

Agrometeorological Bulletin No.10, Dekad 1, April (1 –10) 2015

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SUMMARY

The dekad under review that is 1st dekad of April, 2015 had witnessed a declined in rainfall when compare to 3rd dekad of March. The central and southern parts of the country had deficit rainfall anomalies except in some few parts while the northern part had normal. ITD continue to oscillate between latitude 10.5^oN to 11.5^oN. Soil moisture condition in the country was deficit except the extreme coastal part which had neutral to surplus soil moisture conditions. The highest rainfall amount was recorded over Eket with 116mm in 6 rain-days, followed by Benin with 64.8mm in 2 rain-days and Abeokuta with 46mm in 4 rain-days. Maximum temperature anomalies were normal to colder than normal in most parts of the country except the extreme northern part and Makurdi area which had warmer than normal maximum temperature anomalies. Weeding and fertilizer application are expected to continue in the Southern part of the country while preparation for the new rainy season is expected to continue in the central part of the country.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

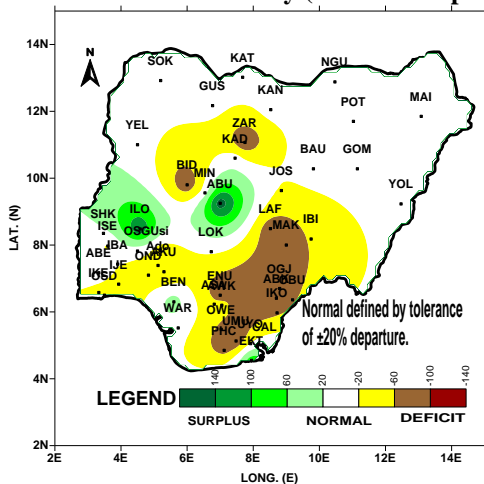
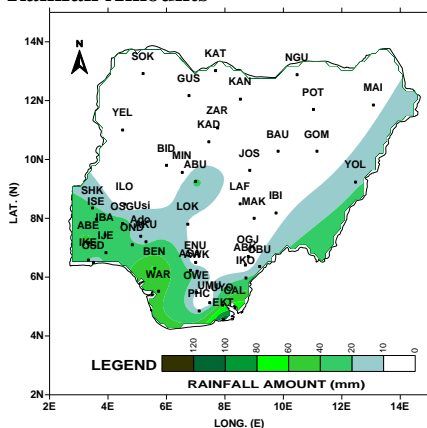


Fig.1: 1ST DEKAD APRIL, RAINFALL ANOMALIES

Fig.1 above shows the rainfall anomaly over the country and it indicated most of the central and Southern parts of the country had deficit rainfall anomalies except parts of Ilorin, Iseyin, Benin and Abuja which had normal to surplus rainfall anomalies. The extreme northern part continued to have normal rainfall anomalies.

Rainfall Amounts



Actual rainfall amount is depicted in Fig.2 above and it shows rainfall has declined when compared to 3rd dekad

of March in the country. The highest rainfall amount was recorded over Eket with 116mm in 6 rain-days, followed by Benin with 64.8mm in 2 rain-days and Abeokuta with 46mm in 4 rain-days.

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

Fig.3A and Fig.3B shows the comparison of the actual rainfall amounts measured and normal/long term averages during the dekad over the northern and southern parts of the country. Most stations in the country had below normal rainfall amount except Abeokuta, Benin, Eket, Abuja and Yola which had above normal rainfall amount.

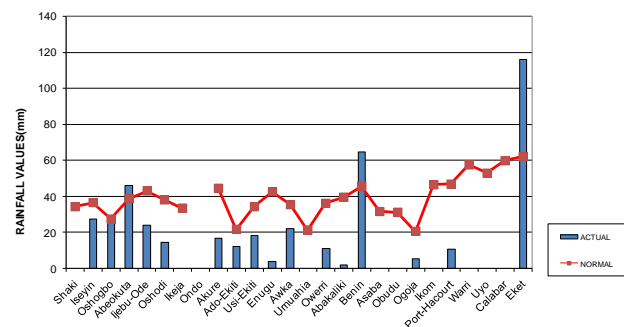


FIG. 3B: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 1 APRIL 2015: FOR SOUTHERN STATES OF NIGERIA.

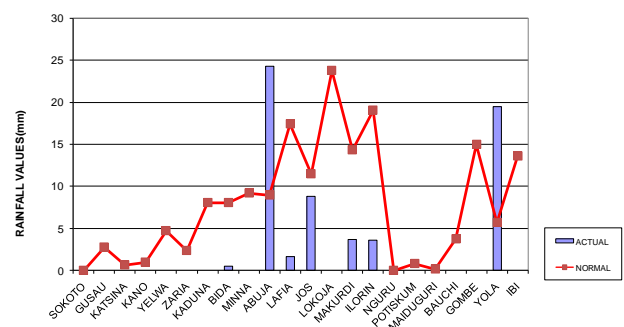


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 1 APRIL 2015: FOR NORTHERN AND CENTRAL STATES OF NIGERIA.

1.3 Number of Rain Days.

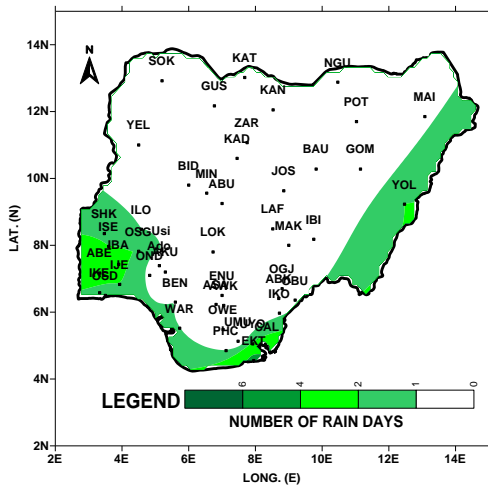


Fig.4: NUMBER OF RAIN DAYS

Fig.4 above shows the rain-days distribution over the country and it indicated that rainfall distribution in the country varies from 1 to 2 rain-days in the stations that recorded rain. Eket has the highest number of rain-days with 6 days.

2.0 SOIL MOISTURE CONDITION

Fig.5 below highlights the soil moisture indices across the country and it showed that the most part of the country had deficit soil moisture conditions except the extreme southern parts which showed neutral to surplus soil moisture conditions.

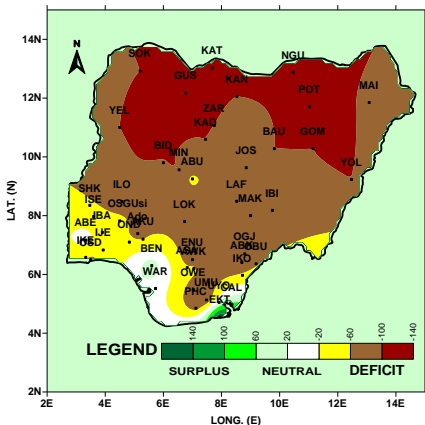


Fig.5: 1ST DEKAD OF APRIL SOIL MOISTURE INDEX (SMI)

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

Maximum temperatures anomalies over the country is highlighted in Fig.6 below and it indicated that most parts of the country had normal to colder than normal maximum temperature anomalies, except the extreme

northern part of the country Makurdi area which had warmer than normal maximum temperature anomalies

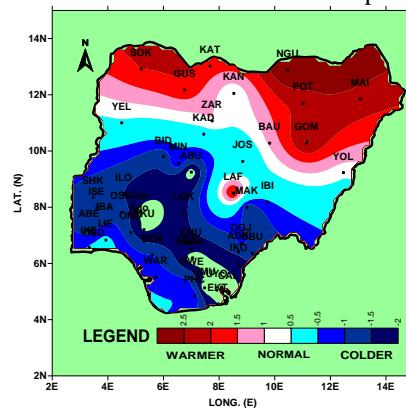


Fig.6: Maximum Temperature Anomaly.

3.2 Maximum Temperature Values.

Fig.7 below depicted the actual mean maximum temperature distribution across the country is shown in and indicates that most parts of the country had maximum temperatures above 34°C except Jos and most parts of the South which recorded 30°C to 32°C maximum temperature values.

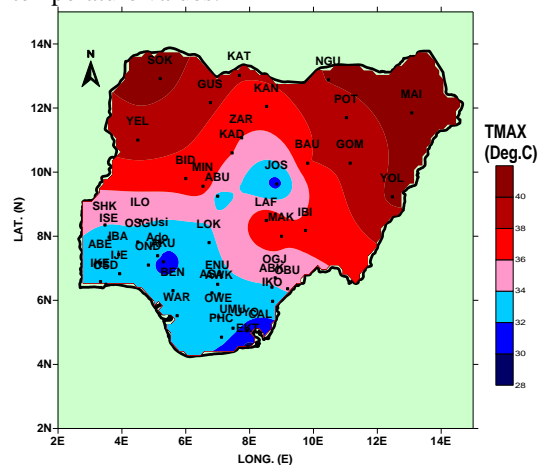


Fig. 7: Mean maximum Temperature

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

4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 10.5degN and 11.5degN. The northern part of the country is expected to be sunny and partly cloudy; the central part is expected to be partly cloudy to cloudy conditions. The inland and coastal areas of the South are likely to experience cloudy weather conditions and rain.

The northern and the central states are expected to have mean maximum temperatures of the range 32°C - 38°C, while the mean minimum temperatures will lie between 22°C and 24°C. The mean maximum temperatures over

the inland and coastal areas of the South are expected to be between 30°C and 34 °C, while the mean minimum temperatures will range from 20°C to 22°C.

Weeding and fertilizer application are expected to continue in the Southern part of the country while preparation for the new rainy season is expected to continue in the central part of the country.

4.2 Agricultural Activity/Outlook

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOKUTA	46	4	48.5	34.3	25.1	217.3	19.4
ABUJA	24.3	1	51.5	34.5	23.6	210.6	20.8
ABAK	2	1	50	34.6	24.8	216.9	20
AKURE	16.9	1	44.7	32.0	23.7	198.4	18.5
AWKA	22.1	1	45.6	33.0	24.6	207.7	18.5
BAUCHI	0	0	59.7	37.9	24.4	231.4	23.3
BENIN	64.8	2	44.9	33.0	24.9	209.1	18.2
BIDA	0.5	1	53.1	36.8	26.2	235.2	20.6
CALABAR	---	---	---	---	---	---	---
EKET	116	6	42.3	29.5	21.4	174.5	18.2
ENUGU	3.9	1	46.2	33.5	25.0	212.3	18.6
GOMBE	0	0	58.2	38.4	25.9	241.3	22.3
GUSAU	0	0	58.3	38.5	25.6	240.6	22.3
IJEBU	24.1	3	48	33.9	24.7	212.6	19.3
ILORIN	3.6	2	52.3	34.3	23.1	207.2	21.3
ISEYIN	27.3	3	48.5	33.3	23.6	204.6	19.8
JOS	8.8	1	50.3	31	19.1	170.8	21.8
KADUNA	0	0	56.1	36.1	23.4	217.4	22.4
KANO	0	0	58.1	36.9	23.3	221.1	22.9
KATSINA	0	0	59.8	38.2	24.2	232.1	23.2
LAFIA	1.6	1	55.9	38.0	26.5	242.5	21.4
LOKOJA	---	---	---	---	---	---	---
MAKURDI	3.7	1	54.9	36.1	24.3	221.9	21.7
MINNA	0	0	55.6	37.5	26.0	237.7	21.4
NGURU	0	0	XX	40.1	XX	XX	XX
OGOJA	5.4	1	53.4	35.3	24.1	216.9	21.3
OSHODI	14.4	2	46	33.9	25.6	217.6	18.4
OSOGBO	27.3	3	51.1	33.4	22.4	199.1	21.1
OWERRI	11.1	1	48.2	33.3	23.8	205.6	19.7
PHC	10.8	2	47.7	32.7	23.2	199.6	19.7
POT	0	0	61	39.3	25.6	244.2	23.3
SHAKI	---	---	---	---	---	---	---
-SOKOTO	0	0	66.6	40.6	24.1	243.6	25.4
UMUAHIA	0	0	46.5	32.6	23.7	201.4	19.1
YELWA	0	0	56.4	39.3	28.0	256.2	21.1
YOLA	19.5	3	XX	40.4	XX	XX	XX
ZARIA	0	0	56	36.0	23.5	217.5	22.3
ADO-EKITI	12.1	1	47.7	32.6	23.1	198.2	19.7
USI-EKITI	18.4	2	55.9	32.4	17.9	171.4	24.3

Note:
 Rainfall (mm)
 PET = Potential Evapotranspiration (mm/day)
 TMAX = Maximum Temperature (°C)
 TMIN = Minimum Temperature (°C)
 GDD = Growing Degree Day (day)
 RAD = Radiation (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:

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