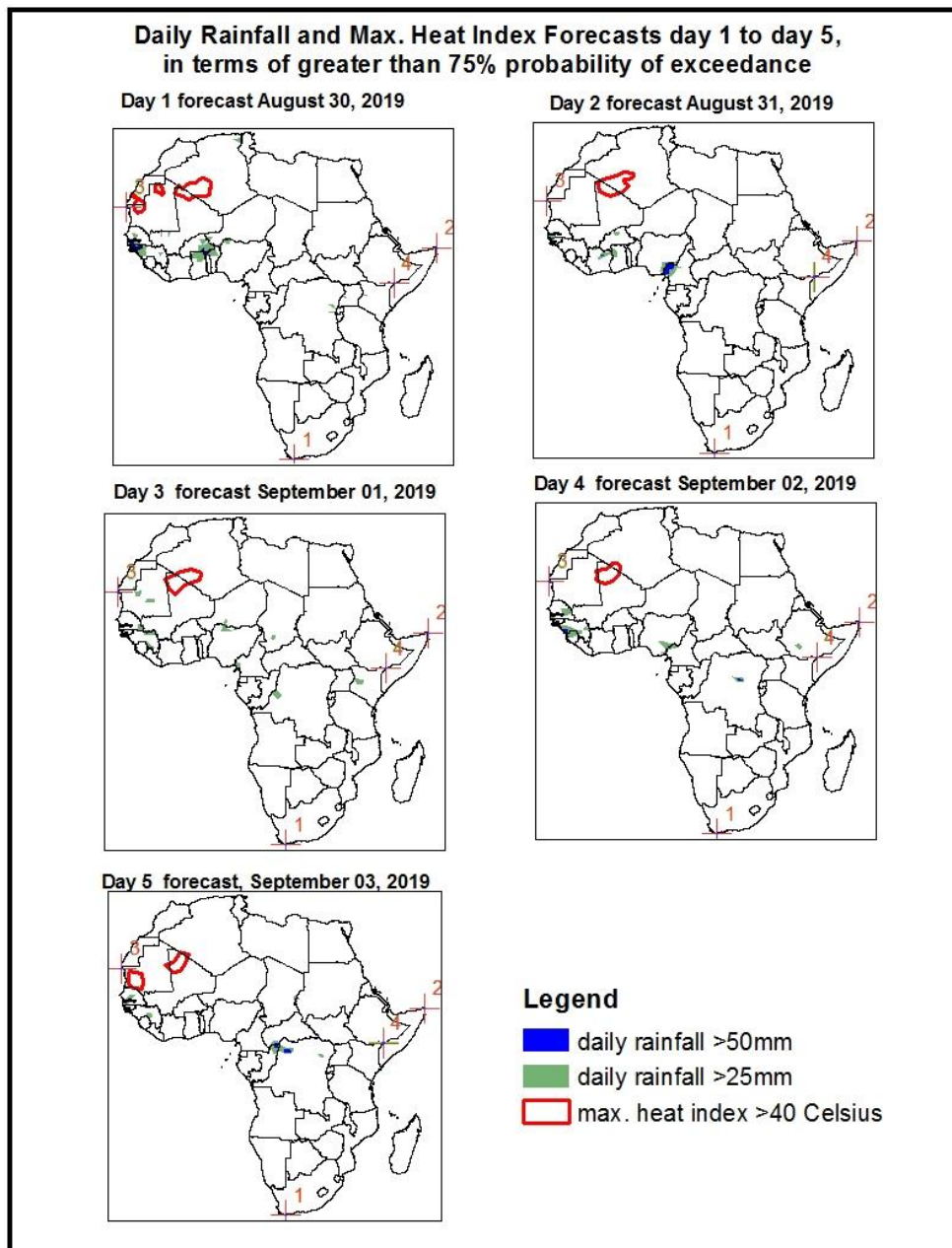


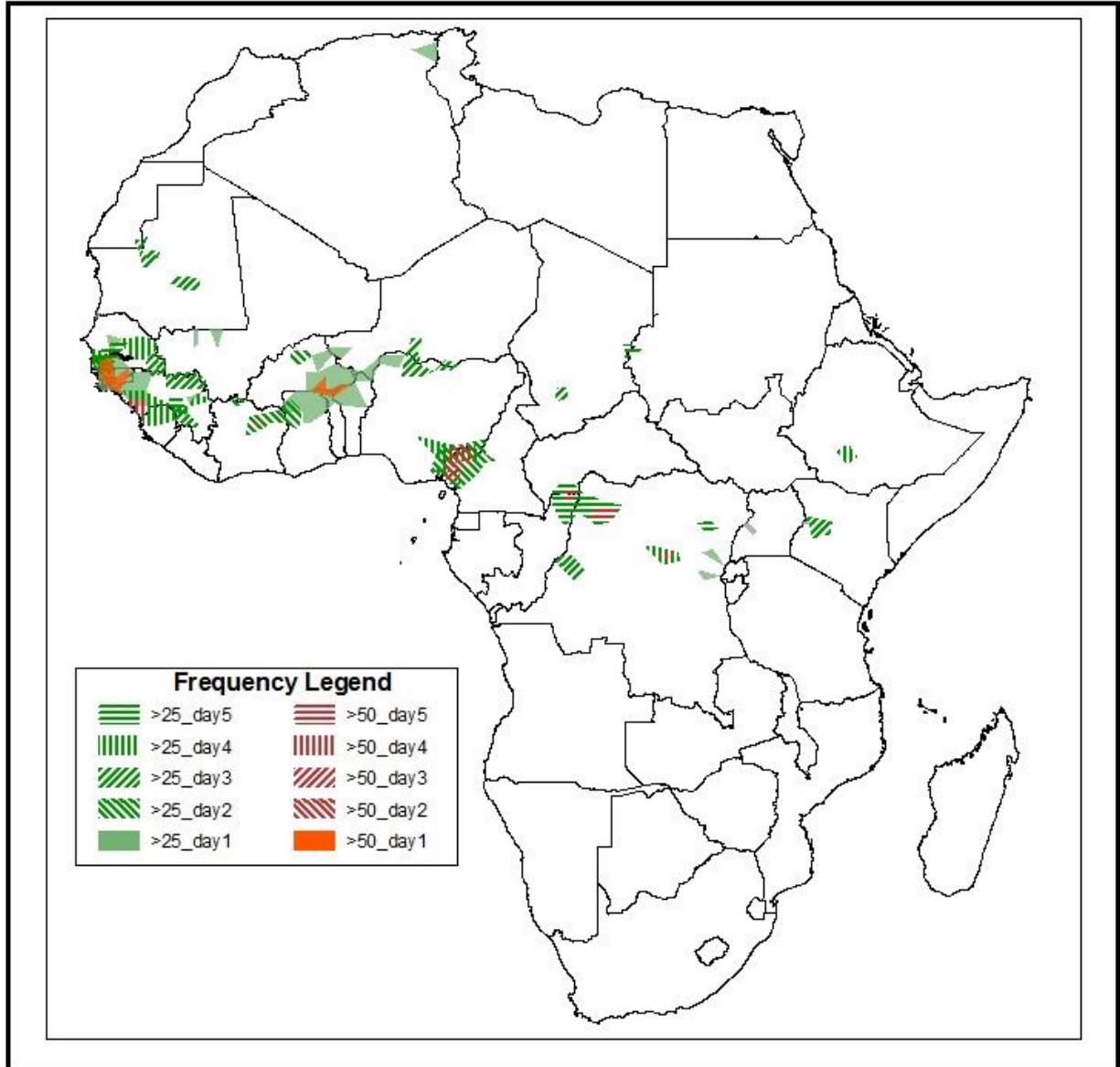
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on August 29, 2019)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 30 – 03 September, 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 30 August - 03 September, 2019

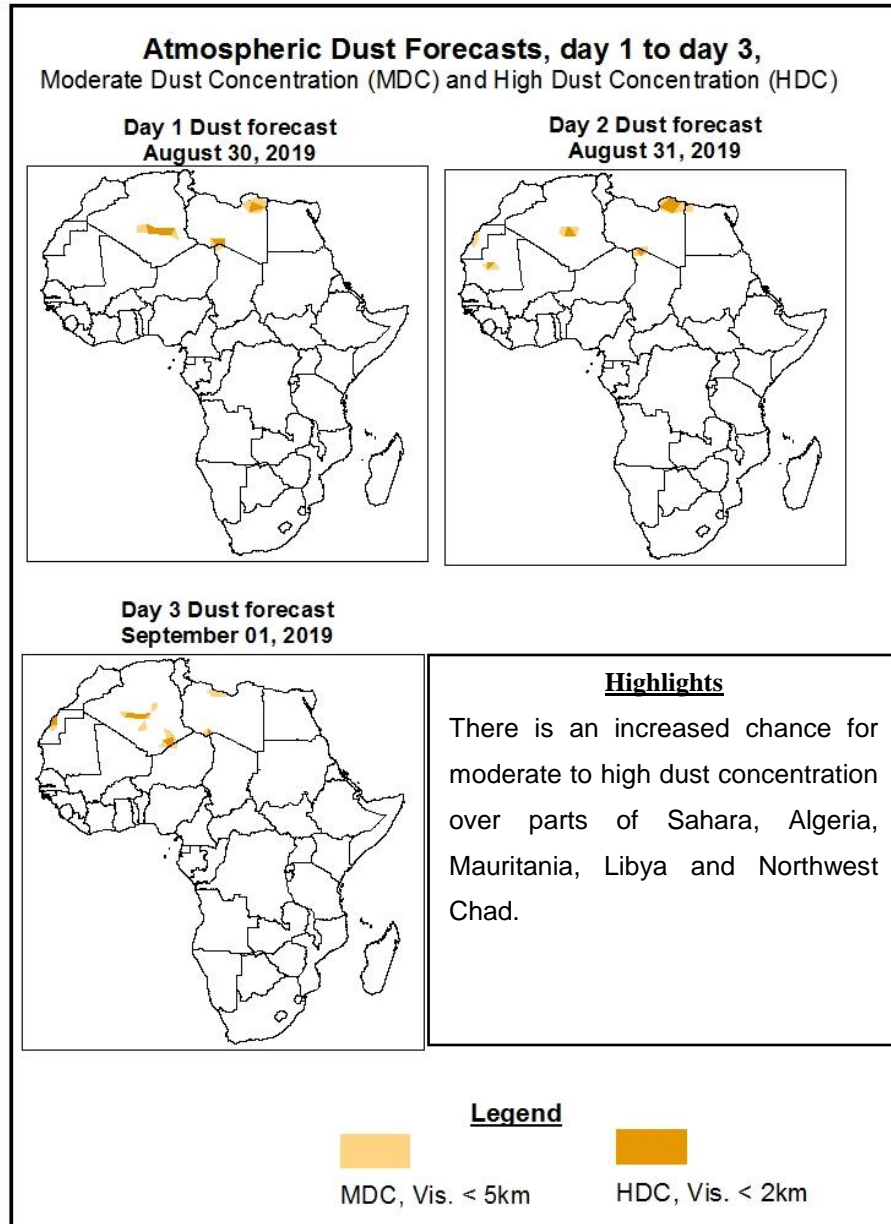


### Highlights

- 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 Western Africa, portions of the Sahel, Central Africa countries.
- 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 West Africa and Sahel region. There is an increased chance for daily rainfall to exceed 50mm over southwestern Guinea, Southwestern Senegal, Guinea Bissau, Gambia, Southeastern Burkina Faso, Southeastern Nigeria and Northeastern DRC.
- There is an increased chance for daily maximum heat index to exceed 40°C over Western Sahara, Algeria, Mali and Mauritania.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 30 Aug – 01 Sept 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: 30 August – 03 September 2019**

The Azores High Pressure system over the Northeast Atlantic is expected to strengthen and while shifting to the North, with its central pressure value increasing from 1024hPa to 1030hPa

The St. Helena High Pressure system over Southeast Atlantic Ocean is expected to weaken with its central pressure value decreasing from 1033hPa to 1028hPa during the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to maintain an average central pressure value of 1026hPa during the forecast period.

Thermal low across the far western Sahel region is expected to deepen with its central pressure value decreasing from 1011 to 1006hPa during of forecast period, while shifting to the East. The thermal low over Chad is also expected to deepen slightly with its central pressure decreasing from 1009hPa to 1008 hPa, while shifting to Niger during the forecast period.

At 925-hPa level, moist southwesterly flow from the Atlantic Ocean is expected to prevail across the Gulf of Guinea and covering much of West Africa and the Sahel regions, and the neighboring areas of Central Africa.

At 850-hPa, lower-level wind convergences are expected to strength in portions of West Africa, the Sahel and Lake Victoria regions. An area of cyclonic circulation over the far west Africa is expected to propagate westward into the Cape Verde Islands, during the forecast period.

At 700-hPa, a broad area of anticyclonic flow is expected over Northwest Africa and a trough in the easterly flow near Nigeria is expected to move westwards across West Africa through the end of forecast period.

At 500-hpa, wind speed associated with easterly flow is expected to exceed 30kts across Senegal and Cape Verde Islands and North 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 Western Africa, portions of the Sahel, Central Africa countries. 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 West Africa and Sahel region. There is an increased chance for daily rainfall to exceed 50mm over southwestern Guinea, Southwestern Senegal, Guinea Bissau, Gambia, Southeastern Burkina Faso, Southeastern Nigeria and Northeastern DRC. There is an increased chance for daily maximum heat index to exceed 40°C over Western Sahara, Algeria, Mali and Mauritania.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. *Weather assessment for the previous day* (August 27, 2019)

Daily rainfall amount exceeded 25mm over Southern Guinea, Northern Cote D'Ivoire and Chad, and exceeded 50mm over Southern Guinea, Northwestern Cote D'Ivoire and Eastern Chad.

### 2.2. *Weather assessment for the current day* (August 28, 2019)

Deep convective clouds are observed over West Africa, Central Africa and local areas in the Greater Horn of Africa.

