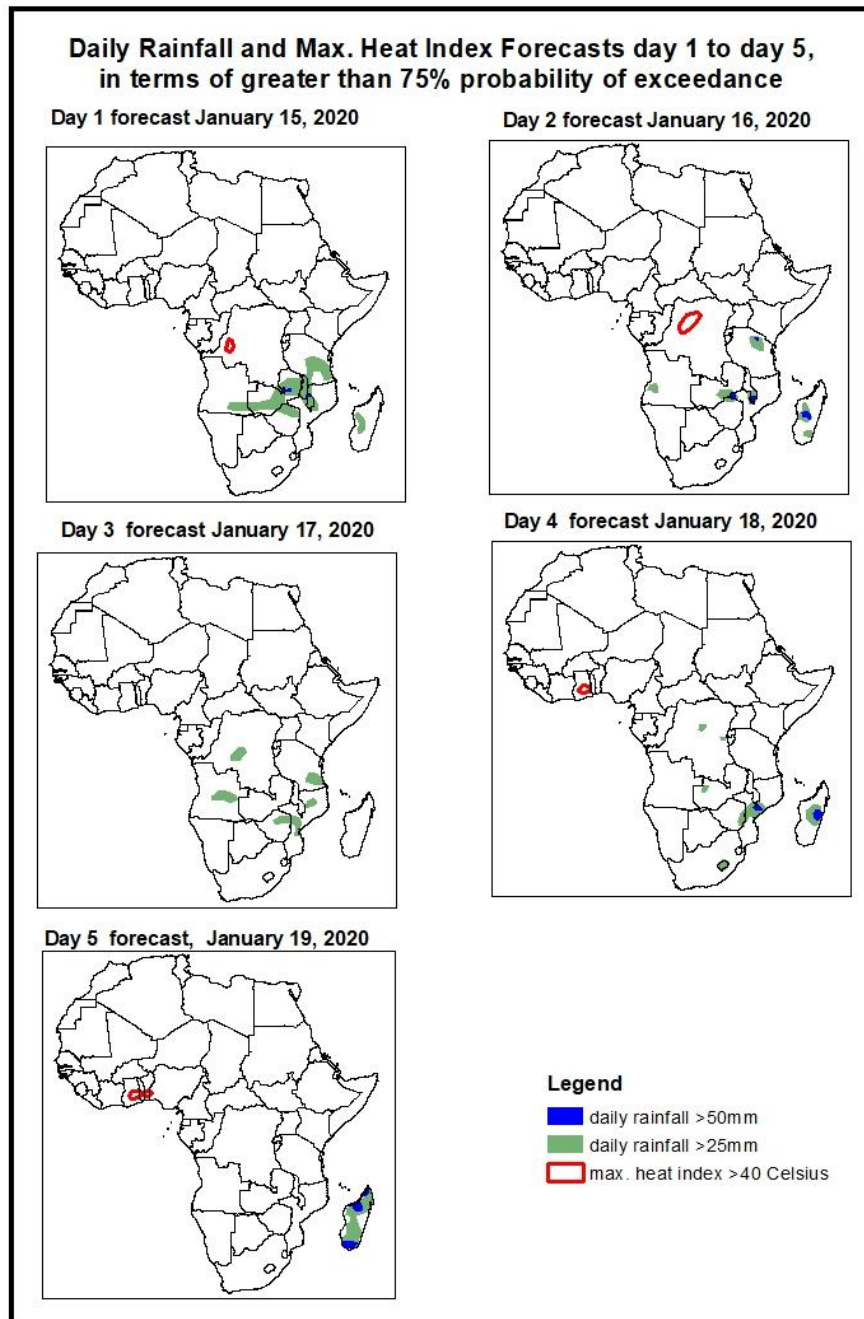


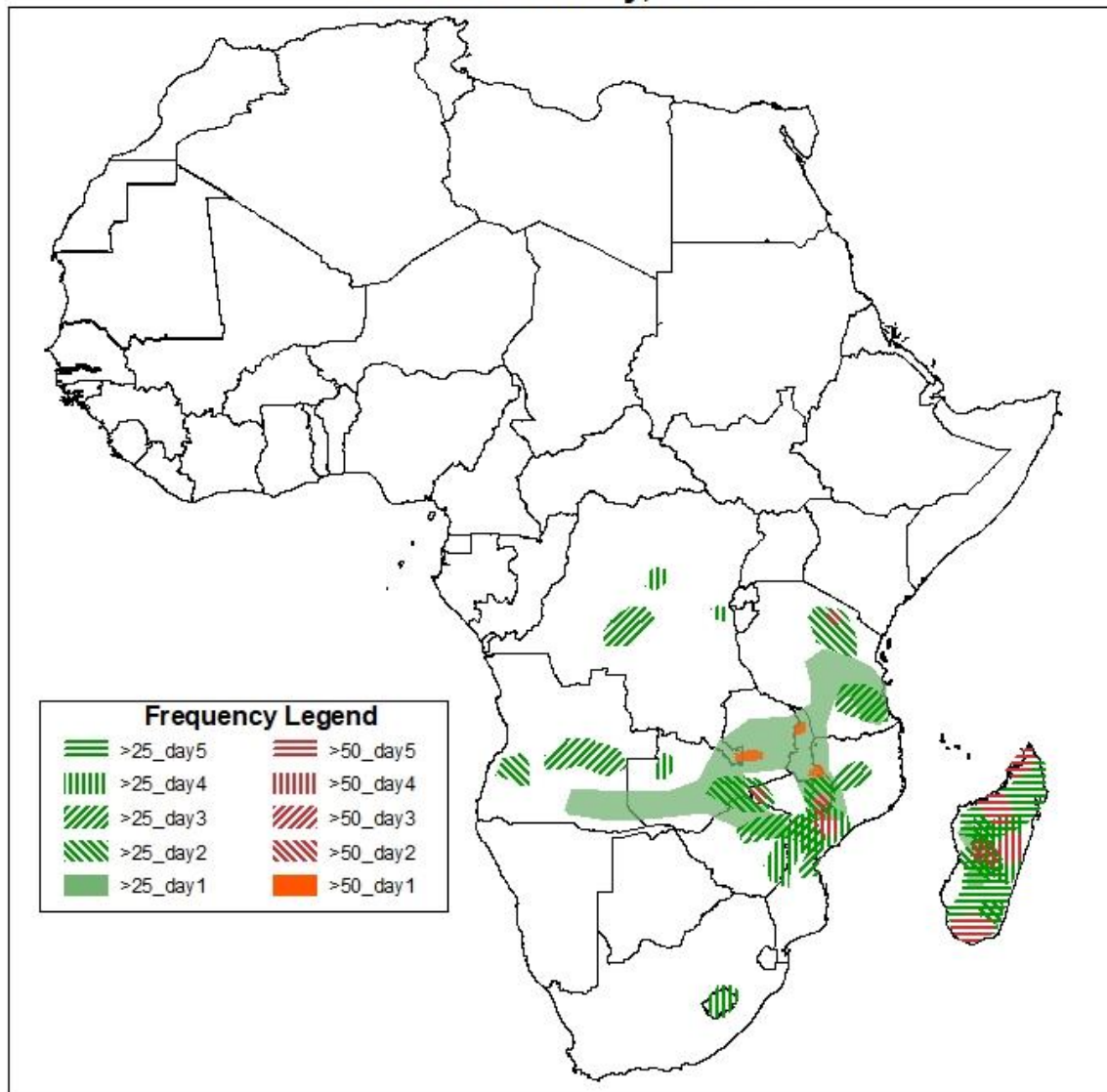
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on January 14, 2020)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 15 Jan – 19 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 15 - 19 January, 2020

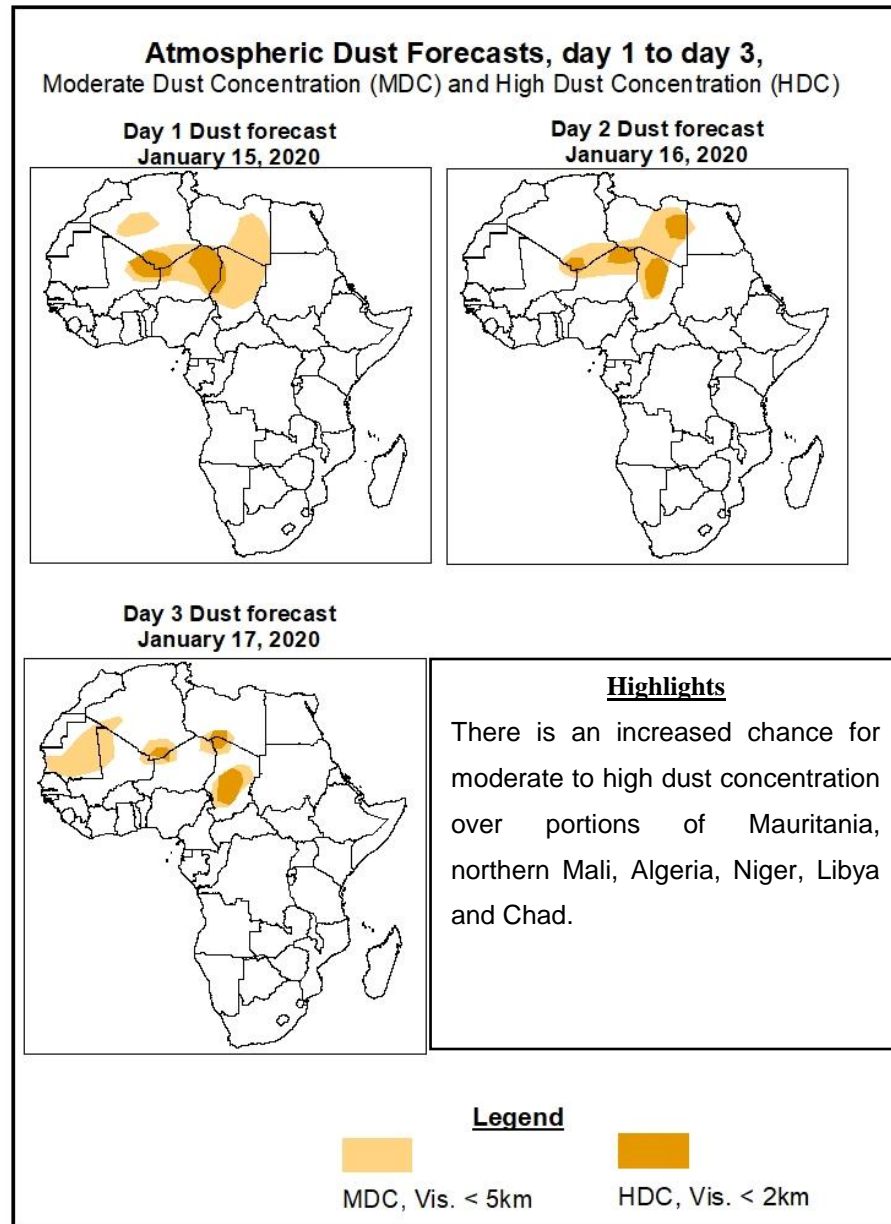


### **Highlights**

- 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 Zambia, eastern Zimbabwe, Tanzania, Mozambique and Madagascar.
- There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Zambia, Malawi, Mozambique and Madagascar.
- There is an increased chance for daily maximum heat index to exceed 40°C over local areas in Ghana, Togo, Benin and DRC.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 15 Jan – 17 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: 15 January – 19 January 2020**

The Azores High Pressure system over the Northeast Atlantic Ocean is expected to intensify, with its central pressure value increasing from 1038hPa to 1043hPa during the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is to intensify gradually with its central pressure value increasing from 1029hPa to 1035hPa 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 1029hPa 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 Zambia, eastern Zimbabwe, Tanzania, Mozambique and Madagascar. There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Zambia, Malawi, Mozambique and Madagascar. There is an increased chance for daily maximum heat index to exceed 40°C over local areas in Ghana, Togo, Benin and DRC.

## 2.0. Previous and Current Day Weather over Africa

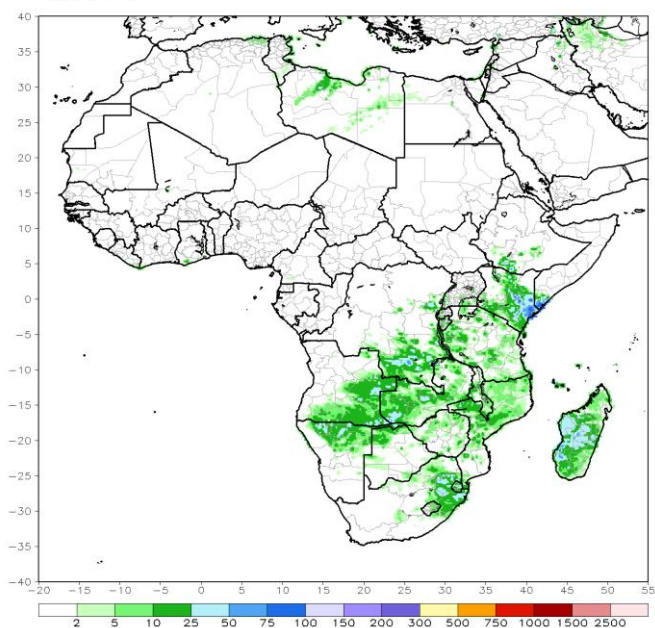
### 2.1. Weather assessment for the previous day (January 13, 2020)

Daily rainfall amount exceeded 25mm over local areas in Angola, Namibia and Zambia, southern DRC, eastern South Africa, eastern Kenya, southern Somalia and Madagascar. Daily rainfall amount exceeded 50mm over southeastern Kenya and the neighboring areas of southern Somalia.

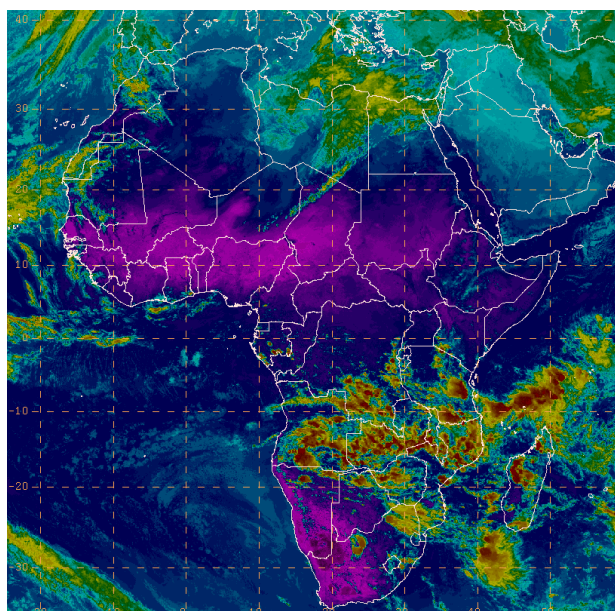
### 2.2. Weather assessment for the current day (January 14, 2020)

Deep convective clouds are observed over the northern portions of Southern Africa and Madagascar.

RFE2 Daily Total Rainfall (mm)  
Period: 13Jan2020



IR Satellite Image (valid 1552 January 14, 2020)



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