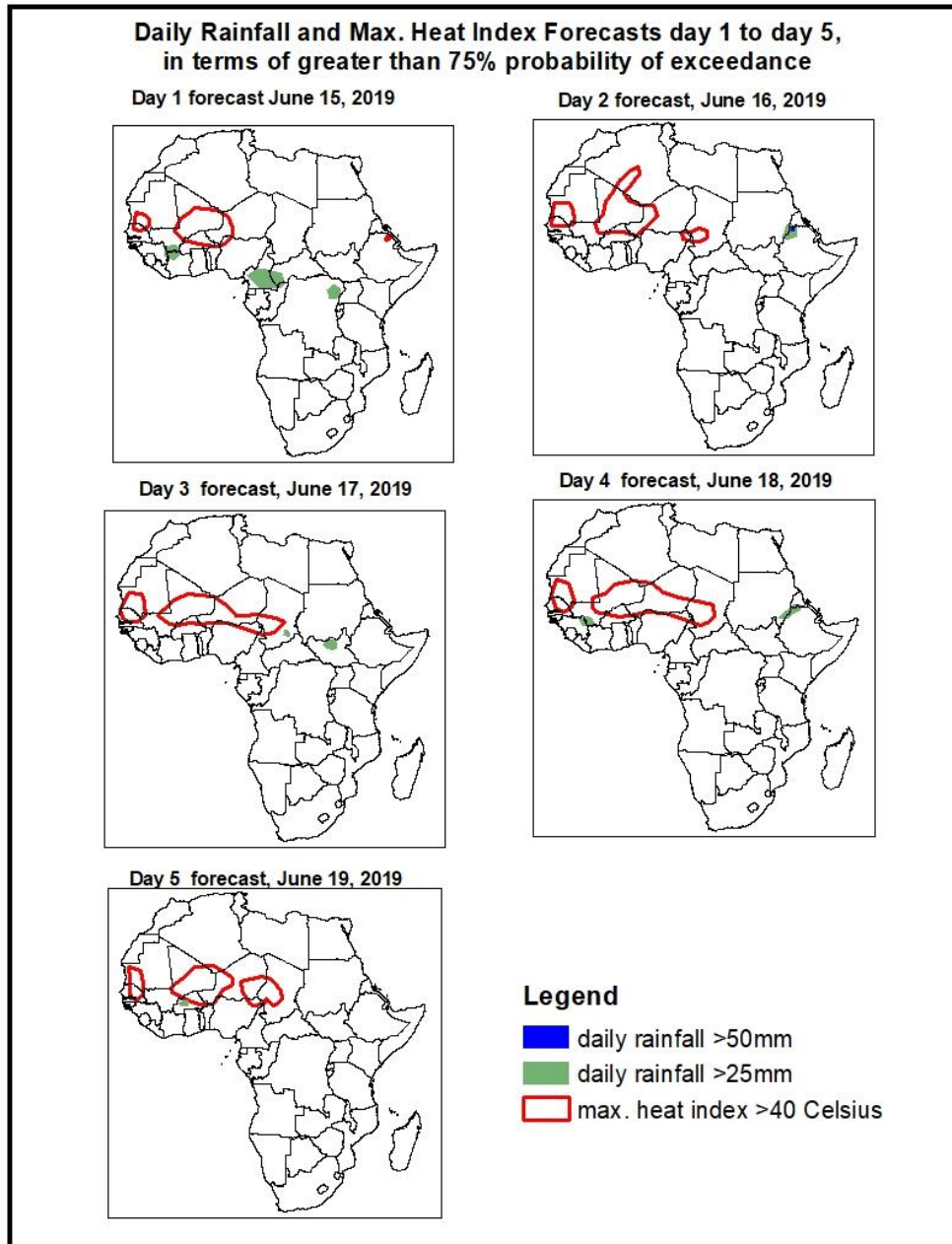


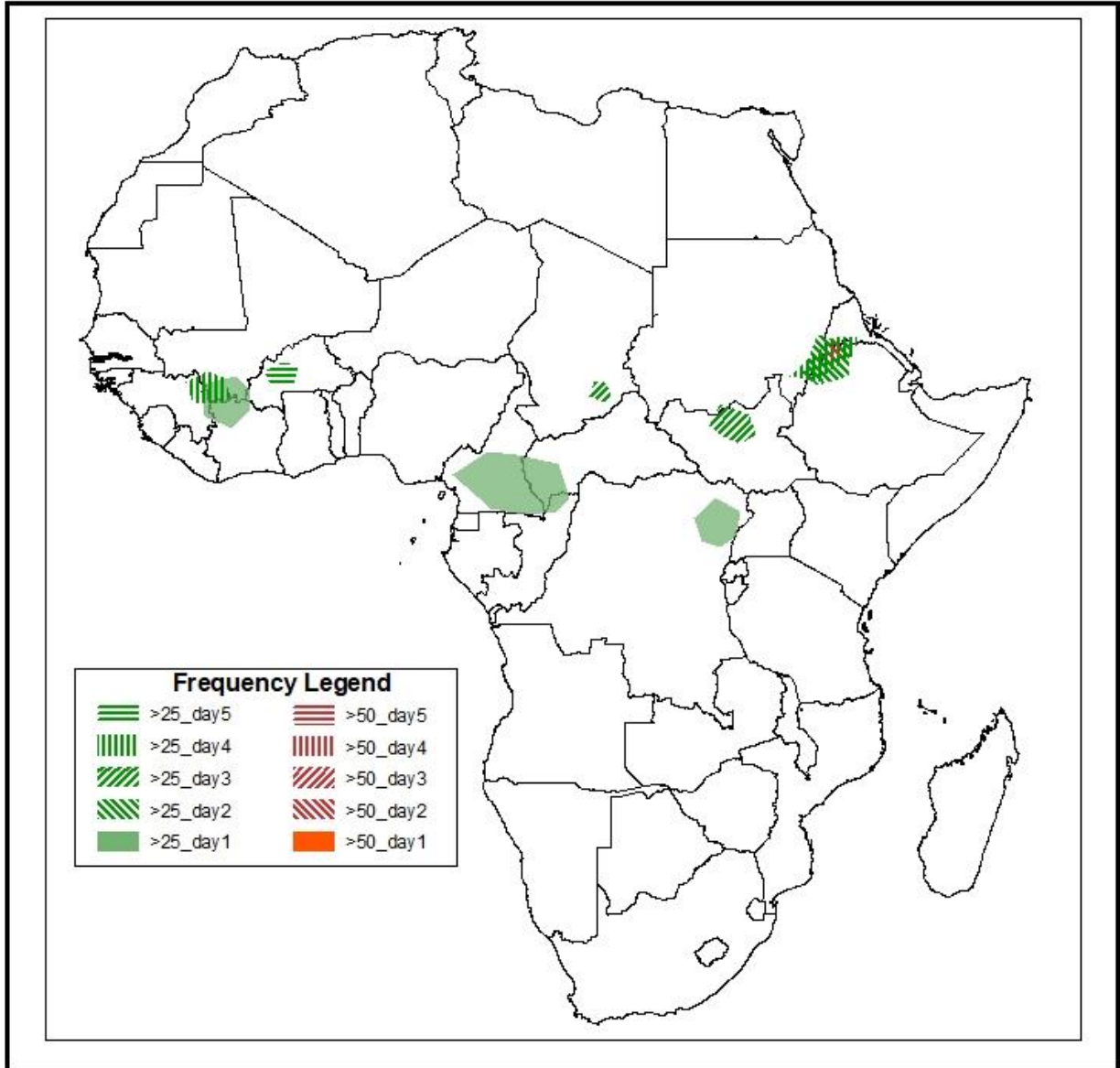
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on June 14, 2019)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 15 – 19 June, 2019)

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 15 - 19 June, 2019

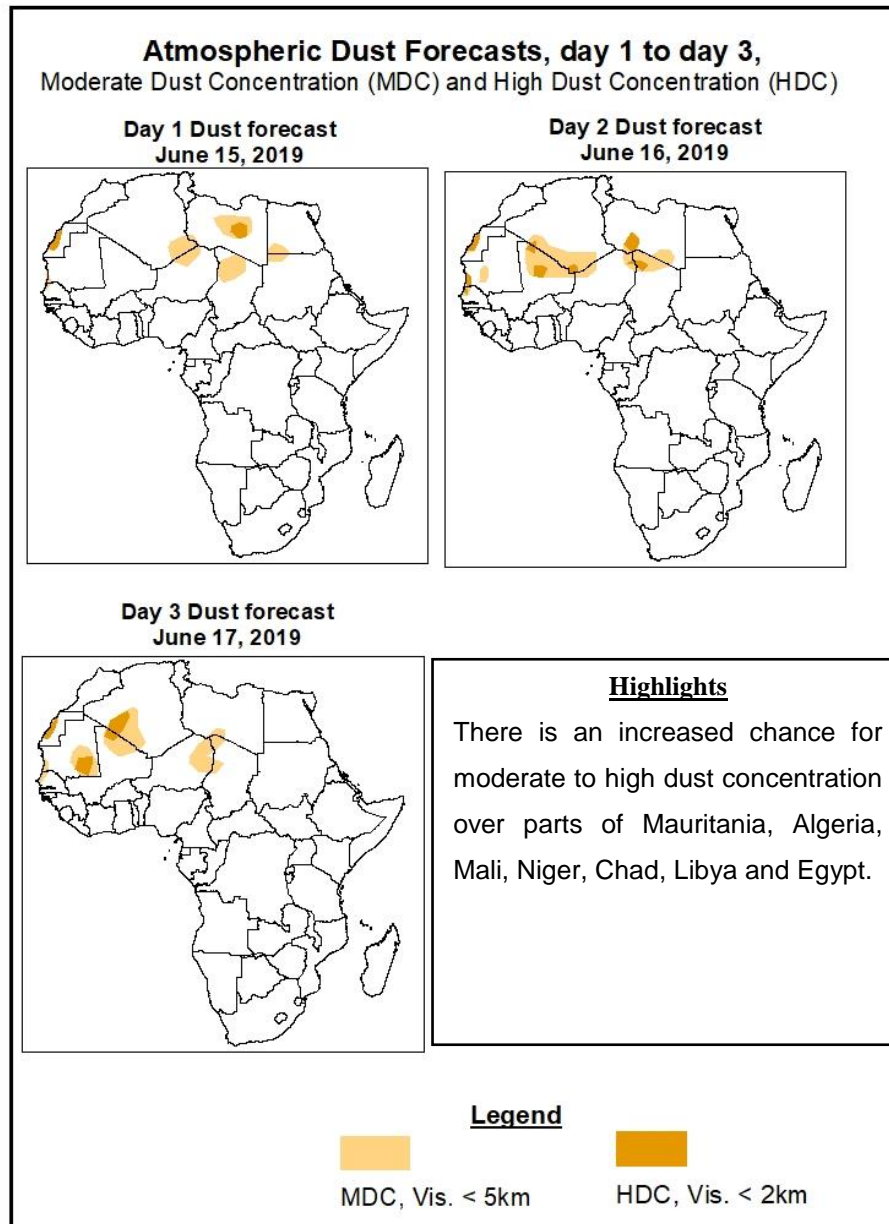


### Highlights

- The monsoon flow from the Atlantic Ocean with its associated lower-level convergence, and westward propagating meso-scale convective systems are expected to enhance rainfall over portions of the Gulf of Guinea and Sahel regions.
- Lower-level wind convergences are expected to enhance rainfall across portions of the Greater Horn of Africa.
- At least 25mm for two or more days is likely over portions of the Gulf of Guinea, Sahel and the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over local areas in Ethiopia.
- There is an increased chance for daily maximum heat index to exceed 40°C over portions of the Sahel region, and local areas in Northeast Ethiopia.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 15 – 17 June 2019)

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 – 19 June, 2019**

The Azores High Pressure system over the Northeast Atlantic is expected to weaken with its central pressure value decreasing from about 1026hpa to 1021hpa and stay just northwest of West Africa during the forecast period.

The St. Helena High Pressure system over Southeast Atlantic Ocean is expected to weaken, with its central pressure value decreasing from 1028hPa to 1023hPa through 96 hours.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to weaken with its central pressure value decreasing from 1033hPa to 1029hPa during the forecast period.

At 925hPa level, strong dry northerly to northeasterly flow is expected to prevail across portions of North Africa and the Sahel region. In contrast, moist westerly flow from the Atlantic Ocean is expected to prevail across the Gulf of Guinea region, and the neighboring areas of Central Africa.

At 850hPa, lower-level wind convergences are expected to remain active over portions of the Sahel region.

At 700hPa, strong easterly flow (>30kts) is expected to prevail across portions of the Gulf of Guinea region during the forecast period.

At 500hpa, wind speed associated with easterly flow is expected to exceed 30kts across many places in West Africa during the forecast period.

The monsoon flow from the Atlantic Ocean with its associated lower-level convergence, and westward propagating meso-scale convective systems are expected to enhance rainfall over portions of the Gulf of Guinea and Sahel regions. Lower-level wind convergences are expected to enhance rainfall across portions of the Greater Horn of Africa. At least 25mm for two or more days is likely over portions of the Gulf of Guinea, Sahel and the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over local areas in

Ethiopia. There is an increased chance for daily maximum heat index to exceed 40oC over portions of the Sahel region, and local areas in Northeast Ethiopia.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (June 13, 2019)

Light to Moderate rainfall was observed over portions of West and Central Africa

### 2.2. Weather assessment for the current day (June 14, 2019)

Deep convective cloud is observed over local areas in the Gulf of Guinea region, and central and portions of the Greater Horn of Africa.

