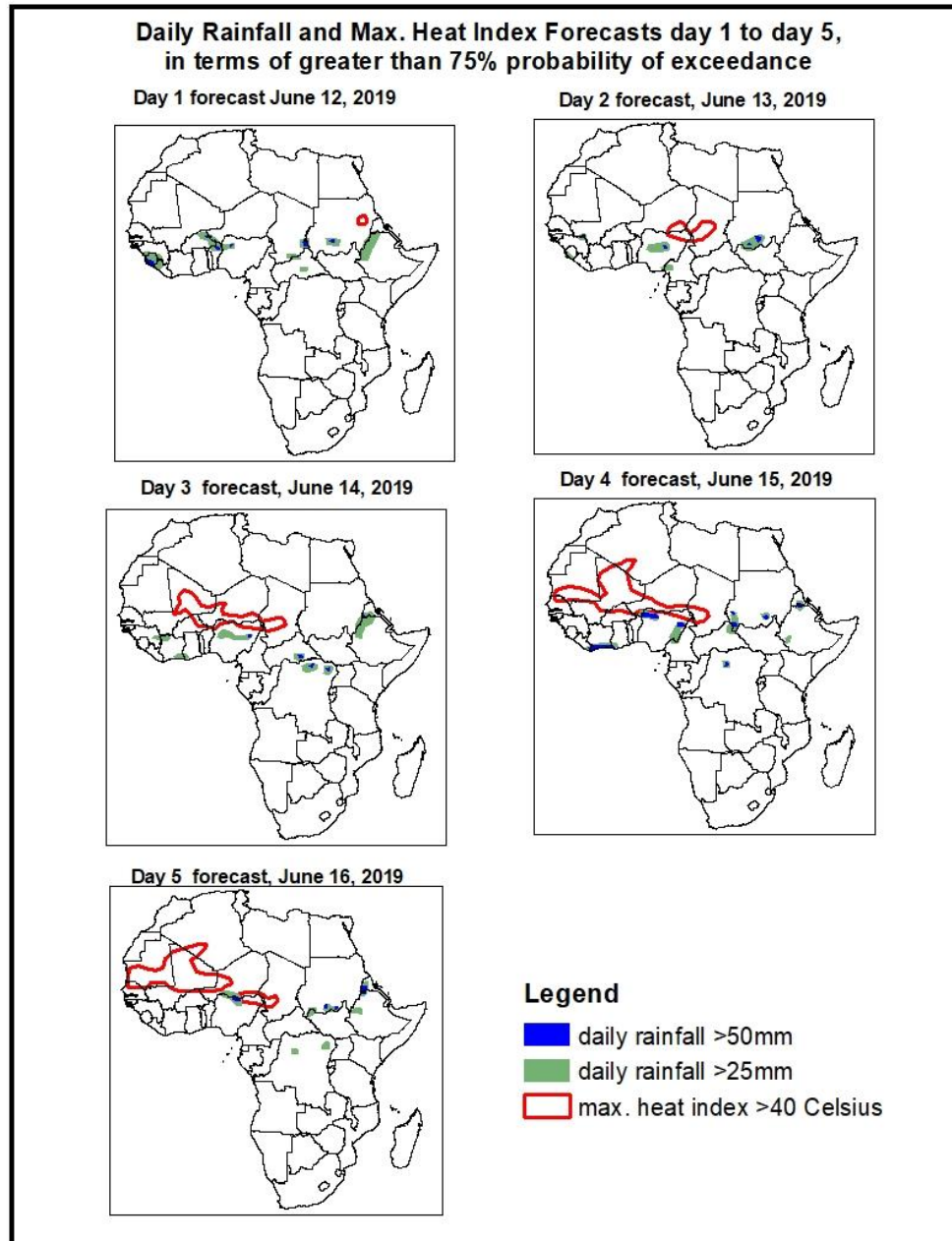


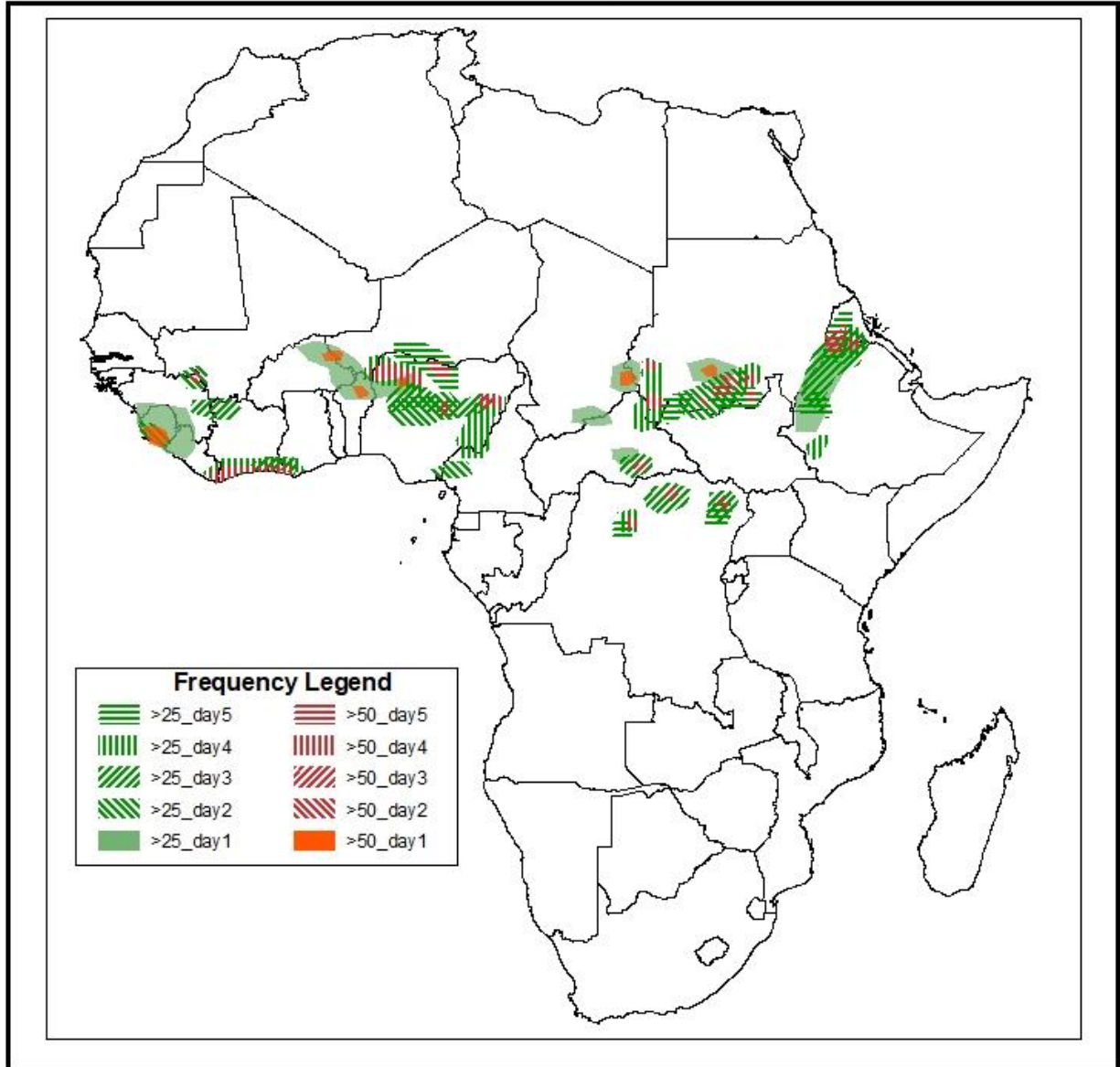
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on June 11, 2019)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 12 – 16 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 ( $>40^{\circ}\text{C}$ ), based on the NCEP/GFS and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



## Five Days Rainfall Forecast Summary 12 - 16 June, 2019

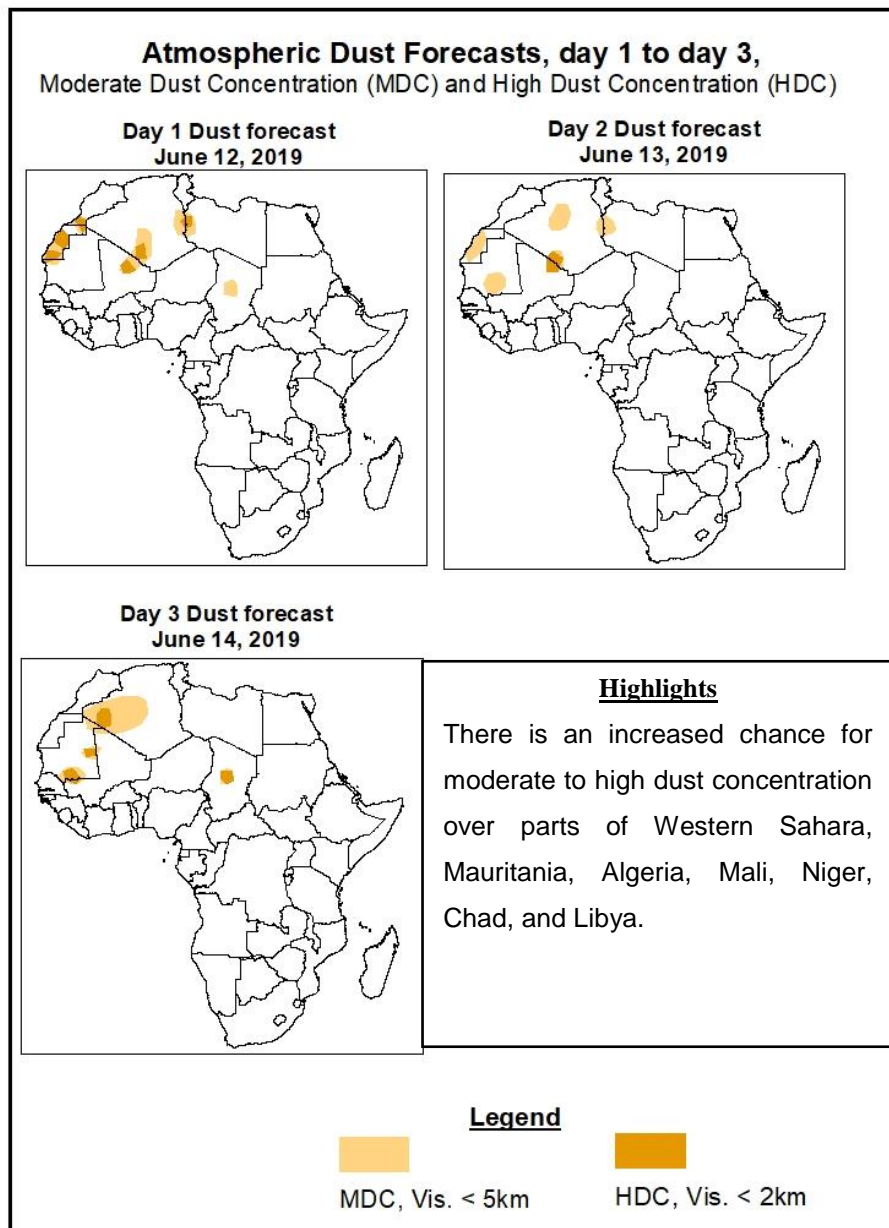


### Highlights

- 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 Sahel region.
- 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 portions of the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over portions of Sierra Leone, coastal Cote d'Ivoire, Burkina Faso, Niger, Nigeria, Chad, Sudan, South Sudan, DRC, and Ethiopia.
- There is an increased chance for daily maximum heat index to exceed 40°C over portions of the Sahel region.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 11 – 13 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: 11 – 15 June, 2019**

The Azores High Pressure system over the Northeast Atlantic is expected to weaken with its central pressure value decreasing from about 1029hpa to 1023hpa and stay just northwest of West Africa during the forecast period.

The St. Helena High Pressure system over Southeast Atlantic Ocean is expected to strengthen, with its central pressure value increasing from 1029hPa to 1034hPa through 96 hours.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to weaken with its central pressure value decreasing from 1034hPa to 1030hPa during the forecast period.

At 925hPa level, strong dry northerly flow is expected to prevail across Northwest Africa. 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 over much of the Sahel region.

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

At 500hpa, wind speed associated with easterly flow is expected to exceed 30kts across many places in West Africa towards end of 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 Sahel region. 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 portions of the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over portions of Sierra Leone, coastal Cote d'Ivoire, Burkina Faso, Niger, Nigeria, Chad, Sudan, South Sudan, DRC, and

Ethiopia. There is an increased chance for daily maximum heat index to exceed 40°C over portions of the Sahel region.

## 2.0. Previous and Current Day Weather over Africa

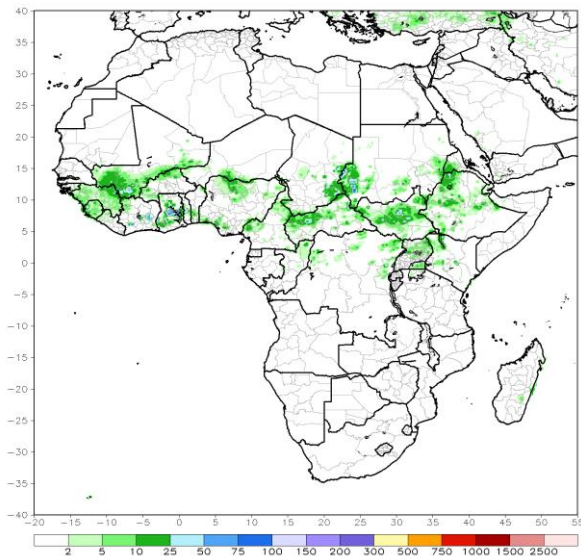
### 2.1. *Weather assessment for the previous day* (June 10, 2019)

Daily rainfall exceeded 25mm over local areas in Cote d'Ivoire, Ghana, Sudan and South Sudan.

### 2.2. *Weather assessment for the current day* (June 11, 2019)

Deep convective cloud is observed over central and portions of the Greater Horn of Africa.

RFE2 Daily Total Rainfall (mm)  
Period: 10Jun2019



IR Satellite Image (valid 1452 June 11, 2019)

