

# CLIMATE & HEALTH BULLETIN: MENINGITIS VIGILANCE ZONES

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N°: 06 from 31<sup>st</sup> Jan to 6<sup>th</sup> Feb 2018

**Climate conditions are favorable for a high vigilance for meningitis cases over eastern Burkina Faso, southern Niger, northern Nigeria and Cameroon, and western Chad.**

**Moderate vigilance is needed over northern Senegal, Côte d'Ivoire, Benin and Ghana, eastern Mali, much of Burkina Faso, central Nigeria and Cameroon, and south central Chad.**

**Low vigilance is required over the remaining parts of the meningitis belt.**

**Due to the southward movement of the ITD climate conditions will be more favorable for meningitis vigilance detection.**

## OBSERVED CLIMATE SITUATION: 31<sup>st</sup> Jan to 6<sup>th</sup> Feb 2018

- Low humidity (below 20%) was observed over much of the meningitis belt in particular over southern Mauritania, eastern Senegal and Burkina Faso, much of Mali, Niger, Nigeria, Cameroon and Chad, and northern CAR. Relative humidity between 20 and 40% prevailed over the rest of the meningitis belt (Figure 2).
- Moderate concentrations ( $50$  to  $200\mu\text{g}/\text{m}^3$ ) prevailed over much of Mauritania, Sudan, South Sudan and Senegal, southern parts of Gulf of Guinea countries and northern Niger. The concentrations of  $200$  to  $500\mu\text{g}/\text{m}^3$  were observed over southern Mauritania, central Mali and Niger, western Burkina Faso, northern Côte d'Ivoire, Ghana and Togo. The highest concentrations of above  $500$  to  $2000\mu\text{g}/\text{m}^3$  prevailed over eastern Mali and Burkina Faso, southern Niger, northern Benin and Nigeria, and western Chad. (Figure 3).
- Negative meridian winds were dominant over much of the meningitis belt in particular over Senegal, Gambia, Mauritania, Mali, Niger, Nigeria, Cameroon, Chad and Sudan. (Figure 4).
- The ITD is located over North Atlantic, southern parts of Gulf of Guinea countries and CAR. (See figure 2 No. 03 Decadal bulletin 2018).

**Given these climate conditions, a high vigilance is required for meningitis cases over eastern Burkina Faso, southern Niger, northern Nigeria and Cameroon, and western Chad.**

**Moderate vigilance is needed over northern Senegal, Côte d'Ivoire, Benin and Ghana, eastern Mali, much of Burkina Faso, central Nigeria and Cameroon, and south central Chad.**

**Low vigilance is required over the remaining parts of the meningitis belt.**



Figure 1: African Meningitis Belt

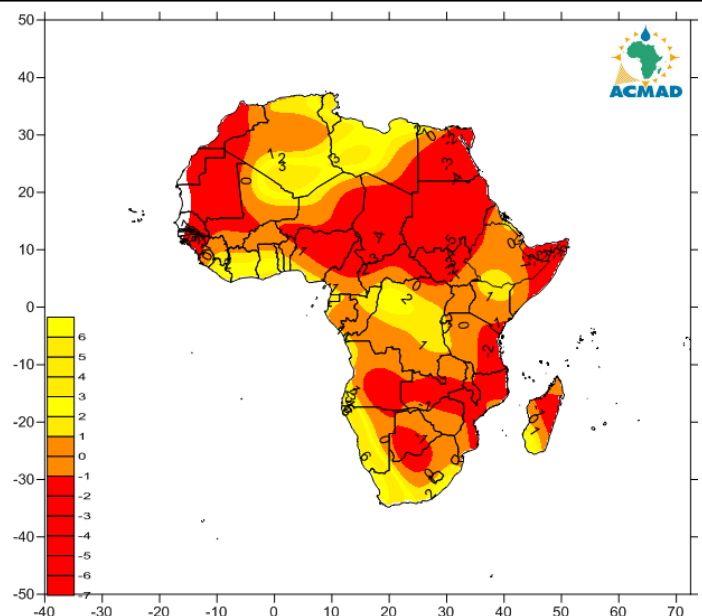
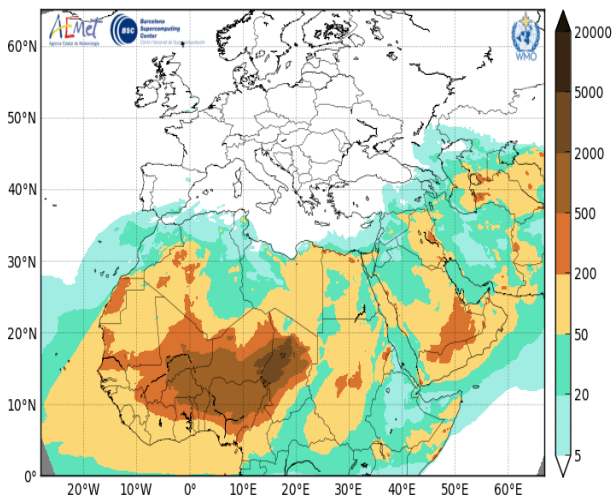
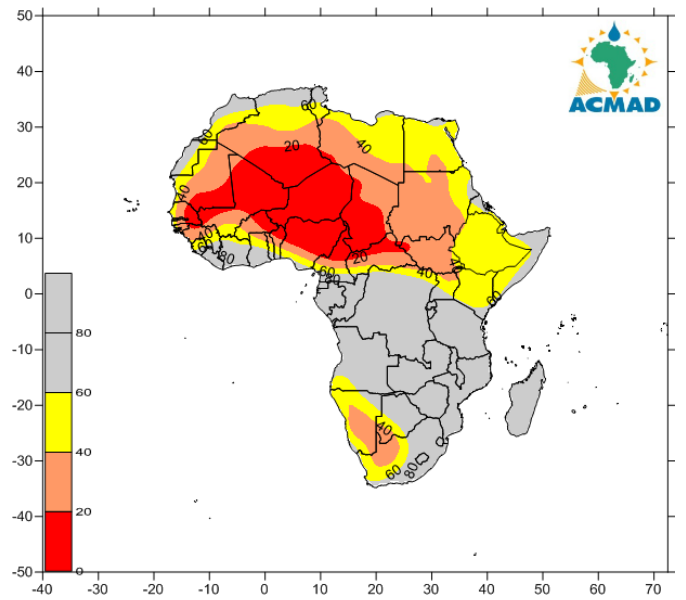


Figure 2: Relative Humidity 31<sup>st</sup> Jan to 6<sup>th</sup> Feb 2018  
Source: .NOAA/.NCEP-.NCAR/.CDAS-1/.DAILY



**Figure 3 : Dust Concentration ( $\mu\text{g}/\text{m}^3$ ) 6<sup>th</sup> Jan to 6<sup>th</sup> Feb 2018**

(Source WMO SDS-WAS: BSC-DREAM8b)



**Figure 4: Meridional Wind 31<sup>st</sup> Jan to 6<sup>th</sup> Feb 2018**

Source: .NOAA/.NCEP-NCAR/.CDAS-1/.DAILY

