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 1st dekad of October, 2015 shows that the northern states recorded normal to above normal rainfall anomalies except the northwest states of Sokoto and Zamfara recorded deficit rainfall anomalies. The southwestern states recorded normal to above normal rainfall except Shaki, Isheyin and Akure that had deficit. The southeastern states recorded normal to below normal anomalies. A good spread of rainfall was recorded over the country except the extreme northern states that are beginning to record less raindays which is an indication of rainfall cessation. The Inter Tropical Discontinuity (ITD) continues its equatorward movement and fluctuates between latitudes 13degN and 14degN. *The highest rainfall amount for the dekad was recorded over Oshogbo with 135.5mm in 9 rain-days, followed by Benin with 131.9mm in 6 rain-days and Ikeja with 128.7mm in 7 rain-days.* The maximum temperature anomaly analysis shows shows colder than normal temperature conditions over most part of the country except Ijebu-Ode, and Abakiliki that shows warmer than warmer conditions. The Soil moisture condition over the extreme North shows deficit except Gombe that show surplus condition. The central states shows normal to surplus soil moisture. Preparation for dry season farming and transplanting of tomatoes has commenced in the northern and central states.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

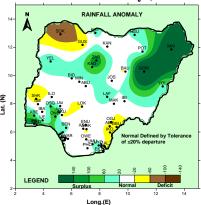


Fig.1: 1st DEKAD OCT, RAINFALL ANOMALIES

The rainfall anomalies for the 1st dekad of October, 2015 shows that the northern states recorded normal to above normal rainfall anomalies except the northwest states of Sokoto and Zamfara recorded deficit rainfall anomalies. The southwestern states recorded normal to above normal rainfall except Shaki, Isheyin and Akure that had deficit. The southeastern states recorded normal to below normal anomalies as shown in Fig.1 above. The south recorded normal to surplus rainfall.

Rainfall Amounts

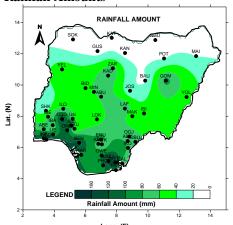


Fig.2: 1ST DEKAD OCT, RAINFALL AMOUNT

The actual rainfall amount recorded for the 1st dekad of October, 2015 as shown in Fig.2 above indicates a good spread of rainfall over the country except the extreme northern states that the raindays was below 2. The highest rainfall amount for the dekad was recorded over Oshogbo with 135.5mm in 9 rain-days, followed by Benin with 131.9mm in 6 rain-days and Ikeja with 128.7mm in 7 rain-days.

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 1st DEKAD OF OCTOBER, 2015

The charts below shows the comparison of the actual rainfall amounts recorded against the Climatic normal during the 1st dekad is shown in *Fig.3A and Fig.3B* below. The stations in the north recorded normal to above normal rainfall except Bauchi and Sokoto that recorded below normal rainfall. Stations in the south recorded normal rainfall except Akure and Awka that recorded below normal.

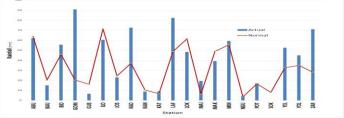


Fig.3A Comparison of Normal with Rainfall in the Northern part of Nigeria

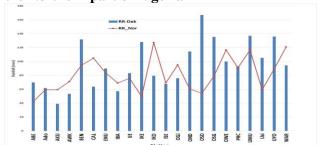


Fig.3A Comparison of Normal with Rainfall in the Southern part of Nigeria

1.3 Number of Rain Days.

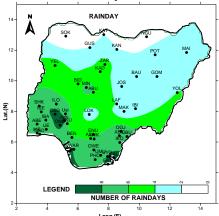


Fig.4: NUMBER OF RAIN DAYS

The rain-days distribution over the country for the 1st dekad of October, 2015 is shown in *Fig.4* above and it indicates a good rainfall distribution in the south with every station recording at least 2 rain day. However, the stations in the north are beginning to record less raindays. This is an indication of probable end of season

2.0 SOIL MOISTURE CONDITION

The Soil moisture condition over the extreme North shows deficit except Gombe that show surplus condition. The central states shows normal to surplus soil moisture. The south shows surplus condition as shown in Fig.5 below

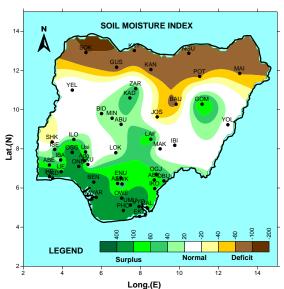


Fig.5: 1ST DEKAD OF SEPTEMBER, 2015 SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

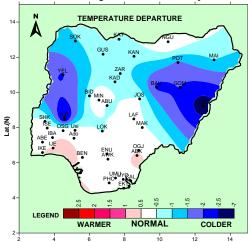


Fig.6: MAXIMUM TEMPERATURE ANOMALY.

The maximum temperature anomaly analysis for 1st dekad of October, 2015 shows colder than normal temperature conditions over most part of the country except Ijebu-Ode, and Abakiliki that shows warmer than warmer conditions.

3.2 Maximum Temperature Values.

The mean maximum temperature distribution across the country for the 1st dekad of October, 2015. The extreme North recorded maximum temperature of between 32 and 35°C. 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 37.2°C while the lowest temperature was recorded over Jos with 27.1°C.

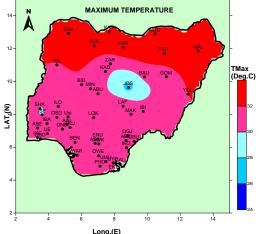


Fig. 7: MEAN MAXIMUM TEMPERATURE

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 2 (11 TO 20), OF OCTOBER, 2015.

4.1 Weather Outlook

The Inter Tropical Discontinuity (ITD) has commence its equatorward movement and is likely to fluctuate between latitudes 12degN and 13degN. The northern part of the country is expected to have few clouds with little 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 with good rainfall.

The northern and the central states are expected to have mean maximum temperatures to range from $27 \, ^{o}C$ to $38^{o}C$, while the mean minimum temperatures will range from $17^{o}C$ to $25^{o}C$. The mean maximum temperatures over the inland and coastal areas of the South are

expected to be between $27^{o}C$ and $32^{o}C$, while the mean minimum temperatures will range from $18^{o}C$ to $24^{o}C$.

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	70	6	43.3	31.7	24.0	198.5	17.9
ABAKALIK I	NA	NA	44.9	31.9	23.5	196.9	18.6
ABUJA	62.1	6	45.8	30.7	21.3	179.7	19.6
AKURE	39.1	6	44.7	30.6	21.9	182.5	19
AWKA	53.4	6	44	31.3	23.1	192.2	18.4
BAUCHI	15.1	2	47.2	30.6	20.2	173.5	20.4
BENIN	131.9	6	44	31.2	23.0	191.2	18.4
BIDA	55.6	4	44.8	32.0	23.5	197.5	18.5
CALABAR	63.7	9	39.1	29.6	22.8	181.7	16.6
ENUGU	89.8	6	42.6	31.0	23.2	190.8	17.8
GOMBE	90.8	3	45.2	30.7	21.6	181.2	19.3
GUSAU	6.7	2	44.9	33.1	24.6	208.7	18.2
IBADAN	57.3	6	44.8	30.9	22.1	184.9	19
IJEBU	83.2	6	42.7	30.9	23.1	189.9	17.9
IKEJA	128	7	42.2	30.8	23.3	190.2	17.7
IKOM	79.5	7	45	32.0	23.6	198.1	18.6
ILORIN	60.5	7	45.3	31.0	22.0	184.8	19.2
ISEYIN	67.5	8	43.2	29.9	21.5	176.8	18.6
JOS	23	3	41.9	27.1	18.1	146.3	19.1
KADUNA	72.6	4	46.1	30.6	20.9	177.8	19.7
KANO	8.9	2	51.3	33.7	22.8	202.3	21
KATSINA	9	2	50	34.3	24.0	211.2	20.2
LAFIA	82.3	4	45.7	31.9	22.8	193.6	19
LOKOJA	48.3	3	41.6	31.5	24.2	198.6	17.2
MAIDU	19.4	3	51.6	34.9	24.2	215.1	20.7
MAKURDI	39.2	2	43.4	31.6	23.7	196.7	18
MARUKUI	37.2		43.4	31.0	23./	170./	10

RTHE	DEKAD						
MINNA	59.3	7	45.3	31.4	22.5	189.6	19
NGURU	4.7	1	62.9	37.2	20.9	210.4	25.5
OGOJA	75.9	8	45	32.0	23.6	198.3	186
ONDO	114.5	9	44.7	31.1	22.5	188.2	18.8
OSHODI	167	8	43.2	31.3	23.4	193.4	18
OSOGBO	135.5	9	45.3	30.3	21.1	177.2	19.4
OWERRI	99.9	6	45.8	31.2	22.2	186.9	19.3
PHC	93.2	7	41.7	30.8	23.4	190.9	17.4
POT	17.3	3	49.1	33.7	23.8	207.4	19.9
SHAKI	24.8	7	43.4	29.9	21.4	176.4	18.6
sokoto	0	0	50.9	35.0	24.6	218.4	20.3
UMUAHIA	137	7	42.7	30.9	23.2	190.8	17.9
UYO	136	8	41.6	30.4	23.0	187	17.5
WARRI	94.4	8	42.3	31.4	23.7	195.5	17.5
YELWA	52.5	5	44	31.8	23.5	196.3	18.2
YOLA	45	4	43.3	32.0	24.2	200.9	17.8
ZARIA	71	5	45.1	30.6	21.3	179.4	19.2
USI-EKITI	105.2	9	47.8	30.2	19.7	169.6	20.8
ADO-EKITI	61.9	7	43.8	30.3	21.8	180.2	18.7

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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