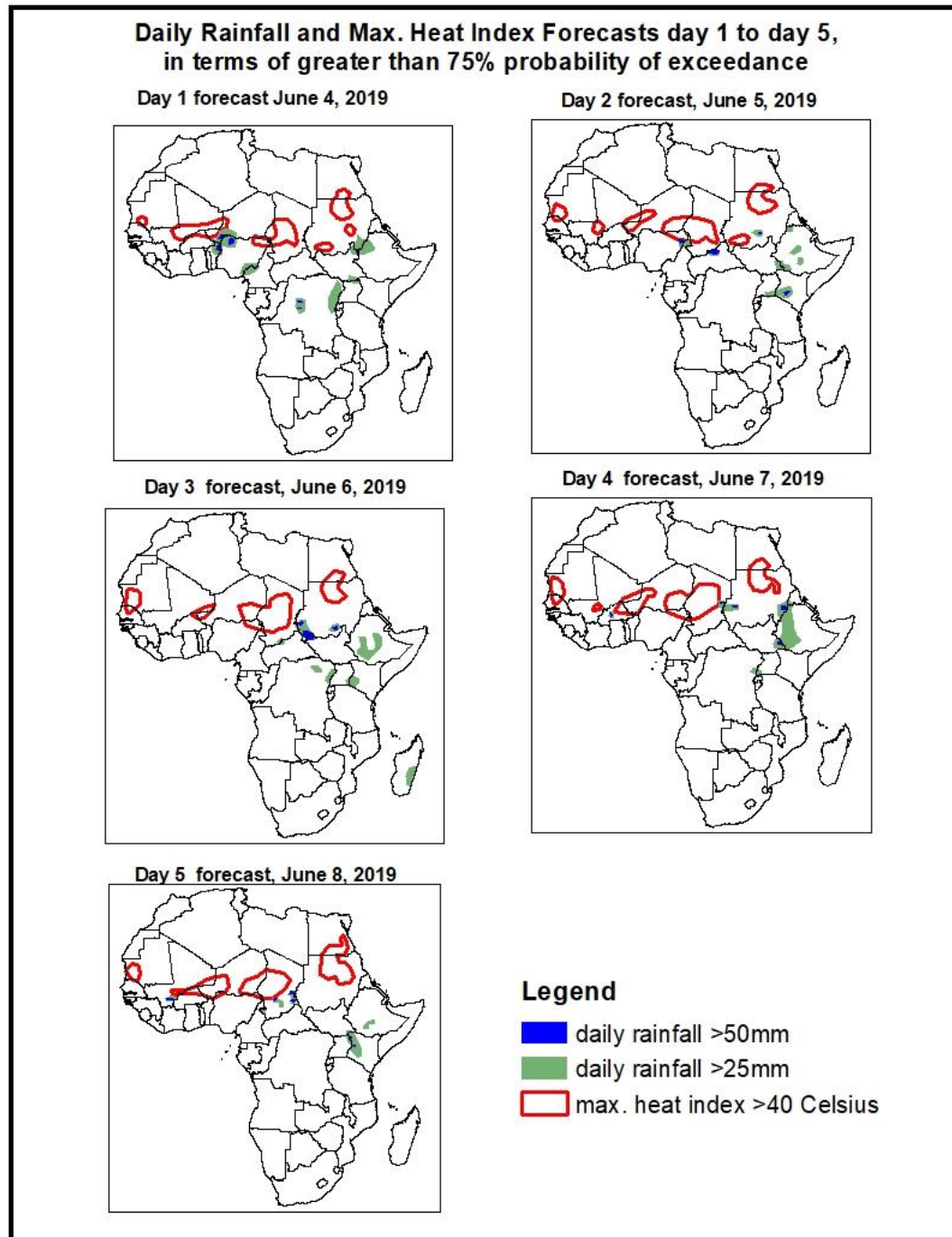


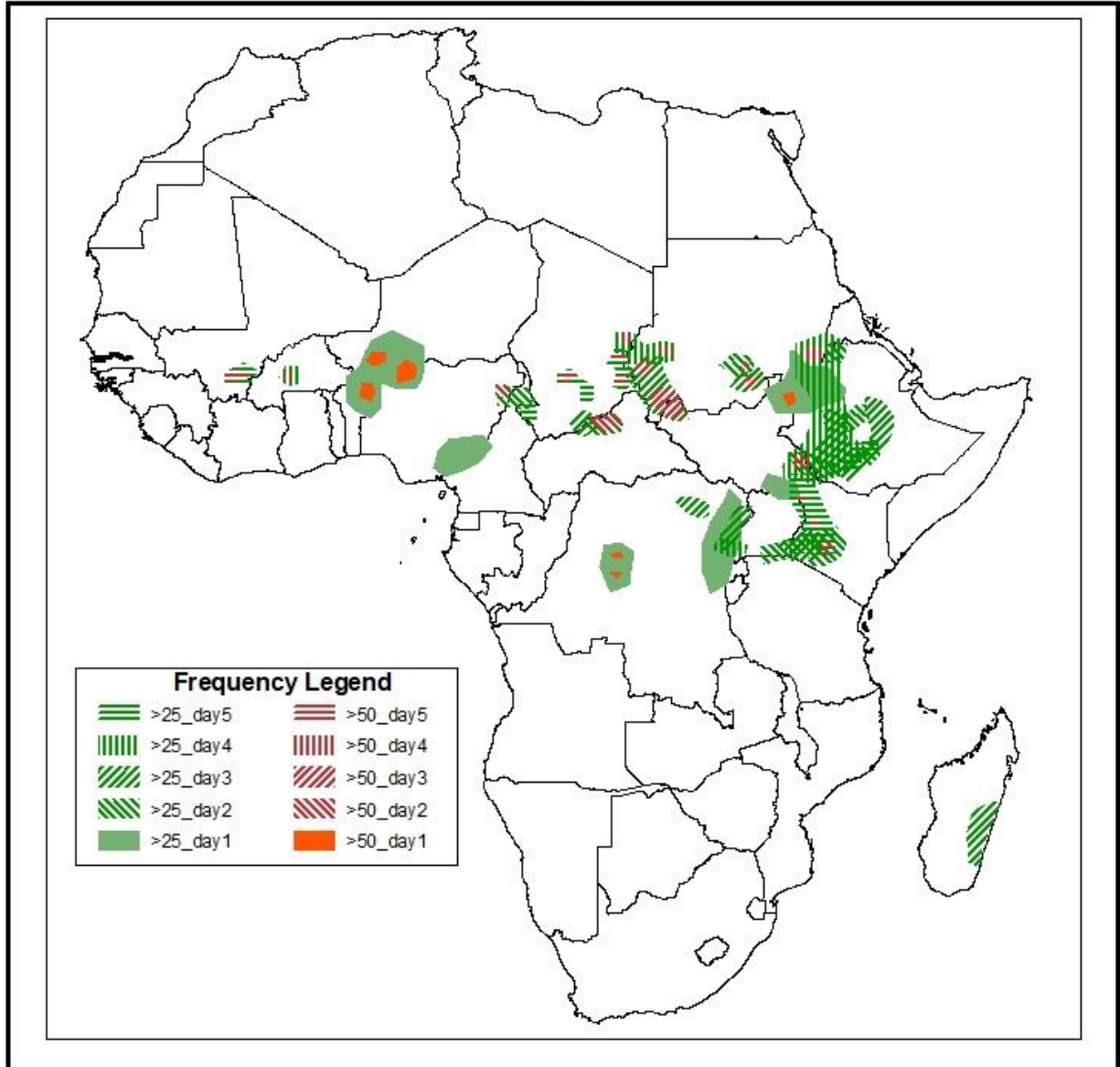
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on June 3, 2019)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 4 – 8 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 4 - 8 June, 2019

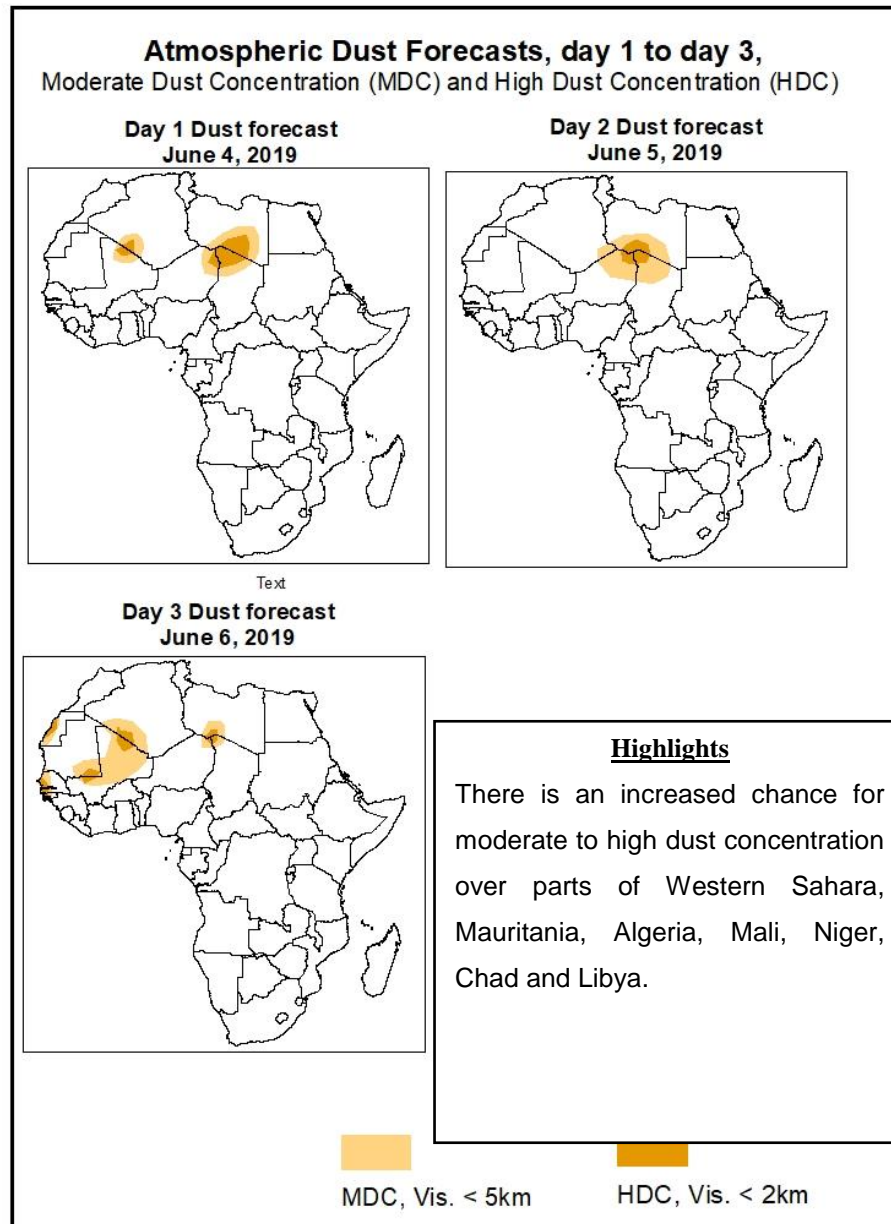


### Highlights

- The monsoon flow from the Atlantic Ocean with its associated lower-level convergence, and westward propagating lower-level cyclonic circulation is expected to enhance rainfall over portions of central and eastern Sahel.
- 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 some areas in eastern Sahel and the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over local areas in Niger, northwestern Nigeria, CAR, Chad, Sudan and South Sudan, Ethiopia and western Kenya.
- There is an increased chance for daily maximum heat index to exceed 40°C over portions of the Sahel region, Egypt and Sudan.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 4 – 6 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: 4 – 8 June, 2019**

The Azores High Pressure system over the Northeast Atlantic is expected to weaken slightly with its central pressure value decreasing from about 1032hpa to 1030hpa 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 1034hPa to 1026hPa during the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to weaken with its central pressure value decreasing from 1037hPa to 1032hPa during the forecast period.

At 925hPa level, strong dry northeasterly flow is expected to prevail across Northwest 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 over much of the Sahel region. A cyclonic circulation over Chad is expected to propagate westwards into Niger during the forecast period. Meridional wind convergence is expected to remain active in the Lake Victoria region during the forecast period.

At 700hPa, mainly northeasterly to easterly wind pattern is expected to be maintained, across central Africa and the Gulf of Guinea. A deep cyclonic circulation in the Arabian Sea is expected to propagate into the Arabian Peninsula towards end of the forecast period.

The monsoon flow from the Atlantic Ocean with its associated lower-level convergence, and westward propagating lower-level cyclonic circulation is expected to enhance rainfall over portions of central and eastern Sahel. 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 some areas in eastern Sahel and the Greater Horn of Africa. There is an increased chance for daily rainfall to exceed 50mm over local areas in Niger, northwestern Nigeria, CAR, Chad, Sudan and South Sudan, Ethiopia and western Kenya. There is an

increased chance for daily maximum heat index to exceed 40oC over portions of the Sahel region, Egypt and Sudan.

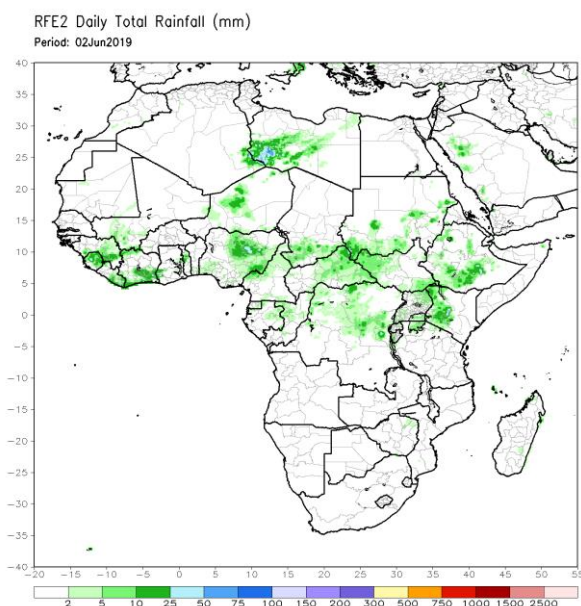
## 2.0. Previous and Current Day Weather over Africa

### 2.1. *Weather assessment for the previous day* (June 2, 2019)

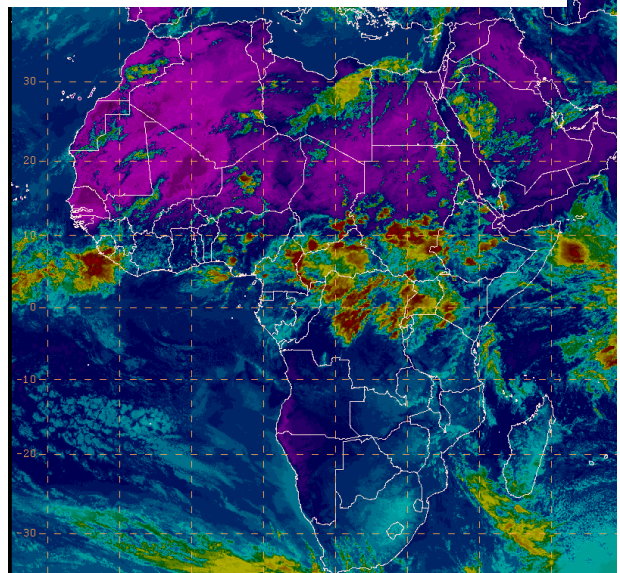
Daily rainfall amount exceeded 25mm over southwestern Libya, and local areas in Nigeria and Kenya.

### 2.2. *Weather assessment for the current day* (June 3, 2019)

Deep convective clouds are observed over many places in central and eastern Africa. An area of deep convection is also observed off the coast of the Greater Horn of Africa.



IR Satellite Image (valid 1552 June 3, 2019)



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