NIGERIAN METEOROLOGICAL AGENCY

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

Agrometeorological Bulletin No.12, Dekad 3, April (21 –30) 2015

ISSN: 2315-9790

SUMMARY

Rainfall has picked up in the 3rd dekad of April when compared to 2nd dekad of April. Most parts of the country had deficit rainfall anomalies except the extreme northern part and parts of the South which had normal and surplus rainfall anomalies. ITD continue to oscillate between latitude 11.5^{0}N to 12.0^{0}N. 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 Port-hacourt with 95.8mm in 2 rain-days, followed by Oshodi with 73.2mm in 3 rain-days and Ikeja with 50.8mm in 3 rain-days. Maximum temperature anomalies were warmer than normal in most parts of the country except in the extreme North and parts of the South which had normal to colder than normal maximum temperature anomalies. Preparation for the new rainy season is expected to continue in the northern part of the country, while planting of cereal and tuber crops is expected to continue in the central states of the country. In the South weeding and fertilizer application is expected to continue.

1.0 RAINFALL PATTERN

1.1 Rainfall Anomaly (Deficit / Surplus)

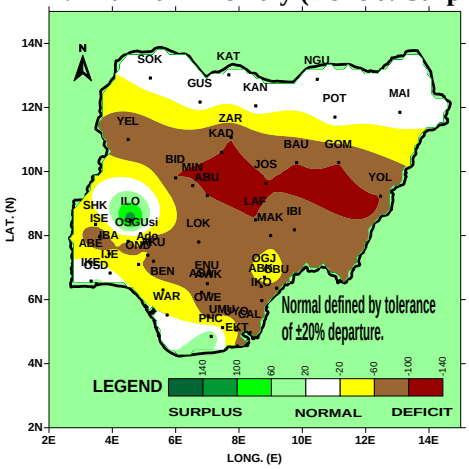
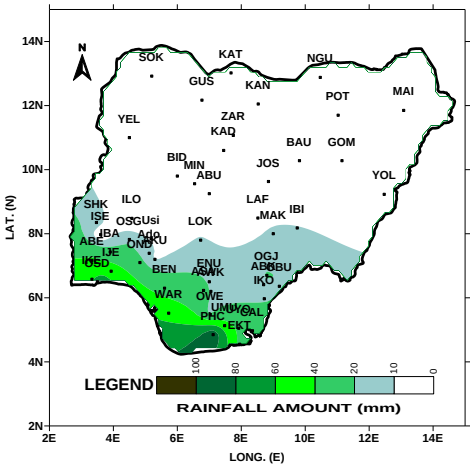


Fig.1: 3RD DEKAD APRIL, RAINFALL ANOMALIES

Fig.1 above shows the rainfall anomaly over the country is it indicated that most parts of the country had deficit rainfall anomalies except the extreme northern part of the country and parts of the South which had normal and surplus rainfall anomalies.

Rainfall Amounts



Actual rainfall amount is depicted in ***Fig.2*** above and it shows that rainfall has picked up when compared to 2nd dekad of April in the country. ***The highest rainfall amount was recorded over Port-hacourt with 95.8mm in 2 rain-days, followed by Oshodi with 73.2mm in 3 rain-days and Ikeja with 50.8mm in 3 rain-days.***

1.2 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE 3RD DEKAD OF APRIL

The comparison of the actual rainfall amounts measured and normal/long term averages during the dekad is shown in ***Fig.3A and Fig.3B*** below over the northern and southern parts of the country. All the stations in the country recorded below normal rainfall amount except Port- hacourt, Oshodi and Ikeja which had above normal rainfall amount.

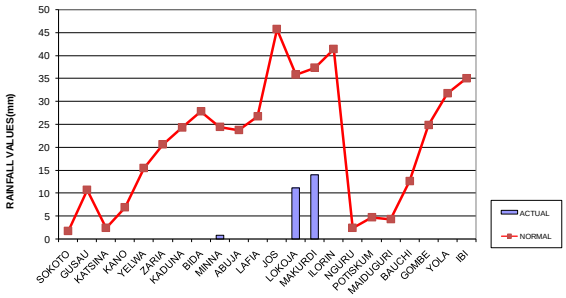


FIG. 3A: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 APRIL 2015: FOR NORTHERN AND CENTRAL STATES OF NIGERIA.

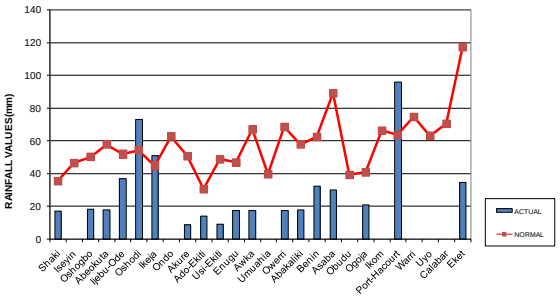


FIG. 3B: COMPARISON OF NORMAL WITH OBSERVED RAINFALL OF DEKAD 3 APRIL 2015: FOR SOUTHERN STATES OF NIGERIA.

1.3 Number of Rain Days.

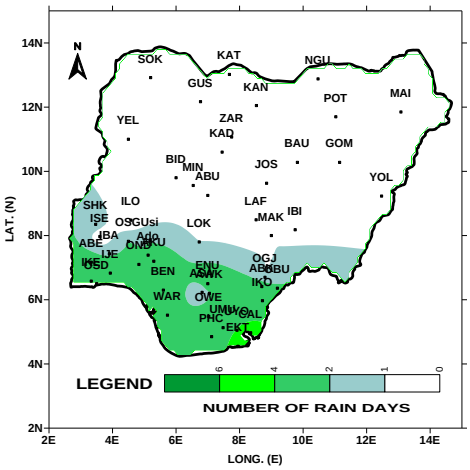


Fig.4: NUMBER OF RAIN DAYS

The rain-days distribution over the country is shown in ***Fig.4*** above and it indicated that rainfall distribution in the country varies from 1 to 3 rain-days in the stations that recorded rain.

2.0 SOIL MOISTURE CONDITION

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

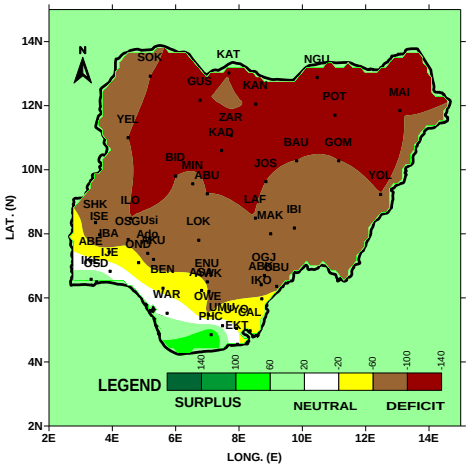


Fig.5: 3RD DEKAD OF APRIL SOIL MOISTURE INDEX (SMI

3.0 MAXIMUM TEMPERATURE TREND

3.1 Maximum Temperature Anomaly

Maximum temperatures anomalies over the country is shown in ***Fig.6*** below and it indicated that most parts of the country had warmer than normal maximum temperature anomalies except parts of extreme north and some parts of South which had normal to colder than normal maximum temperature anomalies.

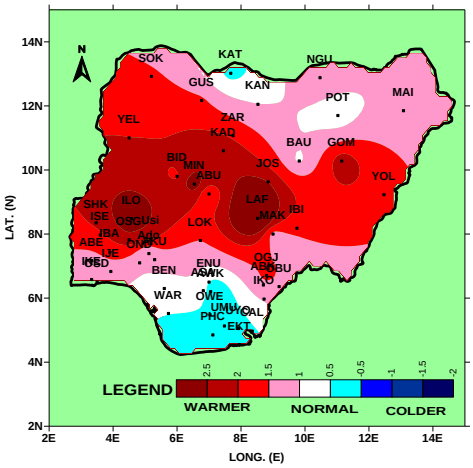


Fig.6: Maximum Temperature Anomaly.

3.2 Maximum Temperature Values.

Fig.7 below shows the actual mean maximum temperature distribution across the country and it depicted that most parts of the country had maximum temperatures above 34^0C except Jos and most parts of the South-south which recorded 30^0C *to* 33^0C maximum temperature values.

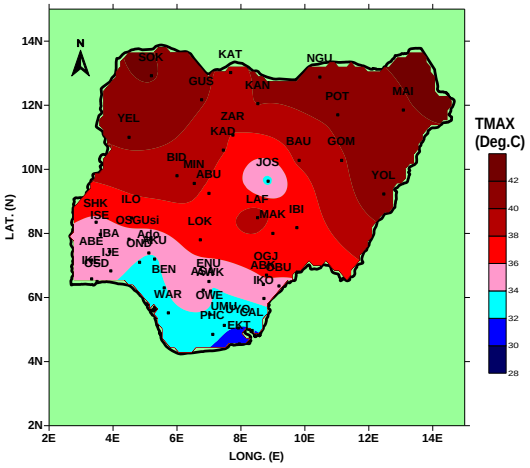


Fig. 7: Mean maximum Temperature

WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF APRIL, 2015

4.1 Weather Outlook

The position of Inter Tropical Discontinuity (ITD) is likely to fluctuate between latitudes 11.5degN and 12.0degN. 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 with localized thunderstorms. The inland and coastal areas of the South are likely to experience cloudy weather conditions with localized rain.

The northern and the central states are expected to have mean maximum temperatures of the range 32 ^{O}C - 40^0C, while the mean minimum temperatures will be between

$22^{O}C$ and $26^{O}C$. The mean maximum temperatures over the inland and coastal areas of the South are expected to be between $30^{O}C$ and $34\ ^{O}C$, while the mean minimum temperatures will range from $20^{O}C$ to $22^{O}C$.

4.2 Agricultural Activity/Outlook

Preparation for the new rainy season is expected to continue in the northern part of the country, while planting of cereal crops and tubers such as maize and yam is expected to continue in the central parts of the country. In the South weeding and fertilizer application is expected to continue.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD
ABEOKUTA	44	3	50.8	35.5	24.7	220.8	20.2
ABUJA	0	0	52.5	36.9	25.2	230.2	20.6
ABAK	17.7	3	49.9	35.6	25.3	224.5	19.7
AKURE	8.7	3	49.7	33.8	22.9	203.2	20.3
ASABA	30	1	52.8	35.5	23.9	217	21.1
AWKA	17.5	2	47.7	33.9	24.3	210.9	19.1
BAUCHI	0	0	62	38.6	22.6	226	24.4
BENIN	32.2	3	46.4	33.9	24.7	213.3	18.7
BIDA	0	0	56.4	39.0	26.9	249.4	21.4
CALABAR							
EKET	34.8	5	42.3	30.4	21.9	181.1	18
ENUGU	17.5	3	47.7	34.3	24.7	215	19.1
GOMBE	0	0	61.1	39.8	25.3	245.1	23.3
GUSAU	0	0	63.2	40.2	24.3	242.9	24.2
IJEBU	36.8	3	46.6	33.9	24.5	211.9	18.8
IKEJA	50.8	3	XX	XX	24.4	XX	XX
ILORIN	0	0	55.9	37.0	24.1	225.4	22
ISEYIN	0	0	50.9	35.1	24.0	215.6	20.4
JOS	0	0	55.9	33.3	17.8	175.5	24.1
KADUNA	0	0	63	38.2	21.1	216.8	25.2
KANO	0	0	66.2	40.1	21.8	229.4	25.9
KATSINA	0	0	64.8	39.4	21.5	224.7	25.6
LAFIA	0	0	63.9	39.5	24.9	241.8	24.5
LOKOJA	11.1	1	51.8	37.2	26.6	238.9	19.9
MAIDUGURI	0	0	69.7	41.9	22.4	241.5	26.8
MAKURDI	14	1	54.8	36.8	24.6	226.8	21.5
MINNA	0.8	1	60	39.5	25.5	245	22.9
NGURU	0	0	XX	41.4	XX	XX	XX
OGOJA	20.9	1	53.2	36.2	24.6	224.1	21
OSHODI	73.2	3	46.2	34.3	25.2	217.5	18.5
OSOGBO	18.1	2	52.5	35.1	23.2	211.4	21.2
OWERRI	17.4	3	49.3	33.8	23.2	205.1	20.1
PHC	95.8	2	46.7	32.7	23.0	198.5	19.3
POT	0	0	67.3	40.3	21.2	227.1	26.5
SHAKI	17.2	2	53.1	35.6	23.6	215.8	21.3
-SOKOTO	0	0	67	42.2	25.1	256.5	25.1
UMUAHIA							
YELWA	0	0	61.7	40.6	25.9	252.4	23.3
YOLA	0	0	XX	41.5	XX	XX	XX
ZARIA	0	0	60	37.9	22.8	223.7	23.7
ADO-EKITI	14	2	49.6	34.1	23.4	207.3	20.2
USI-EKITI	9	2	55.5	35.2	21.6	204.1	22.7

Note:
Rainfall (mm)
PET = Potential Evapotranspiration (mm/day)
TMAX = Maximum Temperature (^{O}C)
TMIN = Minimum Temperature (^{O}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***