CLIMATE & HEALTH BULLETIN: MENINGITIS VIGILANCE ZONES

African Centre of Meteorological Application for Development
Centre Africain pour les Applications de la Météorologie

Direction Générale ACMAD, BP 13184, 85 Avenue des Ministères, Niamey – Niger
Tél. (227) 20 73 49 92, Fax : (227) 20 72 36 27, E-mail : dgacmad@acmad.ne, Web : http://www.acmad.org

No: 03 from 15th to 22th January 2015

- ***Climate conditions are favorable for a high vigilance for meningitis cases over eastern Senegal, southern Mali and Niger, northern Burkina Faso, central Chad and southern Sudan.***
  Moderate vigilance is detected over eastern Gambia, central Senegal, northern Guinea, extreme southern Mali and Niger, northern Ghana, Benin, Nigeria and Cameroon, southern Burkina, southern Chad, extreme southern Car and extreme southern Sudan.
  Low vigilance is observed over coastal part of Senegal, Gambia and Bissau Guinea, northern Côte d'Ivoire, southern Guinea, central Ghana, Benin, Nigeria and northern South Sudan.
  Climate conditions favorable for the emergence of the meningitis maintained compared to last week.

OBSERVED CLIMATE SITUATION: 15th to 22th January 2015

- The southern parts of meningitis belt experienced low humidity (below 20%) in particular over most of Senegal, Gambia, Mali, Burkina Faso, southern Mauritania and Niger, and southwest of Chad. Relative humidity between 20 and 40% prevailed over northern Mali, Mauritania and northern Chad, southern Sudan, CAR, Togo, Benin, Nigeria, northern Côte d'Ivoire, Ghana, Guinea, Cameroun and Ethiopia. Relative humidity between 40 and 60% was observed over western and eastern Sudan and Ethiopia. High humidity was observed over the remaining parts of the belt. (Figure 2).
- Moderate dust concentration (between 200 and 500 **µg**/m^3) was observed over northern Mauritania, Mali and southern-west Algeria, most of Sudan, Senegal, Gambia, Guinea, Cote d'Ivoire and Ghana.ad, with peaks of about 2000 **µg**/m^3 over western Chad, Niger and Nigeria. (Figure 3).
- Negative meridian winds were dominant over much of the meningitis belt except Ethiopia, Côte d'Ivoire, Ghana, Togo, Benin, Guinea and Southern Nigeria. (Figure 4).
- The ITD is located over northern part of the Gulf of Guinea countries, central CAR and northern Cameroon. (See figure 2 No. 01 Dekadal bulletin 2015).
- **Given these climate conditions,** ***high vigilance is observed for meningitis cases over central Chad, Niger, Mali and Senegal, southern Sudan, extreme northern Burkina Faso and extreme southern Mauritania.***
  Moderate vigilance is detected over Gambia, Burkina Faso, South-Sudan, southern Senegal, northern Guinea, southern Mali, Niger, Sudan and Chad.
  Low vigilance is observed over extreme northern Côte d'Ivoire, Ghana and CAR, eastern South-Sudan, extreme southern Chad and eastern Ethiopia.

Figure 1: African Meningitis Belt

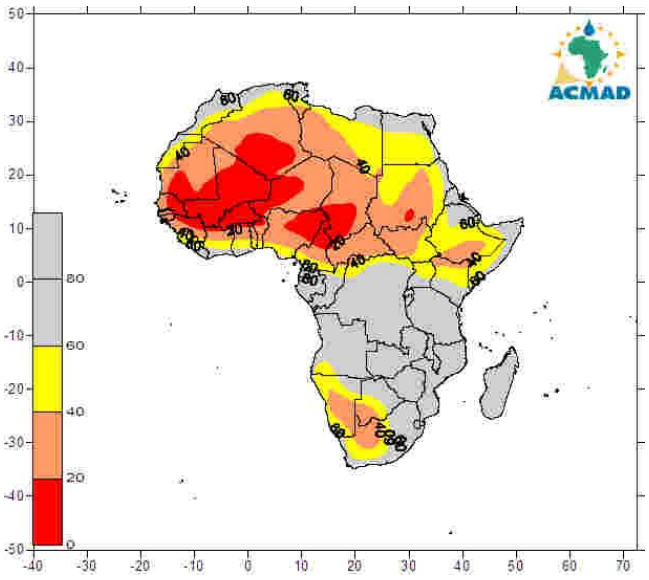


Figure 2: Relative Humidity 15nd to 22th Jan 2015

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

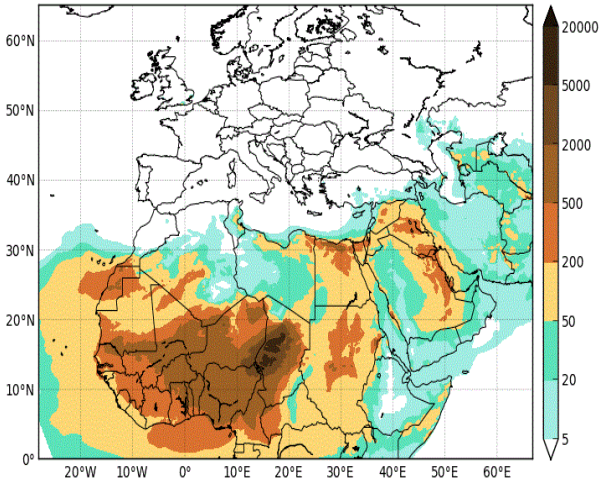


Figure 3 : Dust Concentration (µg/m^3) 15th to 22th Jan 2015

(Source WMO SDS-WAS: BSC-DREAM8b)

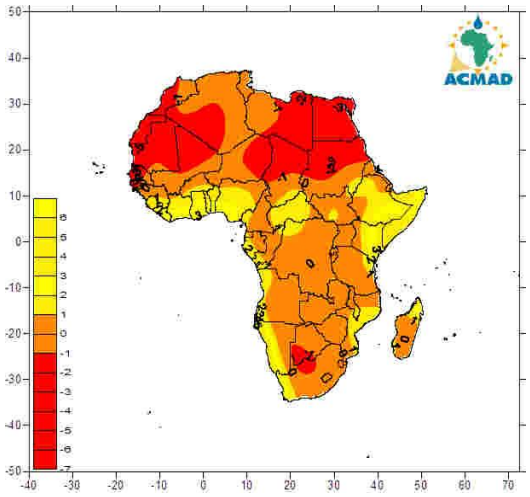
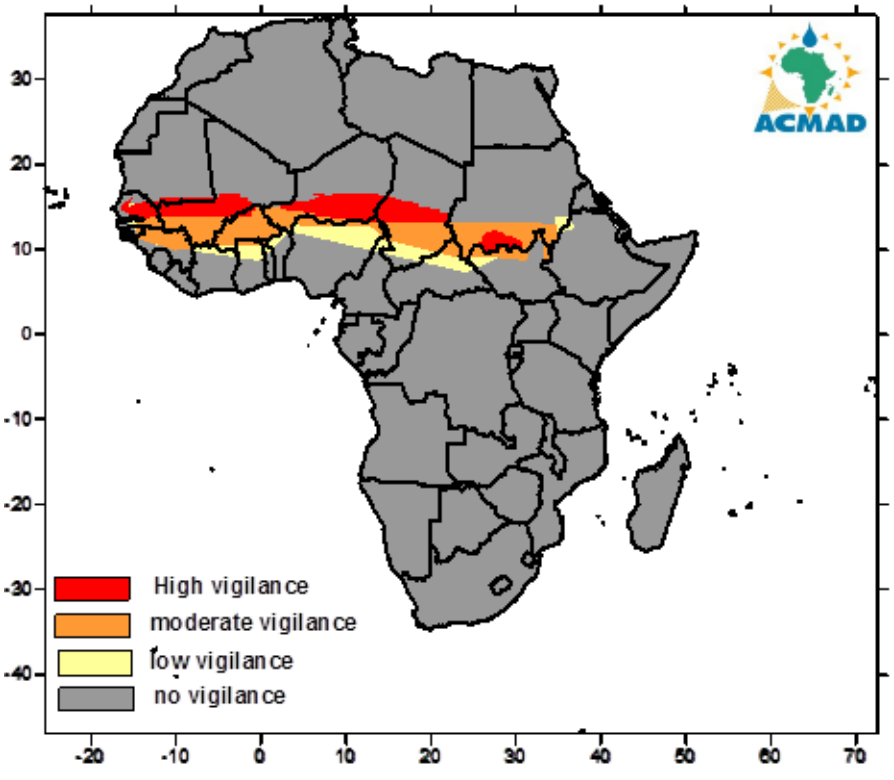


Figure 4: Meridional Wind 15thto 22th Jan 2015

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



Vigilance map for emergence of meningitis in Africa