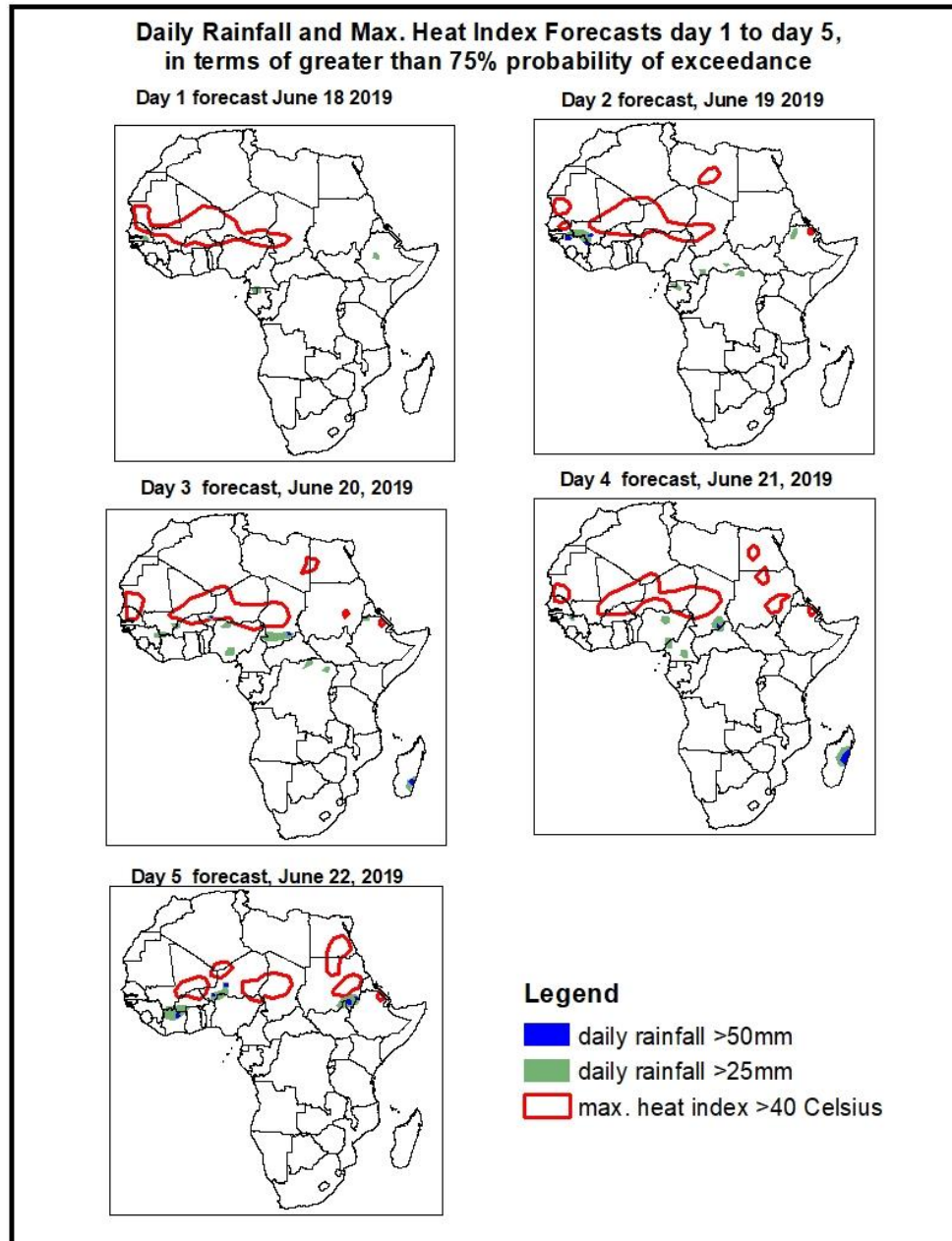


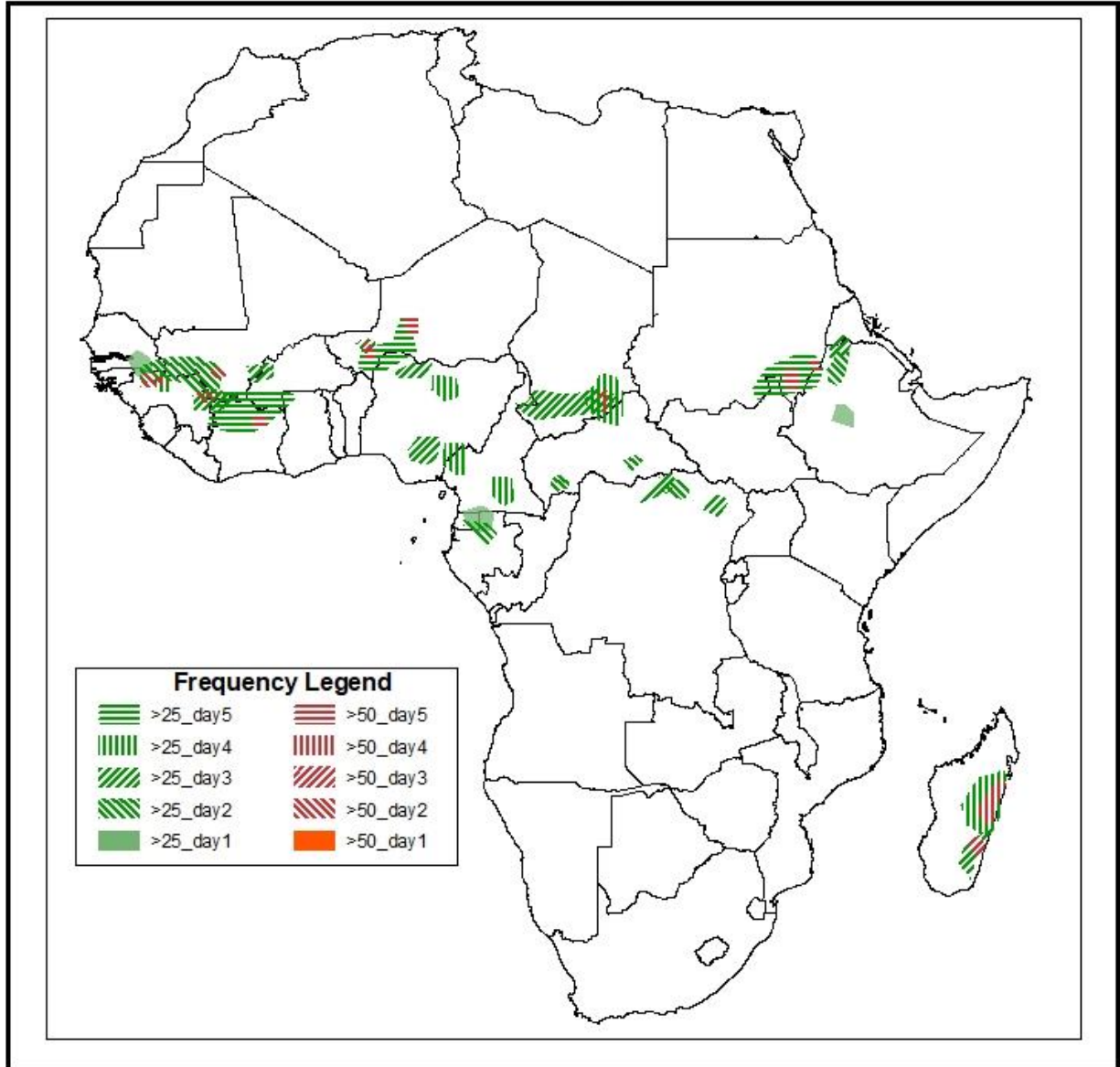
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on June 17, 2019)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 18 – 22 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 18 - 22 June, 2019

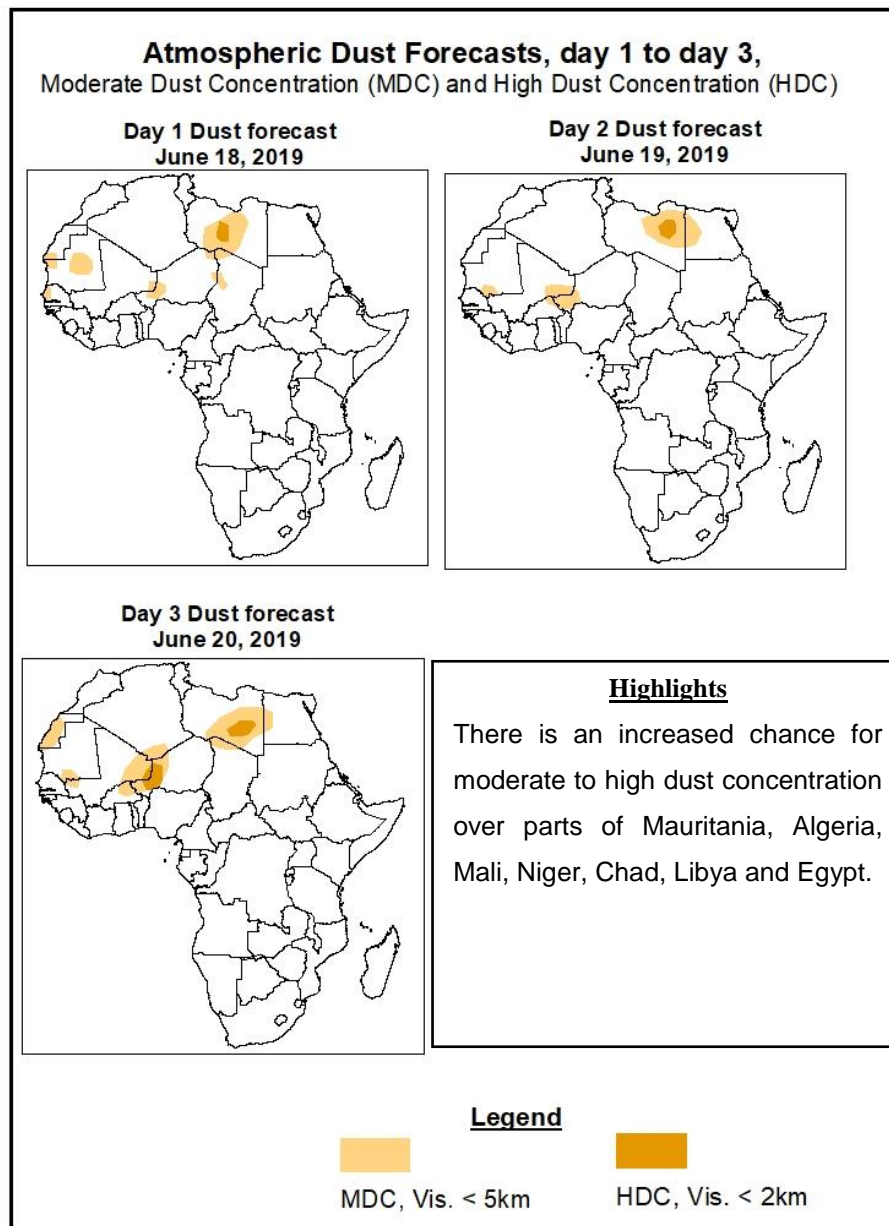


Highlights

- 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 Niger, Chad, Sudan, and Madagascar.
- There is an increased chance for daily maximum heat index to exceed 40°C over portions of the Sahel region, Egypt, Sudan, and local areas in Northeast Ethiopia.

1.2. Atmospheric Dust Concentration Forecasts (valid: 18 – 20 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: 18 – 22 June, 2019

The Azores High Pressure system over the Northeast Atlantic is expected to strengthen with its central pressure value increasing from about 1022hpa to 1026hpa 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 1028hPa to 1039hPa during the forecast hours.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to strengthen with its central pressure value decreasing from 1036hPa to 1040hPa during the forecast period.

At 925-hPa 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 850-hPa, lower-level wind convergences are expected to remain active over portions of the Sahel the Lake Victoria regions. A cyclonic circulation over Sudan is expected to propagate westward into Chad.

At 700-hPa, strong easterly flow (>30kts) is expected to prevail across portions of the Gulf of Guinea region through 72 hours.

At 500-hpa, 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 Niger, Chad, Sudan, and Madagascar. There is an increased chance for daily maximum heat index to exceed 40°C over portions of the Sahel region, Egypt, Sudan, and local areas in Northeast Ethiopia.

2.0. Previous and Current Day Weather over Africa

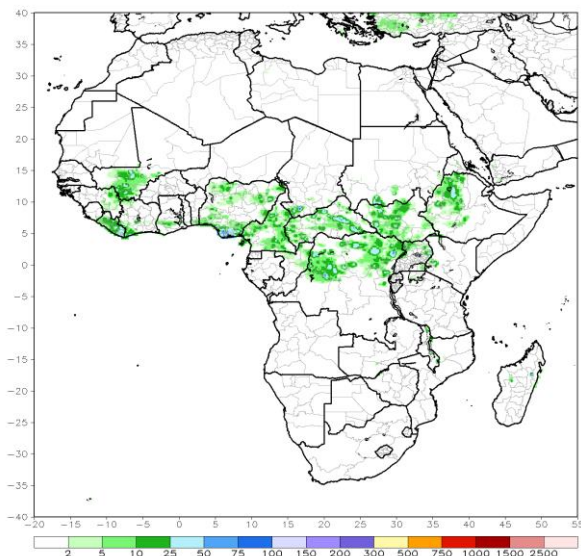
2.1. *Weather assessment for the previous day* (June 16, 2019)

Daily rainfall amount exceeded 25mm over southeastern Nigeria, northern DRC, and local areas in CAR, South Sudan and Ethiopia.

2.2. *Weather assessment for the current day* (June 17, 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.

RFE2 Daily Total Rainfall (mm)
Period: 15Jun2019



IR Satellite Image (valid 1432 June 17, 2019)

