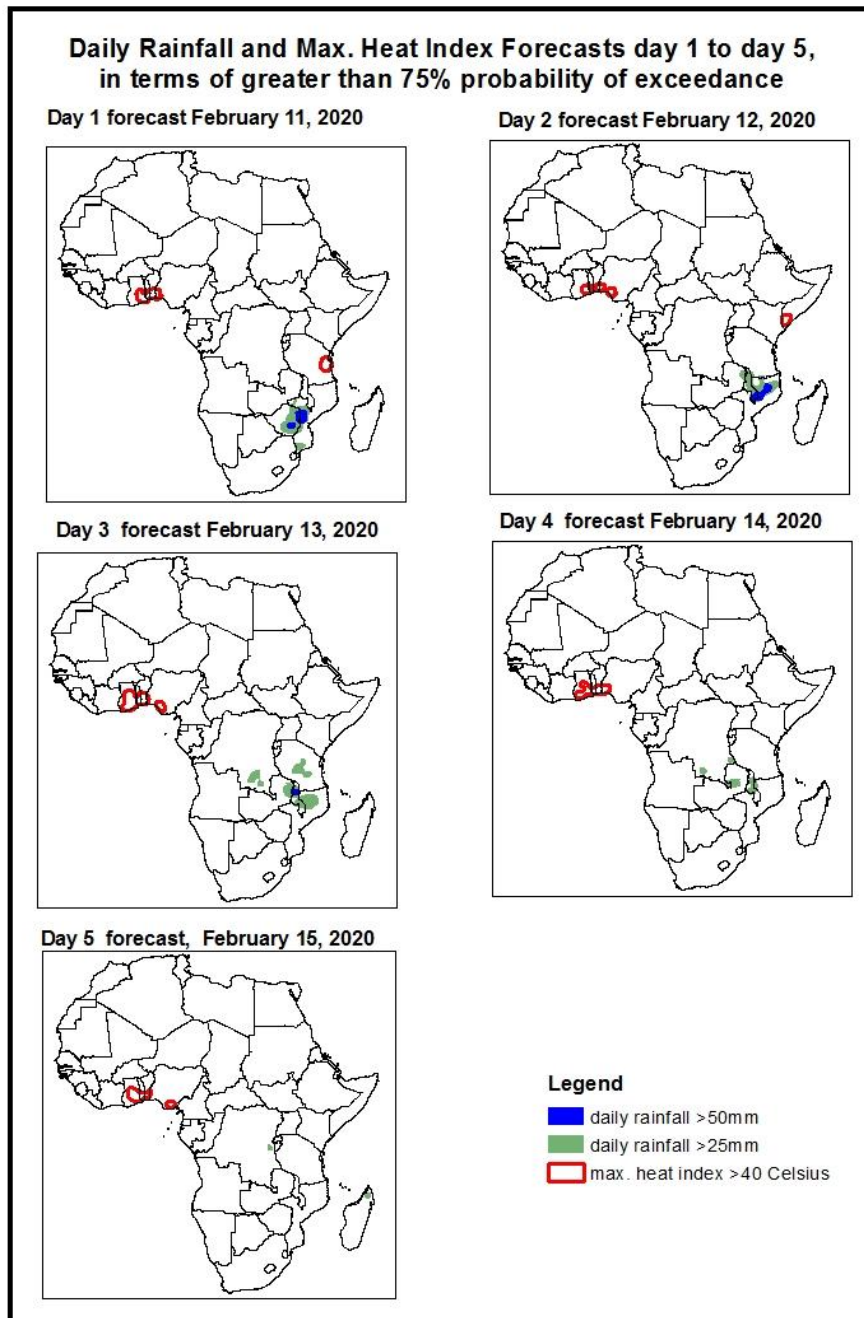


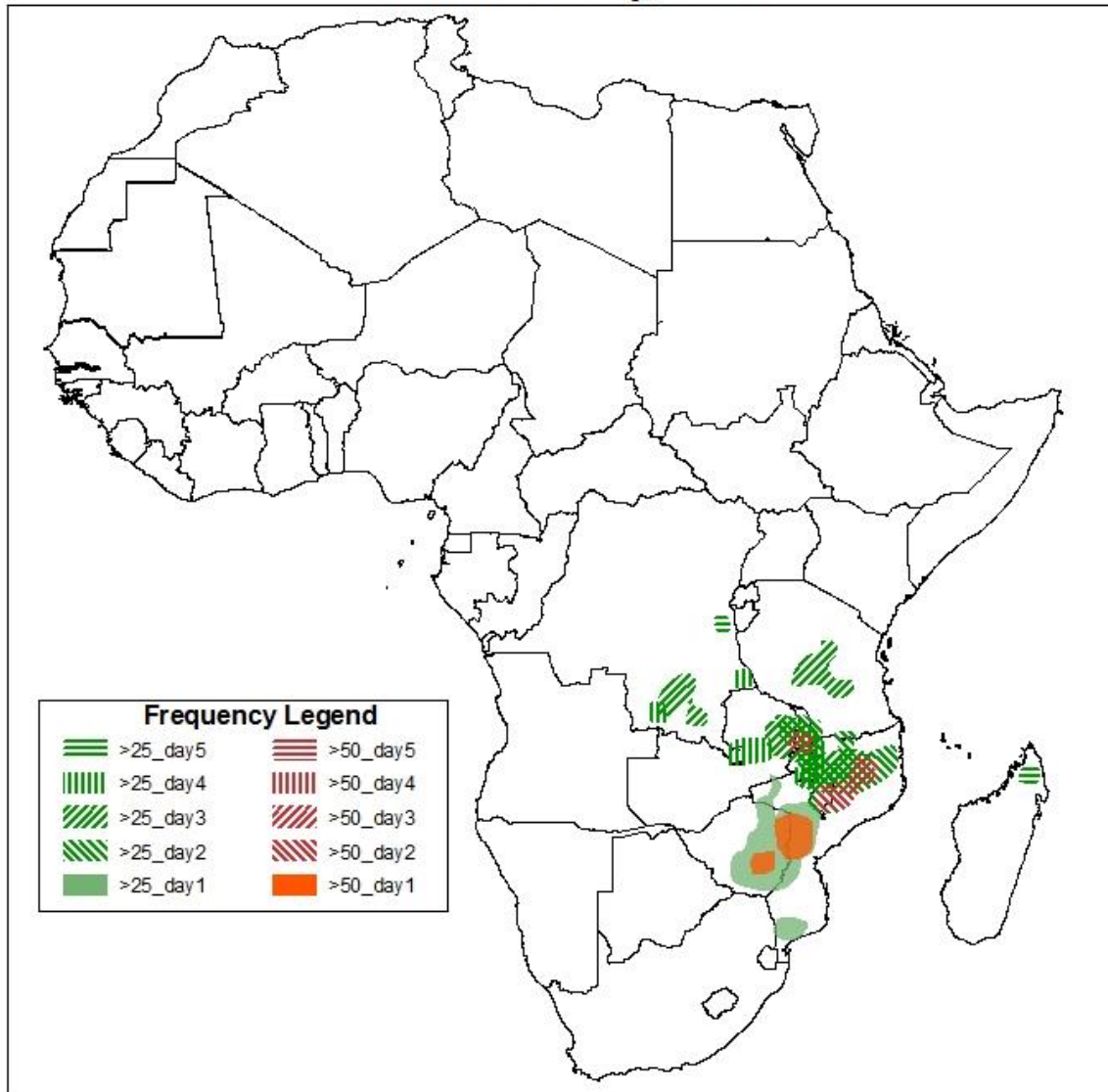
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on February 10, 2020)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 11 – 15 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 11 - 15 February, 2020

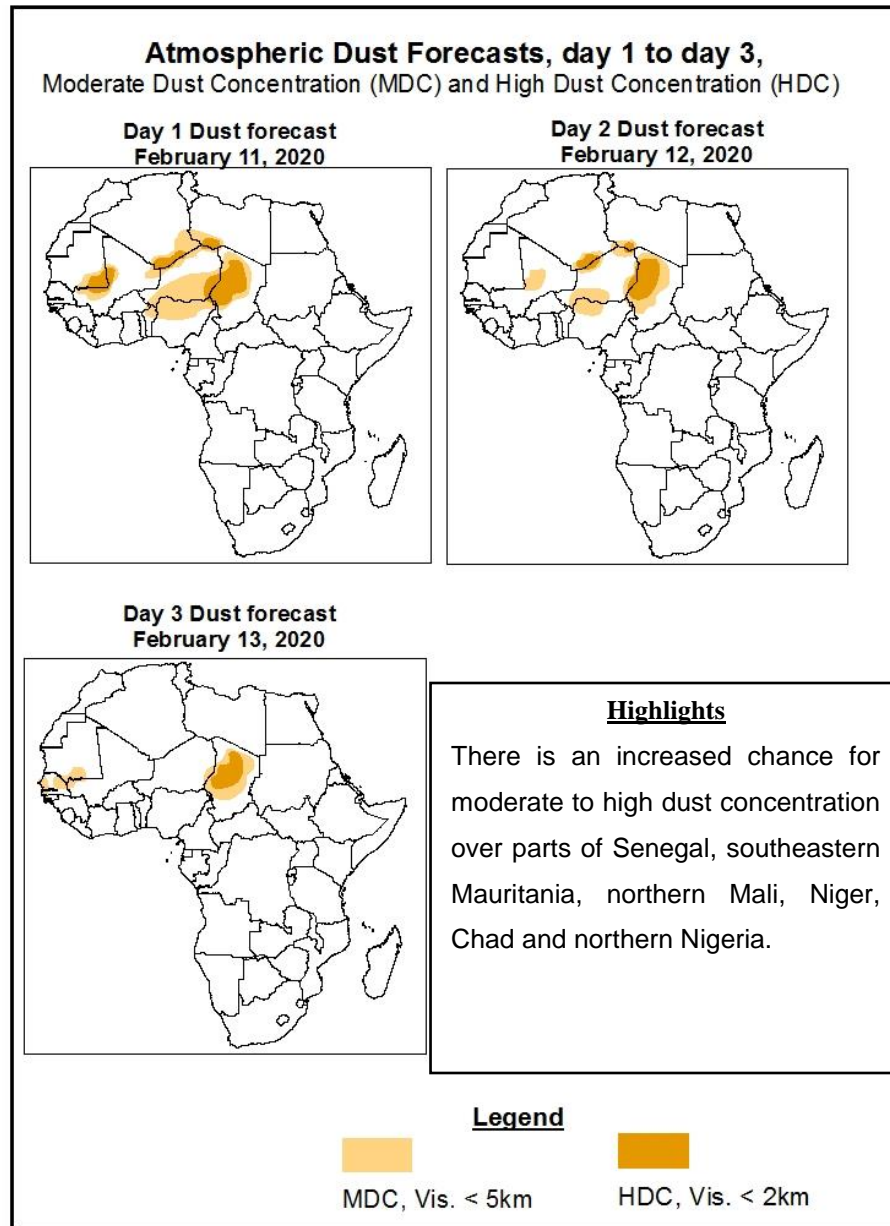


### **Highlights**

- Cyclonic troughs at low and mid-level atmosphere are expected to enhance rainfall over in portions of southeastern Africa, mostly across Zimbabwe and Mozambique.
- At least 25mm for two or more days is likely over local areas in Eastern Zimbabwe, Mozambique, Malawi and southeastern Zambia.
- There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Eastern Zimbabwe, Mozambique.
- There is an increased chance for daily maximum heat index to exceed 40°C over local areas in the Gulf of Guinea region, southwestern Somalia and northeastern Tanzania.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 11 – 15 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: 11 – 15 February 2020**

Due to a low pressure system deepening north of 40N, the Azores High Pressure system over Northeast Atlantic and the neighboring areas is expected to weaken significantly, with its central pressure value decreasing from 1034hPa to 1024hPa during the forecast period.

The St. Helena High Pressure system over the South Atlantic Ocean is expected to intensify 72 to 120 hours with his central pressure value increasing from 1022hPa to 1030hPa, while shifting to the southwestern part of the Atlantic Ocean.

The Mascarene High Pressure system over Southwest of Indian Ocean is expected to slightly weaken during the beginning of the forecast period, and then it tends to maintain an average central pressure value of 1025hPa during the rest of forecast period.

The Arabian Ridge across the northern part of the Greater Horn of Africa is expected to slightly weaken while maintaining its position over the area 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 Namibia and Mozambique.

At 500-hPa level, a trough associated with mid-latitude frontal system is expected to propagate eastward across the Middle-East region, and is likely to cause increased in cloudiness across Ethiopia during the forecast period. A cyclonic trough is also expected to propagate across Zimbabwe and Mozambique, with another cyclonic circulation prevailing over the Namibia coast. Otherwise an area of wind convergence is expected to remain active across the southeastern part of South Africa during the forecast period.

Cyclonic troughs at low and mid-level atmosphere are expected to enhance rainfall over local areas in portions of southeastern Africa mostly across Zimbabwe and Mozambique. At least 25mm for two or more days is likely over local areas in Eastern Zimbabwe, Mozambique, Malawi and southeastern Zambia. There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Eastern Zimbabwe, Mozambique. There is an increased chance for daily maximum heat index to exceed 40°C over local areas in the Gulf of Guinea region, southwestern Somalia and northeastern Tanzania.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (February 09, 2020)

Daily rainfall amount exceeded 25 mm over southern Zambia, southern Zimbabwe, with rainfall amount in excess of 50 mm over local areas in southern Mozambique and northeastern South Africa.

### 2.2. Weather assessment for the current day (February 10, 2020)

Convective clouds are observed over many places in Southern Africa.

