

# NIGERIAN METEOROLOGICAL AGENCY



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

# Agrometeorological Bulletin No.3, Dekad 3, January (21–31) 2014 ISSN: 2315-9790

## **SUMMARY**

Rains have started falling in the southern part of the country during the 3rd dekad of January, while the northern part continued to remain dry with low temperatures between  $(28^{\circ}C \text{ and } 34^{\circ}C)$ . The country also remained under deficit soil moisture conditions except in the coastal areas. A number of stations in the southern part of the country have reported rains, However, significant rainfall amounts were recorded in Eket (87.5mm), Benin (64mm) and Ikeja(63.1mm). Preparation for the rainy season is expected to start in the South while harvesting of vegetables from the dry season farming is expected to commence in the northern part of the country , therefore farmers are advised to adhere to 2014 NIMET's seasonal rainfall prediction for more information when it is released.

# 1.0 RAINFALL PARTERN

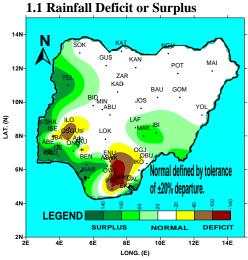
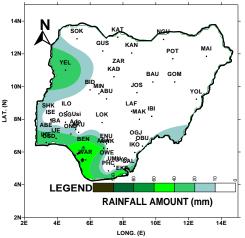


Fig.1: 3RD DEKAD RAINFALL ANOMALIES

Rainfall anomaly over the country as shown in *Fig.1* above indicates that the northern and central parts of the country continued to remain normal, except parts of Yelwa, Makurdi and Lafia which showed surplus rainfall anomalies. The southern parts also had surplus anomalies especially in the south west while the eastern part had deficit rainfall anomalies.





*Fig.2* above shows the observed actual rainfall amount measured over the country for the dekad. It indicates that most parts of the coastal stations and some stations in the central states recorded rains. The highest rainfall was recorded Eket, Benin and Ikeja with 87.5mm, 64mm and 63.1mm in 3 days respectively.

#### 1.3 COMPARISON OF NORMAL WITH ACTUAL RAINFALL FOR THE DEKAD

Fig. 3 below shows the comparison of the actual rainfall amount with normal rainfall values during the dekad in the southern part of the country. It reveals that some stations like Eket, Calabar, Asaba, Benin, Ado-Ekiti, Ikeja, Oshodi, Abeokuta and Shaki had rainfall above normal, while others that recorded rainfall had below normal.

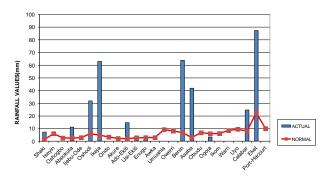


FIG. 3: COMPARISON OF NORMAL WITH OBSERVED RAINFALLOF DEKAD 3 JANUARY 2014: FOR SOUTHERN STATES OF NIGERIA.

#### 1.4 Number of Rain Days

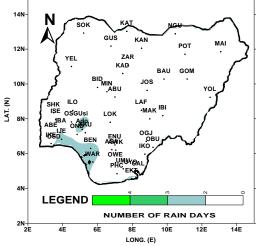


Fig.4: NUMBER OF RAIN DAYS

*Fig. 4* shows the distribution of rainfall across the country and the map indicates that the stations in the South that recorded rains none had more than three rain-days, that is 1 to 3 rain-days.

### 2.0 SOIL MOISTURE CONDITION

The soil moisture indices across the country are shown in *Fig.* **5** below. The country was under deficit soil moisture condition except part of the South (along the coast) that showed neutral to surplus soil moisture condition.

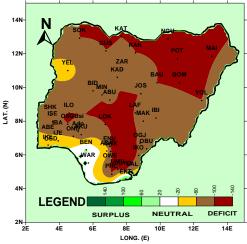


Fig. 5: 3RD DEKAD OF JANUARY SOIL MOISTURE INDEX (SMI)

#### **3.0 MAXIMUM TEMPERATURE TREND 3.1 Maximum Temperature Anomaly**

*Fig 6* below shows the maximum temperature anomaly across the country and indicates that some parts of the northern states were colder than normal maximum temperatures anomalies except Sokoto axis which had normal maximum temperature anomalies. The central and southern states had warmer than normal maximum temperature anomalies. Areas in and around Eket showed colder than normal temperature anomalies.

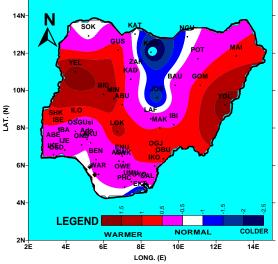


Fig.6: Maximum Temperature Anomaly.

#### **3.2 Maximum Temperature Values**

The actual mean maximum temperature distribution across the country as shown in **Fig** 7 below indicates that some parts of the extreme North recorded  $34^{\theta}C$  and below, except Yelwa, Gusau and Yola areas that had above  $36^{\theta}C$ . The central and southern states recorded maximum temperatures ranging from 30 to  $36^{\theta}C$ . Kano recorded the lowest value of 28.7°C.

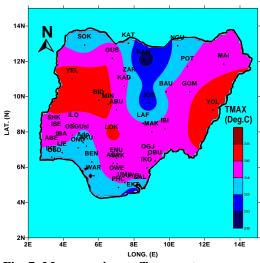


Fig. 7: Mean maximum Temperature

### WEATHER/AGRICULTURAL OUTLOOK FOR DEKAD 1 (1 TO 10), OF FEBRUARY 2014 4.1 Weather Outlook

ITD's position is expected to oscillate between latitude 7deg. N & 9degN. The northern and central parts of the

country are expected to have hazy weather conditions. The inland areas are expected to be sunny and hazy, while the coastal areas are will have mist and fog in the morning and cloudy and slightly hazy in the afternoon with localized rains.

The expected mean maximum temperature in the North will range from  $34^{o}C$  to  $41^{o}C$ , while the mean minimum temperature will be between  $15^{o}C$  and  $23^{o}C$ . In the inland and coastal areas, the mean maximum temperature is expected to be between  $32^{o}C$  and  $35^{o}C$ , while the mean minimum temperature will range from  $22^{o}C$  to  $25^{o}C$ .

## 4.2 Agricultural Activity/Outlook

Preparation for rainy season farming is expected to start in the southern part of the country in the 1st dekad of February. Harvesting of vegetables is expected to commence in the North. Farmers are advised to adhere to the 2014 NIMET seasonal rainfall prediction for more information immediately it is released.

TABLE OF AGROMETEOROLOGICAL DATA FOR THE DERAD															
STATION	RAINFALL	RAINDAY	PET	TMAX	TMIN	GDD	RAD	LOKOJA	0	0	65.3	36.6	22.1	235	23.9
ABEOK	11.3	3	53.6	35.1	25.6	245.9	19.3	MAIDU							
ABUJA	1.1	1	63.6	35.2	20.2	216.6	24	MAKURDI	4	1	59.7	35.2	22.4	228.9	22
AKURE	0	0	52	33.2	23.6	224.2	19.3	MINNA	0	0	63.9	36.7	22.7	238.9	23.2
ASABA	41.9	1	58.4	35.1	23.4	233.8	21.4	NGURU							
AWKA	0	0	56.9	35.1	24.2	237.9	20.7	OGOJA	3.3	1	59.2	35.6	23.7	238.4	21.5
BAUCHI	0	0	66.3	34.3	16.7	192.2	26	ONDO							
BENIN	64	3	50.4	33.4	24.7	231.4	18.5	OSHODI	31.9	2	47.6	33.3	25.6	235.8	17.4
BIDA								OSOGBO	0	0	56.2	34.3	23.1	227.7	20.8
CALABAR	24.8	1	52.8	33.3	23.6	225.2	19.6	OWERRI	0	0	58.4	34.4	22.4	224.5	21.7
EKET	87.5	3	43	30.1	23.2	205.2	16.5	PHC	0	0	56.4	33.5	22.1	217.9	21.2
ENUGU	1.2	1	58.6	34.4	22.3	224.3	21.8	POT	0	0	67.3	34.2	15.3	184.3	26.8
GOMBE	0	0	64.6	34.6	18.6	204.3	24.8	SHAKI	7.3	1	61.8	35.6	22.1	229.7	22.8
GUSAU	0	0	67.8	36.0	18.5	211.8	25.7	SOKOTO	0	0	59.6	32.6	18.0	190	23.5
IBADAN	17.5	2	53.3	34.2	24.4	234.1	19.5	UMUAHIA	0	0	55.8	34.2	23.5	229.2	20.6
IJEBU								UYO	0	0	52.3	33.2	23.6	224.2	19.4
IKEJA	63.1	3	48.6	33.1	25.0	231.6	17.8	WARRI							
IKOM								YELWA	40	2	71.7	37.6	18.7	221.8	26.8
ILORIN	0	0	57.8	35.0	23.5	234.3	21.1	YOLA	0	0	71.6	37.6	19.4	225.3	26.6
ISEYIN	0	0	57.5	34.6	23.1	229.1	21.2	ZARIA	8.4	1	63.7	33.9	17.6	195.1	24.9
JOS	0	0	60.3	30.3	13.8	154.5	25.2	OBUDU							
KADUNA	0	0	65	34.5	17.9	200.6	25.1	IBI							
KANO	0	0	61.9	28.7	8.3	115.4	27.8	ADO- EKITI	14.6	3	55.5	33.4	22.3	218.1	20.8
KATSINA	0	0	63.4	32.9	15.9	180.3	25.3	USI-EKITI	3.3	3	64.2	33.3	16.8	187.4	25.4
LAFIA	16	1	62.6	36.4	22.9	237.8	22.8	CALARMA	0.0	5	04.2	00.0	10.0	107.4	20.4

 TABLE OF AGROMETEOROLOGICAL DATA FOR THE DEKAD

NIGERIAN METEOROLOGICAL AGENCY (NIMET)AGROMETEOROLOGICAL BULLETIN NO. 3, DEKAD 3 JANUARY (21-31) 2014Page 3

Note: Rainfall (mm) PET(mm/day) TMAX (<sup>O</sup>C) TMIN (<sup>O</sup>C) GDD (day) RAD (MJ/m<sup>2</sup>/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