3.0 MAXIMUM TEMPERATURE TREND**

3.1 Maximum Temperature Anomaly

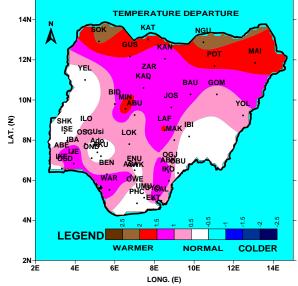
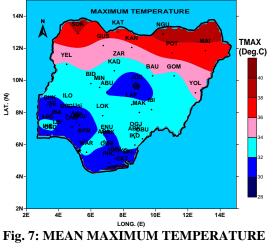


Fig.6: MAXIMUM TEMPERATURE ANOMALY.

The maximum temperature anomaly over the country for the dekad is shown in Fig.6 above and it indicated that the whole country recorded normal to above normal maximum temperature anomaly.

# 3.2 Maximum Temperature Values.

The mean maximum temperature distribution across the country for the 2<sup>nd</sup> dekad of October, 2015 is highlighted in Fig.7 below. The central and Southern parts of the country recorded less than  $33^{\circ}C$  maximum temperature values, while the extreme northern part recorded above  $33^{\circ}C$ . Eket and Jos recorded the lowest maximum temperature values of  $28.4^{\circ}C$  and  $29^{\circ}C$  respectively.



# WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 31), OF OCTOBER, 2015. 4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD) will continue its equatorward movement and is likely to fluctuate between latitudes 11degN and 12degN. The northern part of the country is expected to have sunny and partly cloudy weather conditions; 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 with good rainfall.

The northern and the central states are expected to have mean maximum temperatures to range from  $29^{\circ}C$  to  $38^{\circ}C$ , while the mean minimum temperatures will range from  $18^{\circ}C$  to  $25^{\circ}C$ . The mean maximum temperatures

over the inland and coastal areas of the South are expected to be between  $28^{\circ}C$  and  $32^{\circ}C$ , while the mean minimum temperatures will range from  $18^{\circ}C$  to  $24^{\circ}C$ .

### 4.2 Agricultural Activity/Outlook

As rainy season is coming to an end in the extreme North, harvesting of Millet and Maize is expected to continue. Preparation for dry season farming will continue up to the 3<sup>rd</sup> dekad of October. Harvest of maize, new yam and vegetables will continue in the South and central states. Harvest in Maize, Potatoes and vegetables will continue 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 DEKA	D
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								OR THE	3	1	60	37.6	23.6	226	23.6
STATION	RAINFALL 46.3	RAINDAY 5	PET 45.7	TMAX 32.9	TMIN 24.3	DD 206	RADIATION 18.6	MAIDU	3.7	2	45.8	32.8	24.2	205	18.7
ABEOK		_	43.7				10.0	MAKURDI		2					
ABAKALIK I	30.9	3	46.8	32.5	23.4	199.5	19.3	MINNA	29	4	49.4	32.9	22.5	197	20.4
ABUJA	54.5	4	49.4	31.9	21.1	185.1	20.9	NGURU	0	0	64.5	39.0	22.6	227.8	25.3
AKURE	39.1	6	44.5	30.6	21.9	182.5	18.9	OGOJA	60.9	3	46.5	32.5	23.5	199.8	19.1
ASABA	100	4	46.9	32.6	23.5	200.7	19.2	OSHODI	73.2	7	43.4	32.2	24.4	203.2	17.8
AWKA	43.9	3	42.4	31.7	24.0	198.5	17.5	OSOGBO	35.7	4	45.1	30.8	21.8	183	19.2
BAUCHI	34.1	1	51.8	33.9	22.5	201.7	21.3	OWERRI	112.2	6	43.1	31.2	23.1	191.6	18
BENIN	52	5	44	31.8	23.6	197.2	18.2	РНС	93.7	6	40.1	30.3	23.2	187.5	16.8
BIDA	10.8	3	49.6	33.7	23.7	207	20.2	POT	0	0	57.7	36.9	23.8	223.2	22.8
CALABAR	74.6	7	40.9	30.5	23.2	188.6	17.1	SHAKI	7.3	2	45.3	31.2	22.3	187.4	19.1
EKET	213.5	8	44.5	28.4	18.8	156.2	19.9	UMUAHIA	69.3	3	42.7	31.1	23.3	191.7	17.8
ENUGU	73.5	4	42.1	31.6	23.8	196.9	17.4	UYO	42.6	3	45.2	32.0	23.5	197.7	18.6
GOMBE	20.2	1	48.4	33.4	23.7	205.6	19.8	WARRI	147.7	8	43.2	32.3	24.7	205	17.6
GUSAU	5.4	1	52.4	35.2	24.2	216.9	21	YELWA	3.8	2	45.9	33.8	25.3	215.2	18.4
IBADAN	26.4	4	46.3	32.1	23.1	199.9	19.2	YOLA	12.4	2	XX	34.3	XX	XX	XX
IJEBU	72.3	6	44.3	31.6	23.3	194.5	18.4	ZARIA	10	1	51.9	33.3	21.7	194.9	21.6
IKEJA	128	7	42	30.8	23.2	190.2	17.6	USI-EKITI	36.2	5	50	31.3	20.0	176.3	21.5
ІКОМ	88.7	7	46.6	32.3	23.3	198	19.3	ADO-EKITI	17.2	2	44	30.7	22.2	184.9	18.6
ILORIN	13.8	2	45	32.2	23.5	198.2	18.6								
ISEYIN	4.1	1	43.2	30.6	22.4	184.9	18.3	Note:	、 、						
SOL	0	0	48	29	17.4	152.1	21.6	Rainfall (mm) PET = Potential Evapotranspiration (mm/decade) TMAX = Maximum Temperature ( <sup>o</sup> C) TMIN = Minimum Temperature ( <sup>o</sup> C) GDD = Growing Degree Day (day) RAD = Radiation (MJ/m <sup>2</sup> /day)							
KADUNA	17	3	51.8	33.0	21.3	191.6	21.7								
KANO	0	0	56.2	35.6	22.4	210	22.7								
KATSINA	0	0	56.2	36.7	24.2	224	22.2								
LAFIA	12.2	1	48	33.6	24.2	208.7	19.5								
LOKOJA	28	2	45.1	32.7	24.4	205.6	18.4								

#### 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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