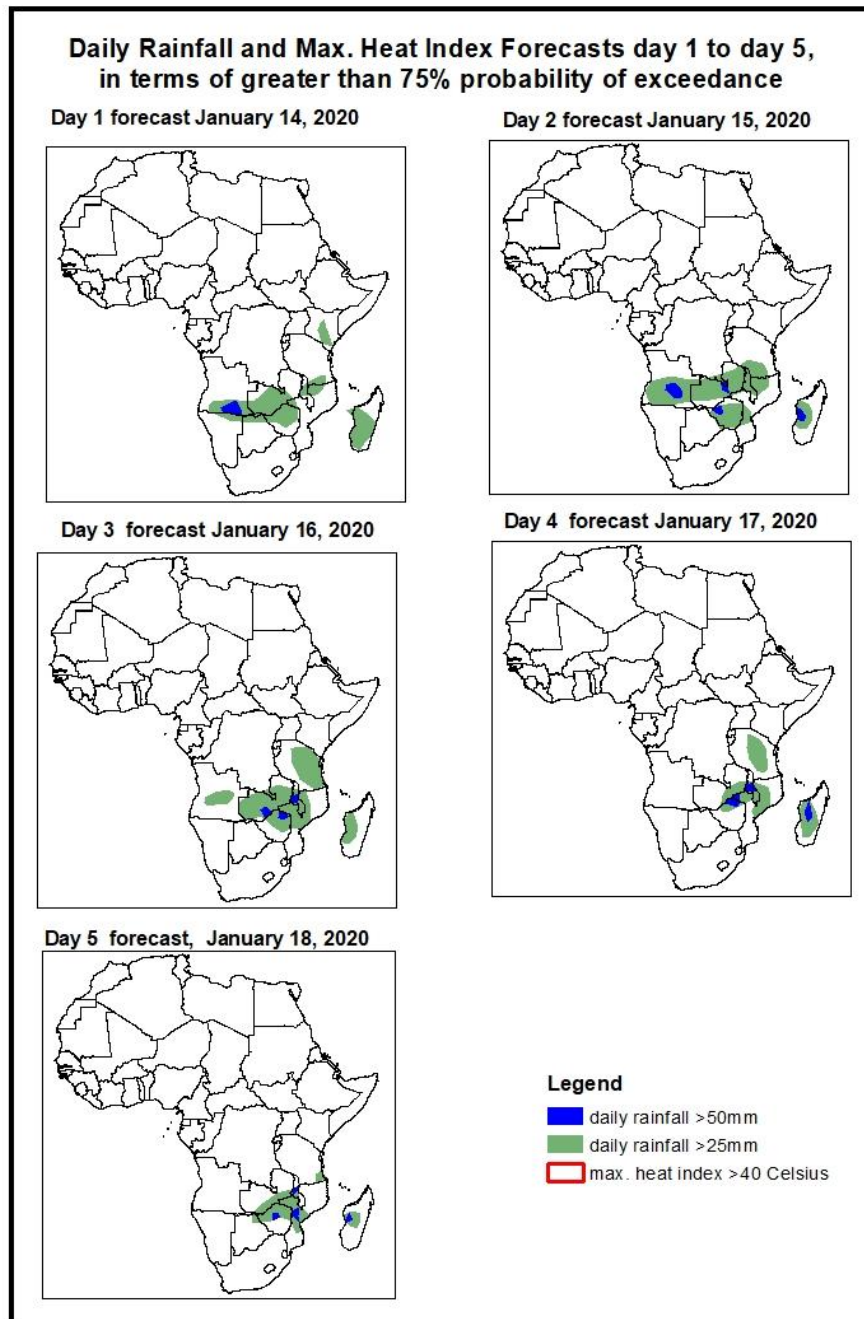


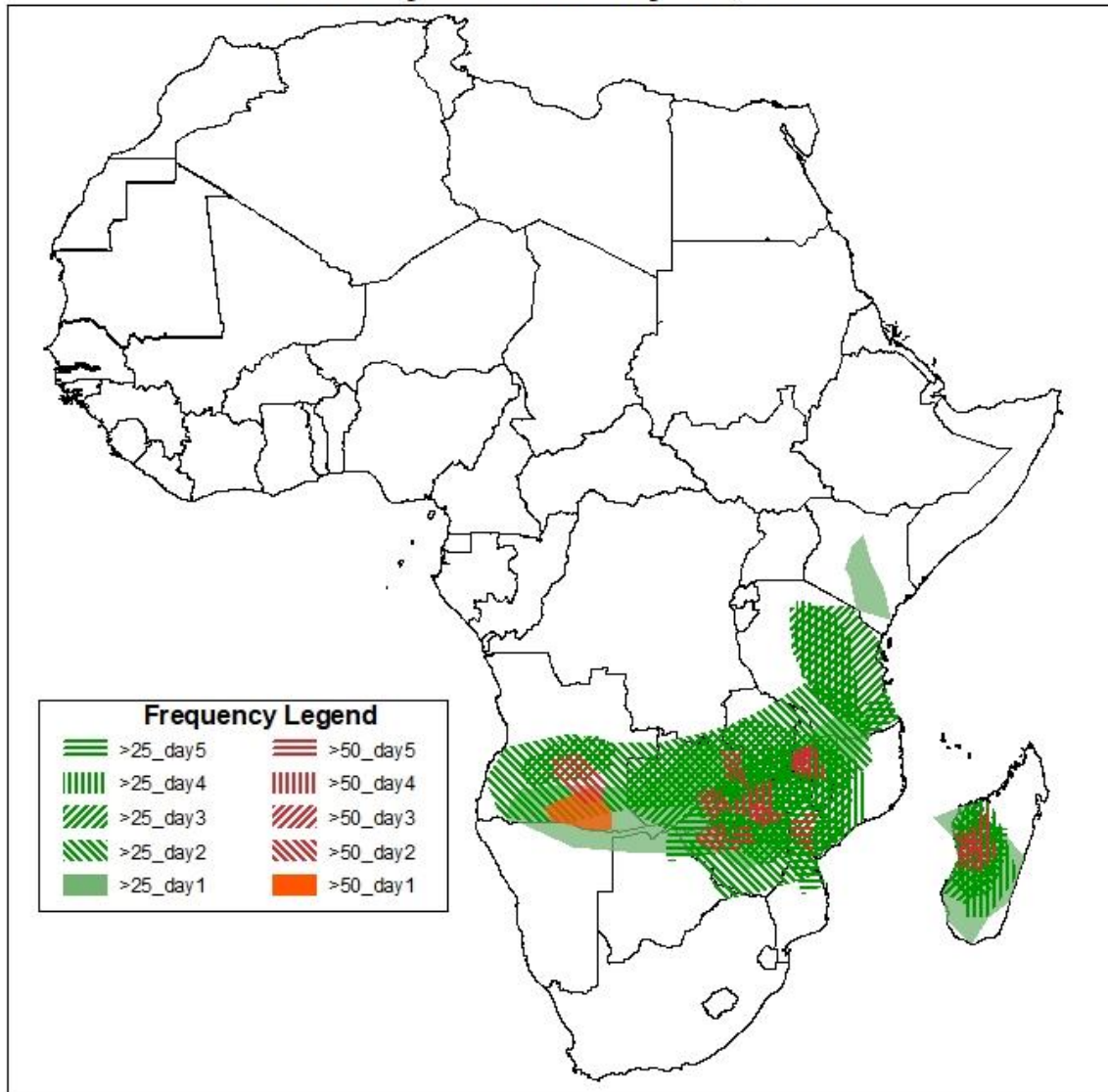
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on January 13, 2020)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 14 Jan – 18 Jan, 2020)

The forecasts are expressed in terms of high probability of precipitation (POP), valid 06Z to 06Z, and exceedance probability of maximum heat index ( $>40^{\circ}\text{C}$ ), based on the NCEP/GFS and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



## Five Days Rainfall Forecast Summary January 14 - January 18, 2020

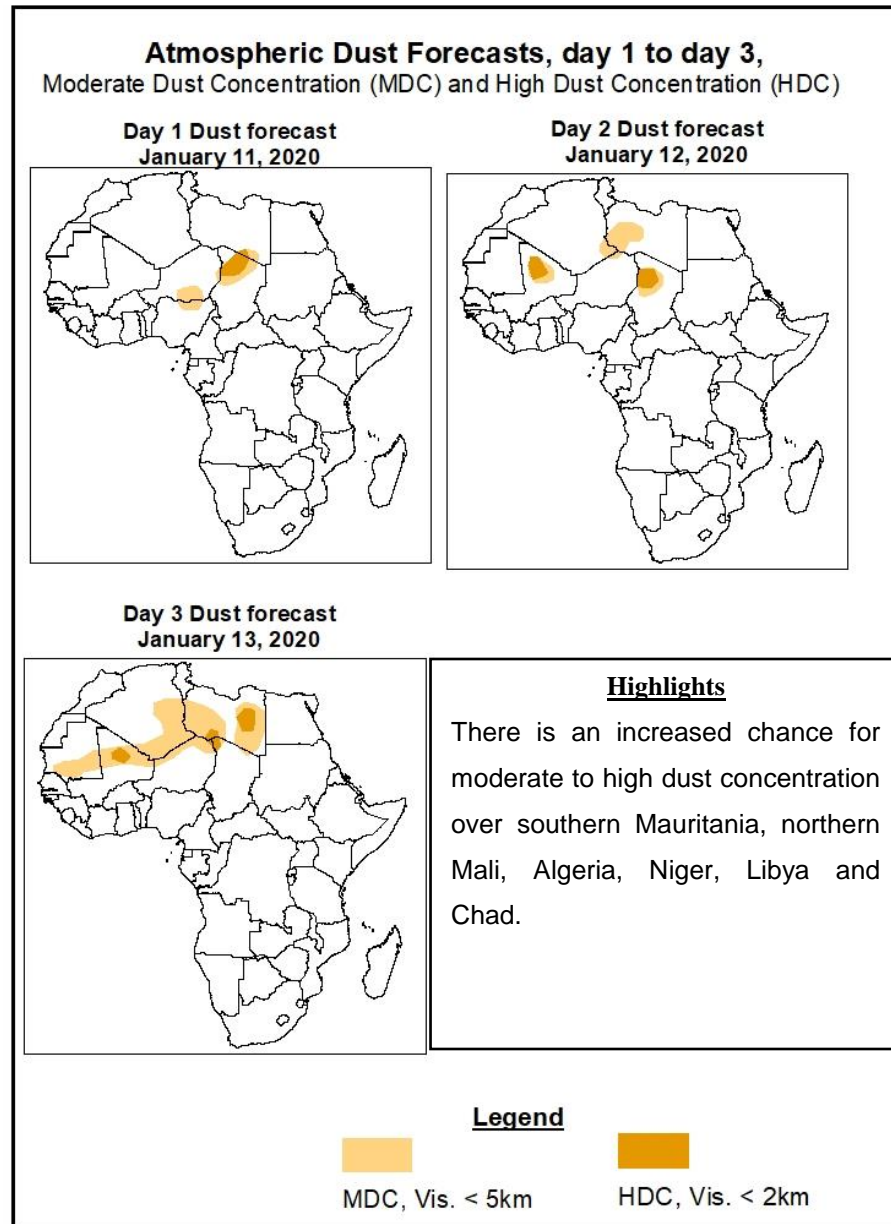


### **Highlights**

- Strong lower-level wind convergences are expected to enhance rainfall over the northern portions of Southern Africa, Tanzania and Madagascar.
- At least 25mm for two or more days is likely over portions of Angola, parts of Tanzania, Zambia, Zimbabwe, Mozambique, and Madagascar.
- There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Angola, Zambia, Zimbabwe, Mozambique and northern Madagascar.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 14 Jan – 16 Jan 2020)

The forecasts are expressed in terms of high probability of dust concentration, based on the Navy Aerosol Analysis and Prediction System, NCEP/GFS lower-level wind forecasts and expert assessment.



### **1.3. Model Discussion, Valid: 14 January – 18 January 2020**

The Azores High Pressure system over the Northeast Atlantic Ocean is expected to build up, with its central pressure value decreasing from 1028hPa to 1034hPa during the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is to build up gradually with its central pressure value increasing from 1028hPa to 1036hPa during the forecast period.

The Mascarene High Pressure system over Southwest of Indian Ocean is expected to weaken, while shifting eastwards with its central pressure value decreasing from 1027hPa to 1023hPa during the rest of the forecast period.

The Arabian Ridge is remain strong, stretching as far as northern Kenya, and is expected to maintain dry weather over northeastern Africa.

At 925-hPa level, strong dry northerly to northeasterly flow is expected to prevail across the Sahel region and northern Africa. Lower-level wind convergences are expected to remain active in the equatorial Africa region.

At 850-hPa level, lower level wind convergences are expected remain active in the equatorial Africa and the Lake Victoria regions. Lower-level cyclonic circulation associated with the Angola low is expected to remain active across eastern Angola and the neighboring areas. Lower-level cyclonic circulation in the Mozambique Channel is also expected to shift eastwards across Madagascar.

Strong lower-level wind convergences are expected to enhance rainfall over the northern portions of Southern Africa, Tanzania and Madagascar. At least 25mm for two or more days is likely over portions of Angola, parts of Tanzania, Zambia, Zimbabwe, Mozambique, and Madagascar. There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Angola, Zambia, Zimbabwe, Mozambique and northern Madagascar.

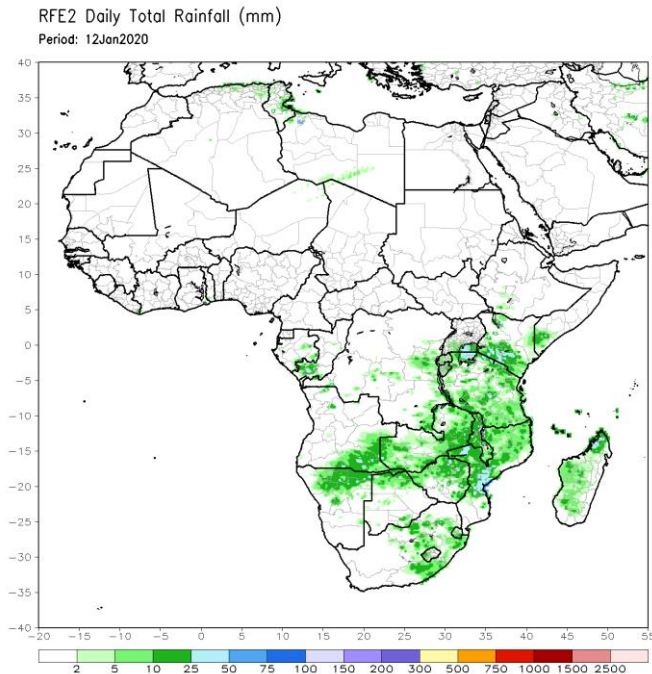
## 2.0. Previous and Current Day Weather over Africa

### 2.1. *Weather assessment for the previous day (January 12, 2020)*

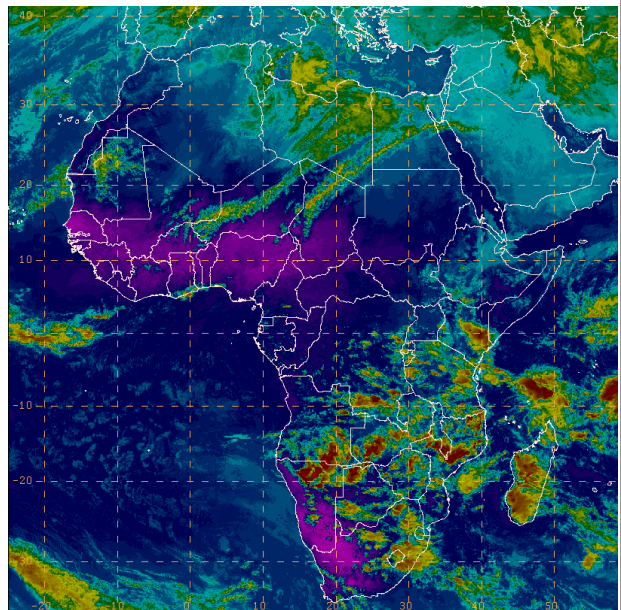
Daily rainfall amount exceeded 25mm over parts of Kenya and central Mozambique.

### 2.2. *Weather assessment for the current day (January 13, 2020)*

Deep convective clouds are observed over many places in East and Southern Africa, including Madagascar.



IR Satellite Image (valid 1552 January 13, 2020)



**Author: Musa SSEMUKU (CPC-African Desk/Uganda National Meteorological Authority)**