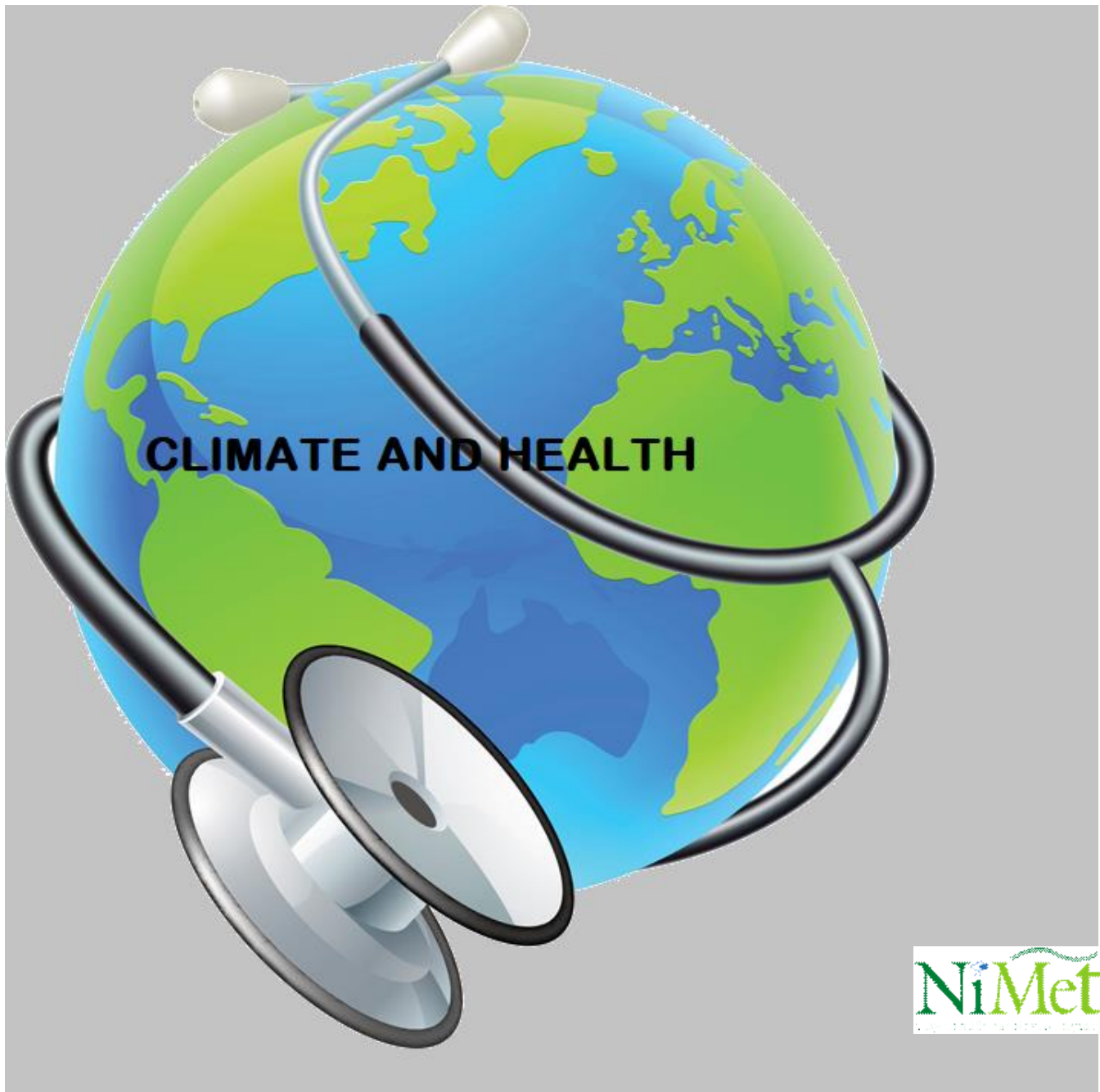


# The NIGERIAN METEOROLOGICAL AGENCY



## NiMet CLIMATE AND HEALTH BULLETIN

JANUARY 2018 Edition

ISSUE: Vol 1(1) 2018



The Climate and Health Bulletin is published by Nigerian Meteorological Agency (NiMet). This publication is expected to enlighten the public on environmental health issues with strong weather and climate connections.

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# **NIGERIAN METEOROLOGICAL AGENCY**

## **CLIMATE AND HEALTH BULLETIN**



**ISSUE: Vol 1(1) 2018**

### **PREFACE**

The Nigerian Meteorological Agency (NiMet) has produced this Climate and Health Bulletin (CHB) to enlighten the public on environmental health issues with strong weather and climate connections. This is in line with the mandate of the Agency to provide weather services in biometeorology for public health information and planning.

The CHB is published on monthly bases dependig on the health challenge in focus. This edition contains esential information on monitoring atmospheric conditions favouring meningities disease outbreak in the country for January 2018.

The bulletin is a very important source of information to health professionals engaged in the monitoring of sensitive public health diseases with a strong weather and climate influence. This monitoring of atmospheric parameters over a given area is used to assess the likelihood of outbreaks of these diseases. The information and projections contained therein will assist health policy makers to plan early warning and reduce the negative outcomes with good lead time . Early warning will assist health authorities in developing vaccination strategies that aim to prevent meningitis outbreaks.

## 1.0 OBSERVED CLIMATIC CONDITIONS JANUARY, 2018

During January 2018, daily meteorological conditions such as relative humidity, surface dust concentration and wind were collated for the whole country. This edition of the Climate Health Bulletin focus on cero-spinal meningitis disease outbreak and development during the period. Scientific knowledge of meningitis incidence in sub-Saharan Africa has shown that low relative humidity below 40%, dry north easterly wind and surface dust conditions favour meningitis disease outbreak and development. These conditions are presented below.

### 1.1 Relative Humidity

Low Relative humidity below 20% prevailed over Yobe, Gombe, eastern Bauchi and Jigawa, western Borno and Gusau axis. Elsewhere over the northern to the central part of the country relative humidity values ranging between 40% - 60% was observed. The rest of the country had values above 60% (fig 1).

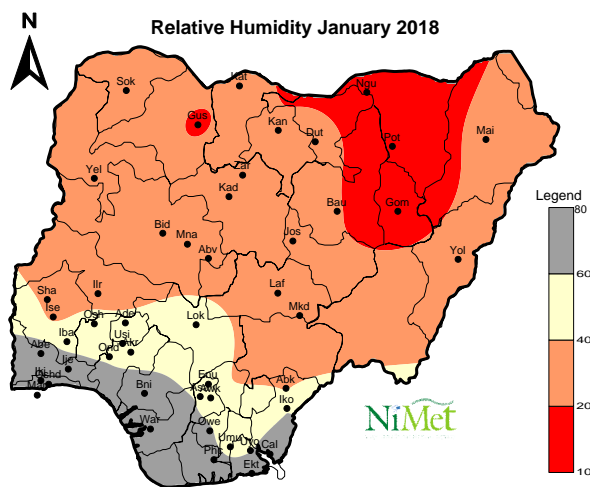


Fig 1: Relative Humidity January, 2018

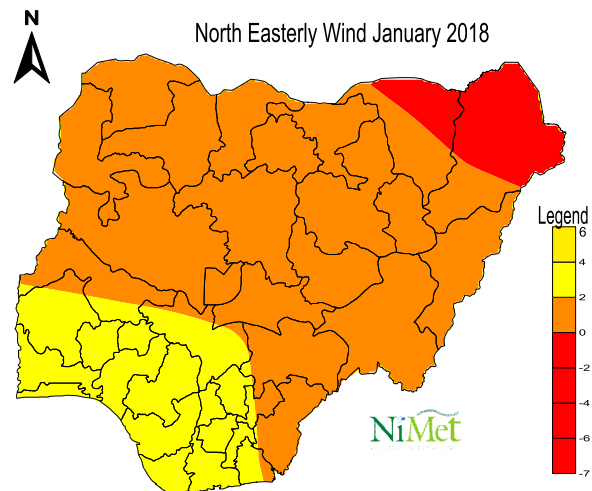
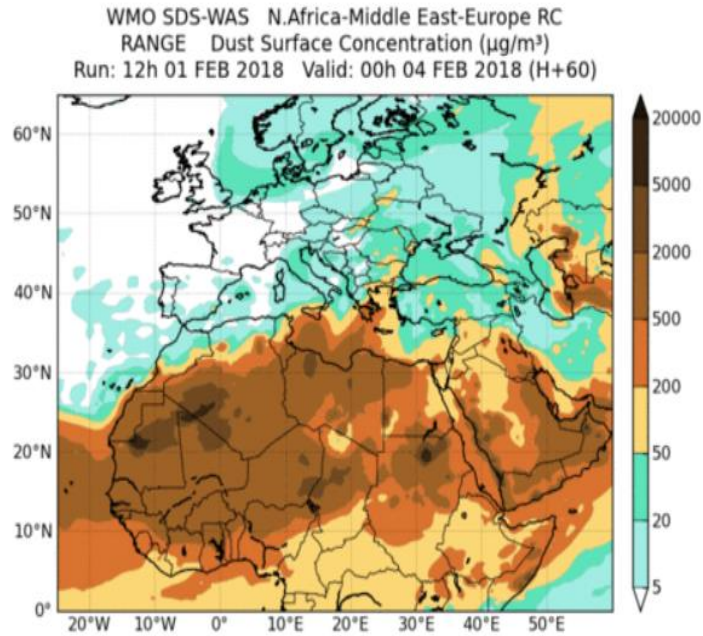


Fig 2: Northeasterly wind January, 2018

### 1.2 Meridional (North Easterly) Wind

Negative meridional winds (north easterlies) were dominant over the northern parts parts of Borno and Yobe States (Fig 2).



**Figure 3: Dust Concentration ( $\mu\text{g}/\text{m}^3$ ) February, 2018**  
 (Source WMO SDS-WAS: BSC-DREAM8b)

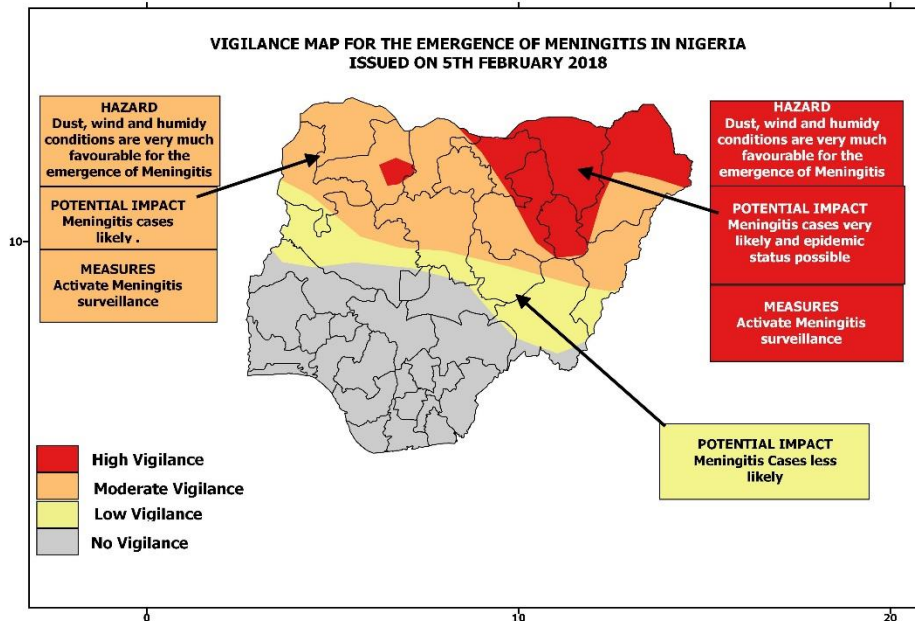
### 1.3 Dust Concentration

Significant surface dust concentration (between 500 - 2000  $\mu\text{g}/\text{m}^3$ ) was observed over parts of the north especially northwest. While over some parts of north central to the southwestern part of the country the surface dust concentration is 200 and 500  $\mu\text{g}/\text{m}^3$  (Fig 3). Elsewhere over southern Taraba and Benue it was between 50-200  $\mu\text{g}/\text{m}^3$



The meningitis belt stretches from Ethiopia and Sudan in East Africa to Mali, Senegal and Guinea in the west Fig. 4

**Figure 4: African Meningitis Belt February 2018**  
 (Source: WHO)



**Fig 5: Vigilance Map for Emergence of Meningitis in Nigeria**

Issued on the Feb 3, 2018

#### 1.4 VIGILANCE

- i. Climate conditions are favorable for high vigilance for meningitis cases over Yobe, Gombe and parts of Borno, Jigawa, Bauchi and Zamfara States.
- ii. Moderate vigilance is required over Kano, Katsina, Sokoto, parts of Adamawa, Borno, Bauchi, Kaduna, Zamfara, Sokoto and Kebbi States.
- iii. Low vigilance is required over Taraba, southern parts of Adamawa and Kaduna and also some parts of Plateau and Niger States.
- iv. No vigilance is required over the remaining parts of the country.

#### 1.5 OUTLOOK

Current warm conditions over the country are expected during February to May. Heat related ailments such as cero-spinal meningitis, measles and heat rashes are expected during the hot season.

Your comments and suggestions are most welcome to enable us enrich the bulletin.

Kindly send your feedback to [climateandhealthnimet@gmail.com](mailto:climateandhealthnimet@gmail.com)

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