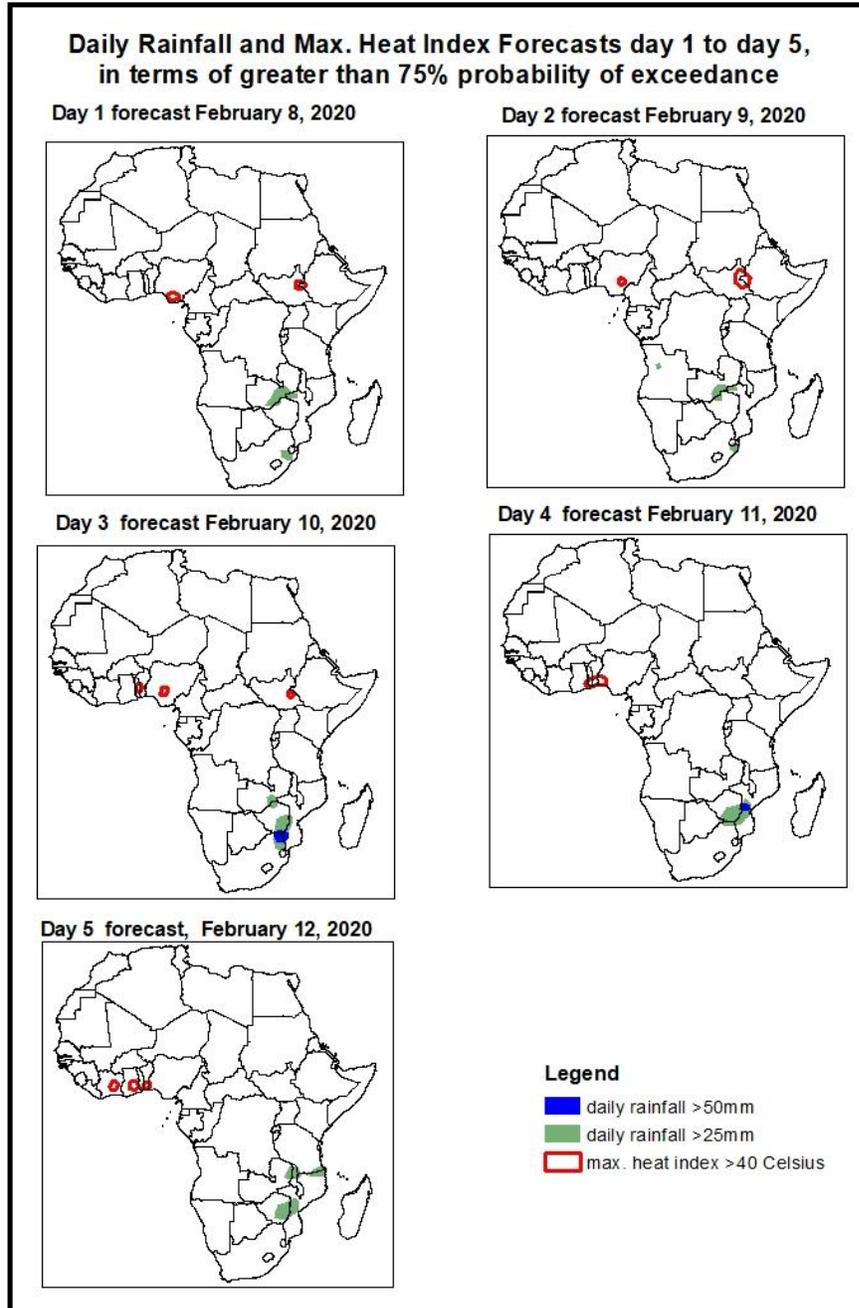


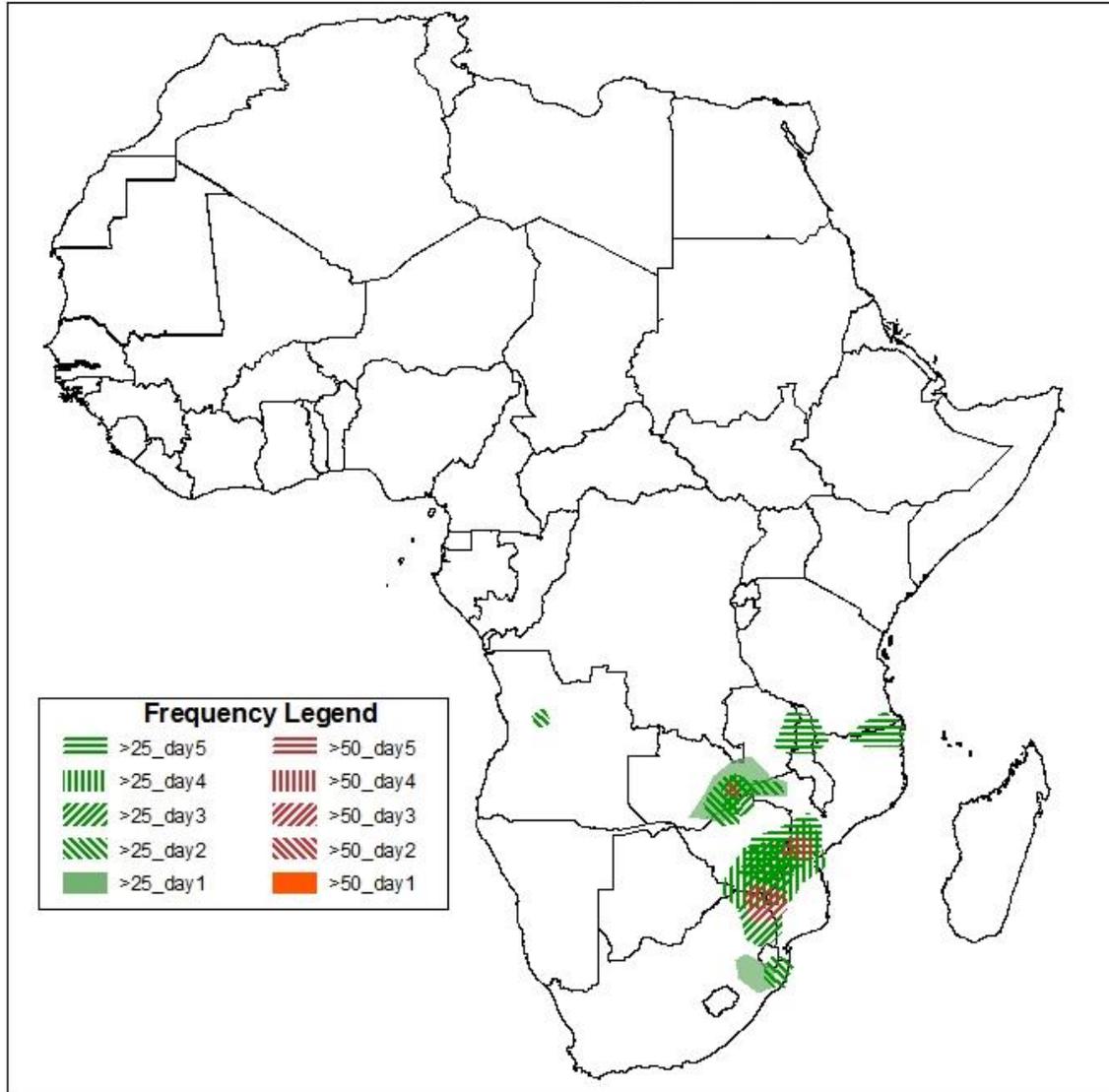
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on February 7, 2020)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 8 – 12 Feb, 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°C), based on the NCEP/GFS and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



## Five Days Rainfall Forecast Summary 8 - 12 February, 2020

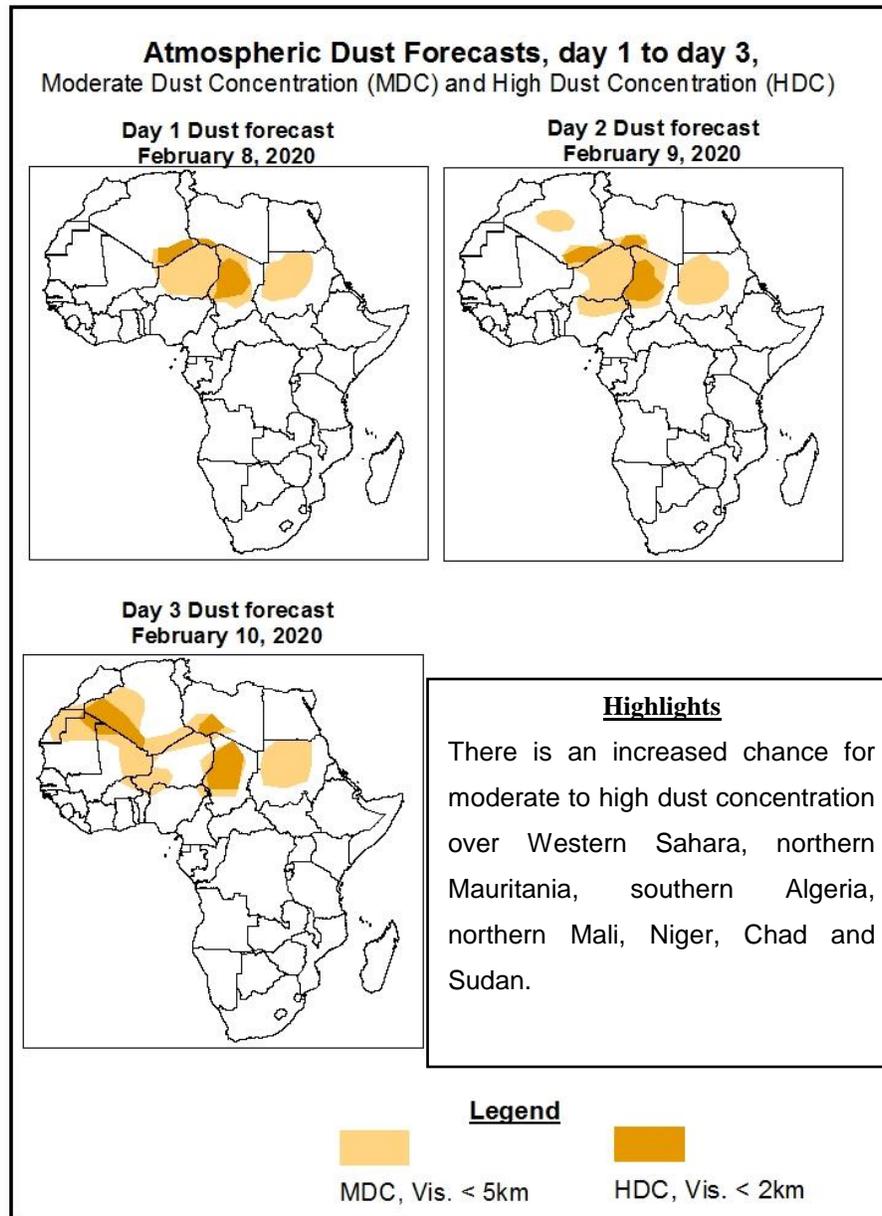


### **Highlights**

- Lower-level wind convergences and eastward propagating frontal systems are expected to enhance rainfall over local areas in portions of southeastern Africa.
- At least 25mm for two or more days is likely over local areas in southern Zambia, Zimbabwe. Central Mozambique and eastern South Africa.
- There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Zambia, Zimbabwe, central Mozambique and northeastern South Africa.
- There is an increased chance for daily maximum heat index to exceed 40°C over local areas in the Gulf of Guinea region, and eastern South Sudan and southwestern Ethiopia.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 8 – 10 Feb, 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: 8 – 12 February 2020***

The Azores High Pressure system over Northeast Atlantic and the neighboring areas is expected to intensify with its central pressure value increasing from 1029hPa to 1034hPa, while shifting northwest during the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to maintain an average central pressure value of 1021hPa during the forecast period.

The Mascarene High Pressure system over Southwest of Indian Ocean is expected to intensify, with its central pressure value increasing from 1028hPa to 1030hPa during the forecast period.

The Arabian Ridge across the northern part of the Greater Horn of Africa is expected to weaken gradually during the forecast period.

At 925-hPa level, an area of strong dry northerly to northeasterly flow is expected to enhance atmospheric dust concentration over portions of the Sahel region, and North Africa. Zonal wind convergences are expected to remain active in the equatorial Africa region.

At 850-hPa level, an area of lower level-wind convergence is expected to remain active across portions of southeastern Africa. An area of cyclonic trough is expected to prevail in the region between Angola and northern Mozambique.

At 500-hPa level, a trough associated with mid-latitude frontal system is expected to propagate eastward across eastern Mediterranean and the neighboring areas, and is likely to cause increase in cloudiness across Ethiopia towards end of the forecast period. A trough in the westerlies is also expected to propagate across South Africa during the forecast period.

Lower-level wind convergences and eastward propagating frontal systems are expected to enhance rainfall over local areas in portions of southeastern Africa. At least 25mm for two or more days is likely over local areas in southern Zambia, Zimbabwe, central Mozambique and eastern South Africa. There is an increased likelihood for daily rainfall to exceed 50mm over

local areas in Zambia, Zimbabwe, central Mozambique and northeastern South Africa. There is an increased chance for daily maximum heat index to exceed 40°C over local areas in the Gulf of Guinea region, and eastern South Sudan and southwestern Ethiopia.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (February 6, 2020)

Daily rainfall amount exceeded 25 mm over southern Congo, southern Angola, eastern South Africa, with rainfall amount in excess of 50 mm over locally areas in eastern South Africa.

### 2.2. Weather assessment for the current day (February 7, 2020)

Convective clouds are observed over many places in Southern Africa.

