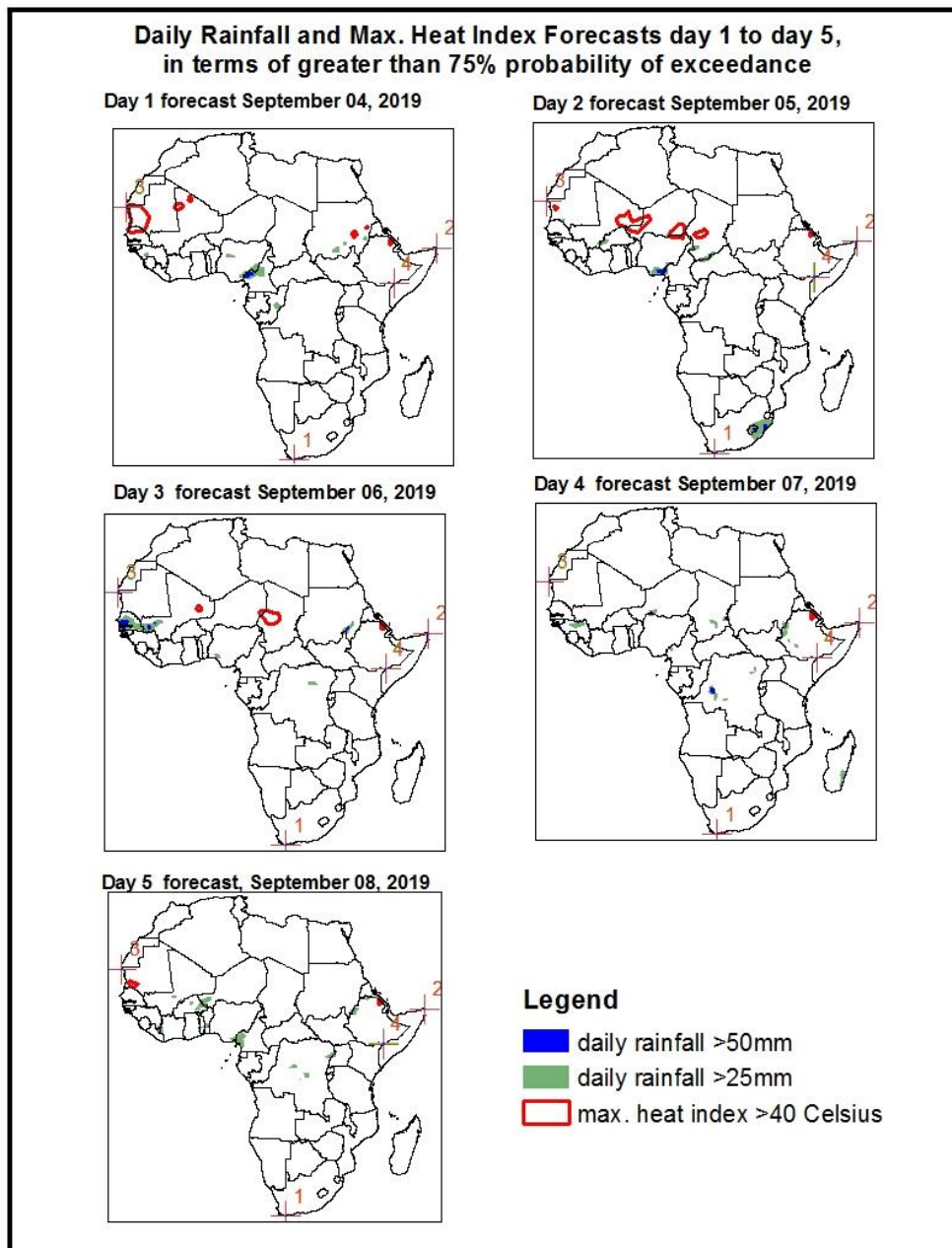


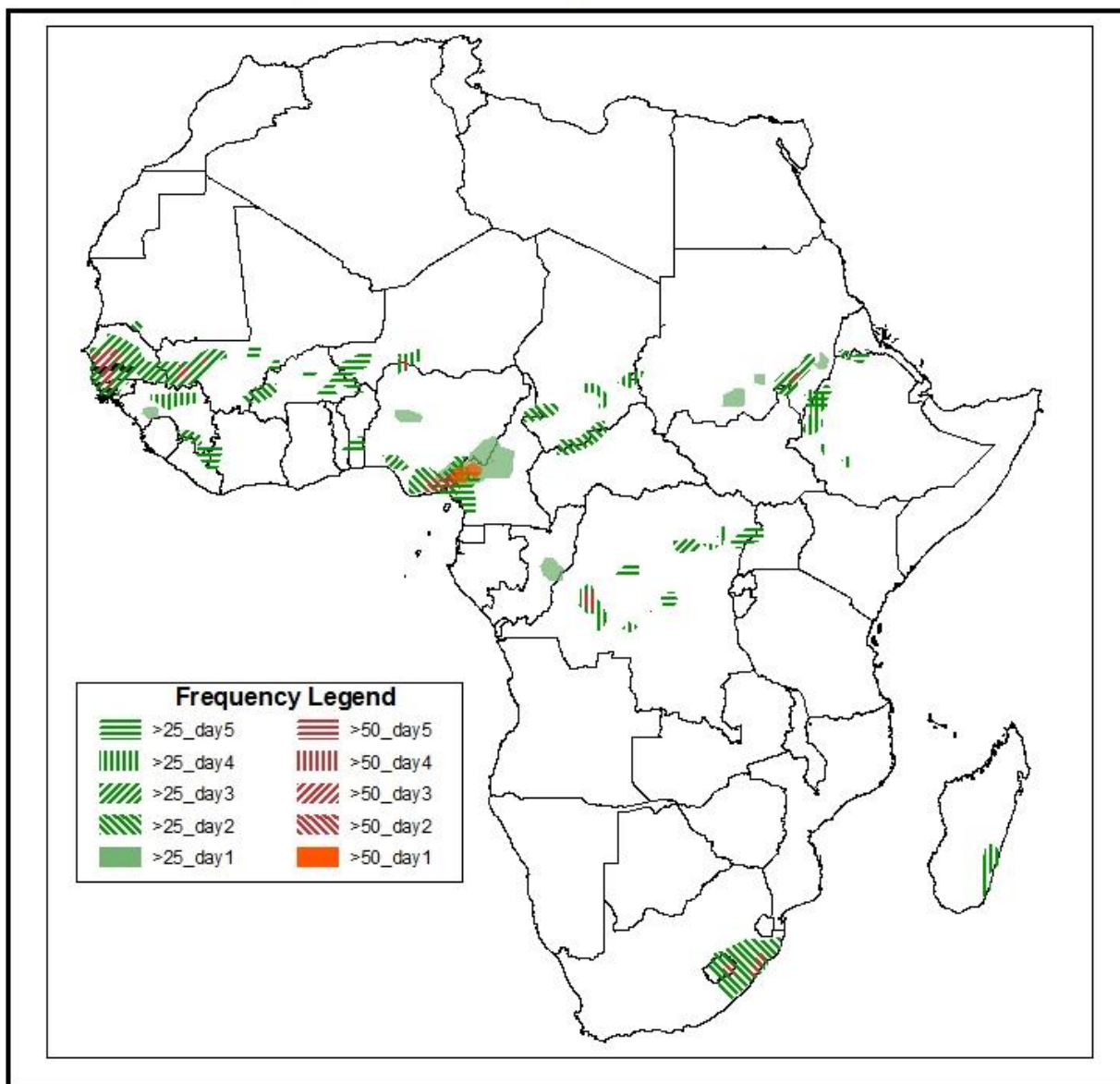
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on September 03, 2019)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 04 – 08 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 September 04 - September 08, 2019

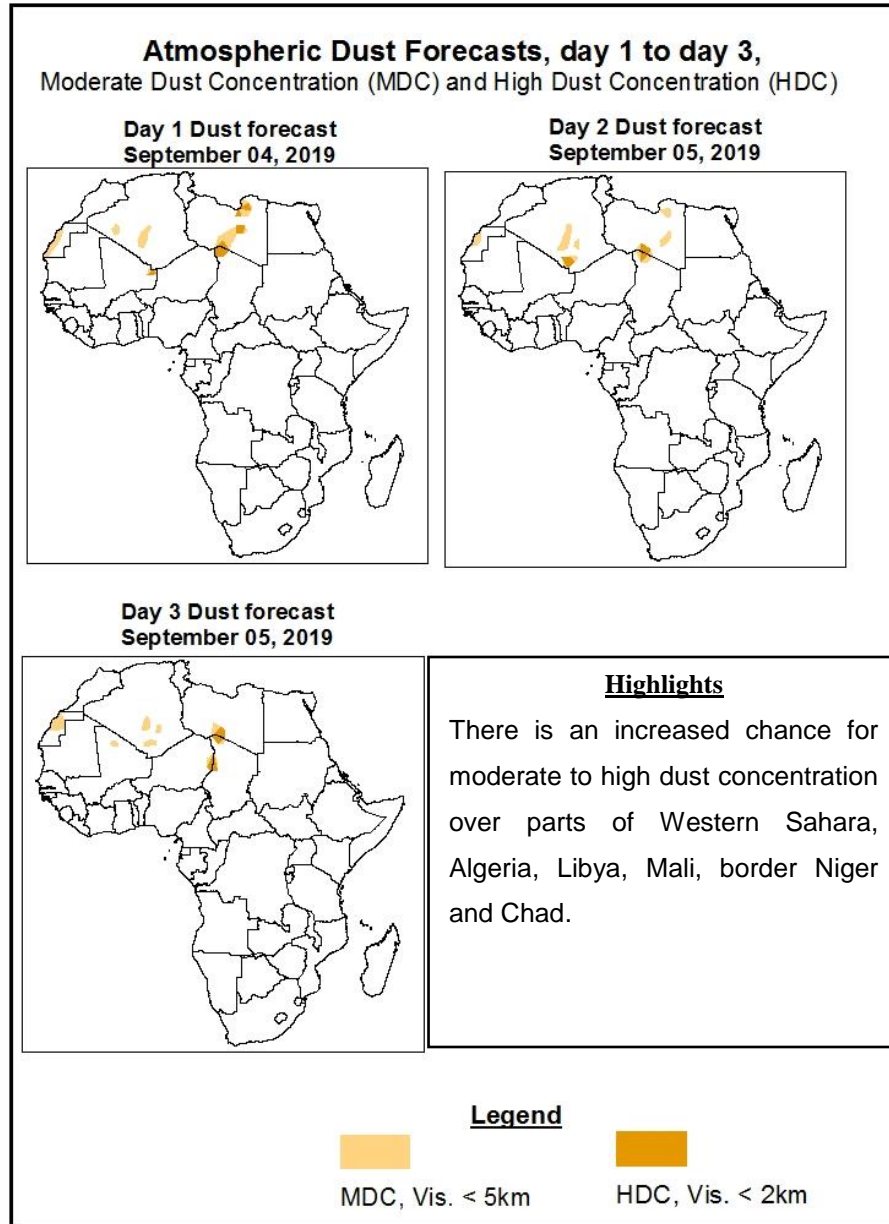


### Highlights

- 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, Eastern South Africa and Madagascar.
- At least 25mm for two or more days is likely over portions of West and Central Africa. There is an increased chance for daily rainfall to exceed 50mm over Senegal, Gambia, Southwestern Mali, Southeast Nigeria and Northwest Cameroon, Ethiopia, portion DRC, Lesotho and South Africa.
- There is an increased chance for daily maximum heat index to exceed 40°C over Western Sahara, Mali, Mauritania, Niger, Chad and Ethiopia.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 04 Sept – 06 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: 04 September – 08 September 2019**

The Azores High Pressure system over the Northeast Atlantic is expected to Weaken with its central pressure value decreasing from 1039hPa to 1031hPa 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 1031hPa to 1021hPa during the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to strengthen with its central pressure value increasing from 1026 hPa to 1043 hPa during the forecast period.

Thermal low across the Sahel region is expected to deepen with its central pressure value decreasing from 1009 to 1006hPa during of 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 remain active over portions of the Sahel and Lake Victoria regions. A cyclonic circulation over far western Africa is expected to shift westward during the forecast period.

At 700-hPa, a broad area of anticyclonic flow is expected to prevail and intensify across much of Northwest and West Africa during the forecast period.

At 500-hpa, wind speed associated with easterly flow is expected to exceed 30kts across the Sahel, Northern Africa and the Greater Horn of 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, Eastern South Africa and Madagascar. At least 25mm for two or more days is likely over portions of West and Central Africa. There is an increased chance for daily rainfall to exceed 50mm over Senegal, Gambia, Southwestern Mali, Southeast Nigeria and Northwest Cameroon, Ethiopia, portion DRC, Lesotho and South Africa. There is an increased chance for daily maximum heat index to exceed 40°C over Western Sahara, Mali, Mauritania, Niger, Chad and Ethiopia.

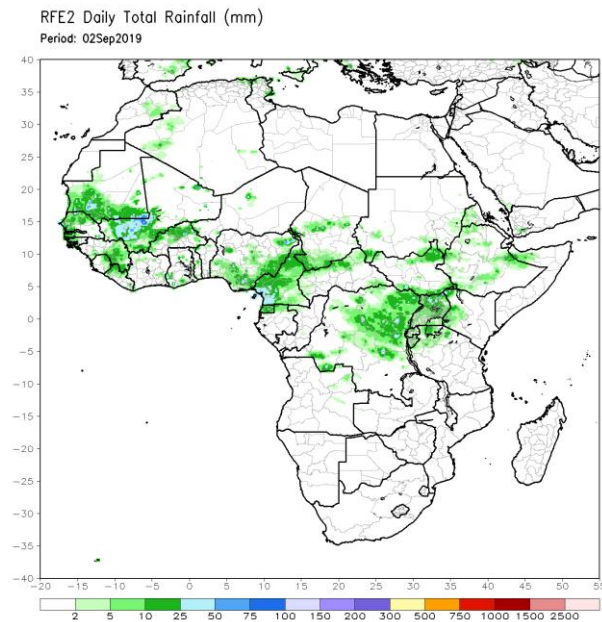
## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (Sept 02, 2019)

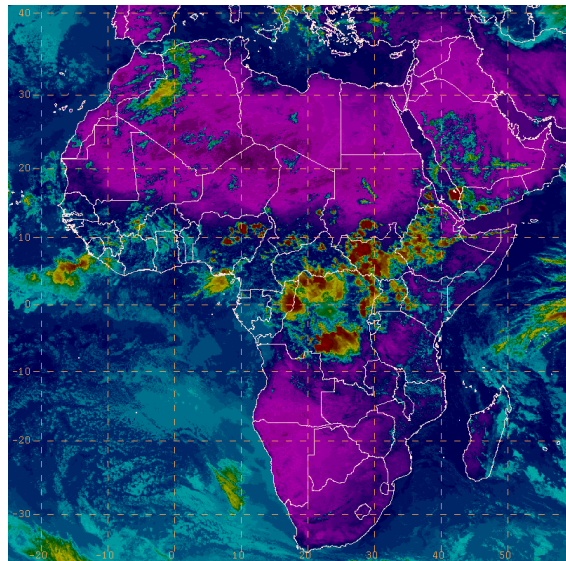
Daily rainfall amount exceeded 25mm over Senegal, Mali, Nigeria and Cameroon, and exceeded 50mm over portions of Senegal and Mali.

### 2.2. Weather assessment for the current day (Sept 03, 2019)

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



IR Satellite Image (valid 1352 September 03, 2019)



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