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

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#### **SUMMARY**

The 2<sup>ND</sup> dekad of September, 2015 indicates that the northeast and central states recorded surplus rainfall anomalies while the northwest recorded normal to deficit. The south recorded deficit rainfall except places in and around Enugu, Awka, shaki, Abakaliki and Ekiti that recorded normal to surplus rainfall. A good spread of rainfall was recorded over the country except Abeokuta and its environment. The Inter Tropical Discontinuity (ITD) has commence its equatorward movement and fluctuates between latitudes 15degN and 18degN. *The highest rainfall amount for the dekad was recorded over Asaba with 317.4mm in 6 rain-days, followed by Awka with 248.6mm in 6 rain-days and Lafia with 227mm in 7 rain-days.* The maximum temperature anomaly analysis shows the northeast recorded colder than normal temperature. Warmer than normal temperature was recorded over Abakaliki and Awka in the south. The Soil moisture condition over the extreme North shows deficit soil moisture condition.

#### 1.0 RAINFALL PATTERN

#### 1.1 Rainfall Anomaly (Deficit / Surplus)

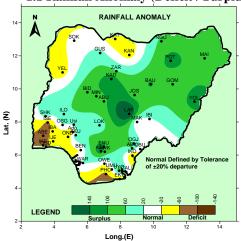
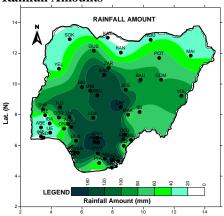


Fig.1: 2<sup>ND</sup> DEKAD SEPT, RAINFALL ANOMALIES
The 2<sup>ND</sup> dekad of September, 2015 indicates that the northeast
and central states recorded surplus rainfall anomalies while
the northwest recorded normal to deficit as shown in Fig.1
above. The south recorded deficit rainfall except places in and
around Enugu, Awka, shaki, Abakaliki and Ekiti that recorded
normal to surplus rainfall.

#### Rainfall Amounts



**Fig.2: 2**<sup>ND</sup> **DEKAD SEPT, RAINFALL AMOUNT**The actual rainfall amount recorded for the 2<sup>nd</sup> dekad of September, 2015 as shown in Fig.2 above indicates a good spread of rainfall over the country except Abeokuta

and its environment. The highest rainfall amount for the dekad was recorded over Asaba with 317.4mm in 6 raindays, followed by Awka with 248.6mm in 6 raindays and Lafia with 227mm in 7 raindays.

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

The charts below shows the comparison of the actual rainfall amounts recorded against the Climatic normal during the dekad is shown in *Fig.3A and Fig.3B* below. The stations in the north recorded normal to above normal rainfall except Katsina, Kano, Sokoto and Yelwa that recorded below normal rainfall. Stations in the south recorded normal rainfall to above normal rainfall except Abeokuta, Oshogbo Ibadan Ikom, Isheyin and environ that recorded below normal.

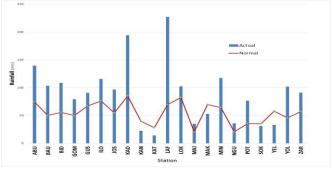


Fig.3A Comparison of Normal with Rainfall in the Northern part of Nigeria

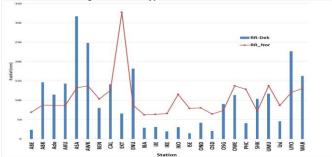


Fig.3A Comparison of Normal with Rainfall in the Southern part of Nigeria

#### 1.3 Number of Rain Days.

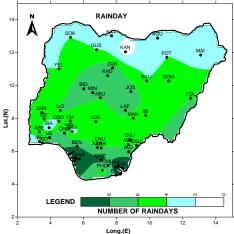


Fig.4: NUMBER OF RAIN DAYS

The rain-days distribution over the country for the  $2^{nd}$  dekad of September, 2015 is shown in *Fig.4* above and it indicates a good rainfall distribution in the over the country with every station recording at least 2 rain day except Kano that had only 1 rainday.

#### 2.0 SOIL MOISTURE CONDITION

The Soil moisture condition over the extreme North shows deficit soil moisture condition. The soil moisture indices over the central states shows surplus soil moisture. The southwest shows deficit condition over Abeokuta, Ibadan, Ikeja and Ijebu-Ode. The southeast and the south-south shows surplus soil moisture condition as shown in Fig.5 below

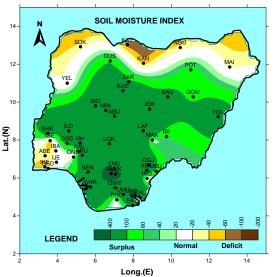


Fig.5: 2<sup>ND</sup> DEKAD OF SEPTEMBER, 2015 SOIL MOISTURE INDEX (SMI)

#### 3.0 MAXIMUM TEMPERATURE TREND

#### 3.1 Maximum Temperature Anomaly

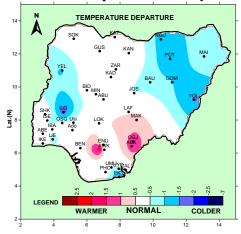


Fig.6: MAXIMUM TEMPERATURE ANOMALY.

The maximum temperature anomaly analysis for 2<sup>nd</sup> dekad of September, 2015 shows that over the northeast recorded colder than normal temperature. The northwest recorded normal temperature except Yelwa that recorded colder than normal temperature. Warmer than normal temperature was recorded over Abakaliki and Awka in the south. However, Eket and Ijebu recorded below normal temperature

## 3.2 Maximum Temperature Values.

Fig 7 below shows the actual mean maximum temperature distribution across the country for the 2<sup>nd</sup> dekad of September, 2015. The extreme North recorded maximum temperature of between 32 and 33°C. Kaduna, Minna, Abuja, Gombe and Jos recorded temperature values below 30°C. The south recorded temperature value ranging from 27 to 32°C. Nguru recorded the highest maximum temperature value of 33.4°C while the lowest temperature was recorded over Jos with 25.5°C.

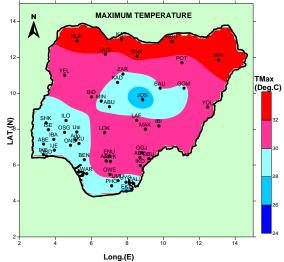


Fig. 7: MEAN MAXIMUM TEMPERATURE

# WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 3 (21 TO 30), OF SEPTEMBER, 2015.

#### 4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD) has commence its equatorward movement and is likely to fluctuate between latitudes 14degN and 16degN. 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 will 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 25  $^{o}C$  to 34 $^{o}C$ , 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  $31^{o}C$ , while the mean minimum temperatures will range from  $18^{o}C$  to  $23^{o}C$ .

#### 4.2 Agricultural Activity/Outlook

Preparation for dry season farming has commenced with broadcast of vegetable seeds in the nursery in the north. Transplanting of some vegetables continued. Harvest of maize new yam and vegetables will preoccupy most farmers in the south and central states planting of sorghum and cowpea will continue over the Northern states. Harvest in Maize, Potatoes and vegetables 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	23.9	5	37.6	30.0	23.9	189.4	15.8
ABAKALIK I	146.8	5	44	31.5	23.2	193.4	18.3
ABUJA	139.7	6	42.7	29.6	21.1	173.7	18.4
AKURE	143.4	3	38.7	29.0	22.2	175.7	16.6
ASABA	317.4	6	44.6	31.6	23.2	194.1	18.6
AWKA	248.6	6	40.3	30.3	23.2	187.6	17
BAUCHI	103.6	4	45.9	30.1	20.1	171	19.9
BENIN	80.2	8	37.6	29.6	23.4	185.1	15.9
BIDA	108.6	7	41.8	30.7	22.9	187.7	17.6
CALABAR	141.7	10	37.6	28.9	22.6	177.5	16.1
EKET	65.8	8	42	27.1	18.3	146.7	19.1
ENUGU	182.3	5	40.1	30.1	23.1	185.7	16.9
GOMBE	79.3	5	41.6	29.8	21.8	178	17.8
GUSAU	90.7	4	46.3	32.0	22.5	192.2	19.4
IBADAN	28.9	2	36.8	28.8	22.6	177	15.8
IJEBU	31.3	8	32.7	28.3	23.4	178.4	14
IKEJA	19.7	3	34	29.1	24.0	185.2	14.4
IKOM	30.6	7	42.2	31.2	23.7	194.3	17.6
ILORIN	115.6	6	40.9	29.6	21.9	177.7	17.5
ISEYIN	14.7	5	36.2	28.1	22.0	170.6	15.7
JOS	96.5	7	38.9	25.5	17.3	134.2	18.1
KADUNA	194.2	8	43.5	29.6	20.6	171.3	18.9
KANO	22.4	1	47.8	32.7	22.7	196.9	19.8
KATSINA	14.2	3	47.9	32.5	22.4	194.3	19.9
LAFIA	227	7	44	31.1	22.6	188.8	18.5
LOKOJA	102.2	4	41.3	31.3	24.0	196.6	17.1

LIDE	JEKAD						
MAIDU	35.3	3	47.1	33.1	23.7	203.7	19.2
MAKURDI	53	5	42.8	31.6	23.8	196.8	17.7
MINNA	117.5	7	40.3	29.6	22.1	178.5	17.2
NGURU	35.9	4	54.9	33.4	19.7	185.4	23.2
ONDO	41.8	7	36.8	28.9	22.8	178.2	15.7
OSHODI	20.8	4	33.3	29.3	24.4	188.6	14
OSOGBO	90.4	4	38.8	28.6	21.7	171.4	16.8
OWERRI	113.8	9	41.3	30.1	22.6	183.5	17.5
PHC	40.8	5	37.4	29.6	23.6	186.1	15.8
POT	76.6	4	42.4	31.2	22.8	190	17.7
SHAKI	103.7	5	39	28.9	21.9	173.9	16.8
sokoto	31.2	4	46.6	32.7	23.3	199.9	19.2
UMUAHIA	117	7	38.6	29.9	23.4	186.8	16.3
UYO	227	9	36	29.0	23.2	180.5	15.3
WARRI	162.9	10	34.9	29.4	24.1	187.6	14.7
YELWA	33	4	39.1	30.6	23.4	190.1	16.3
YOLA	102	6	39.8	30.7	23.7	191.9	16.6
ZARIA	91.3	7	43.2	29.7	20.9	173.3	18.7
USI-EKITI	46	5	42.2	29.0	20.7	168.6	18.4
ADO-EKITI	114.8	6	38.4	28.7	21.9	173	16.6

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:

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