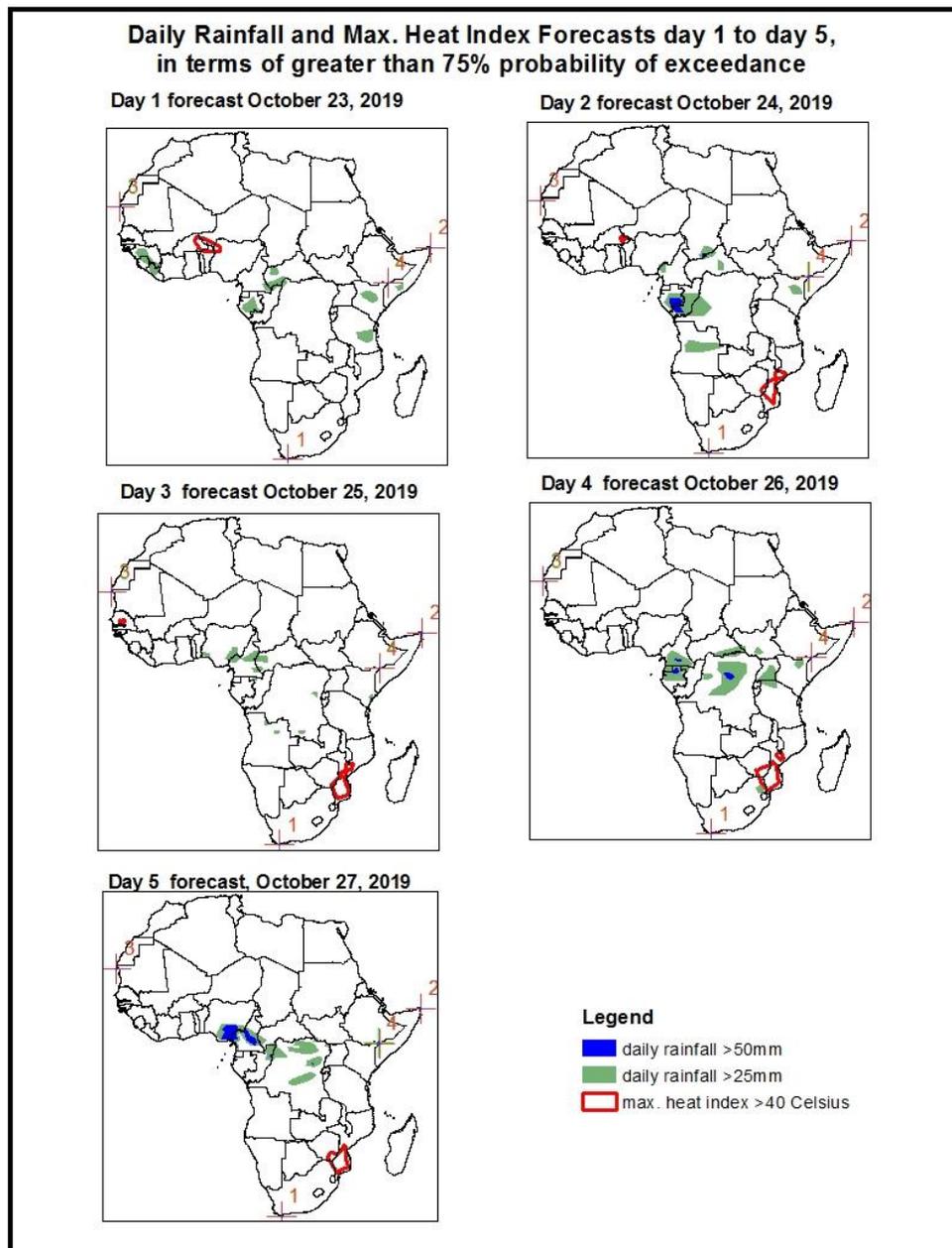


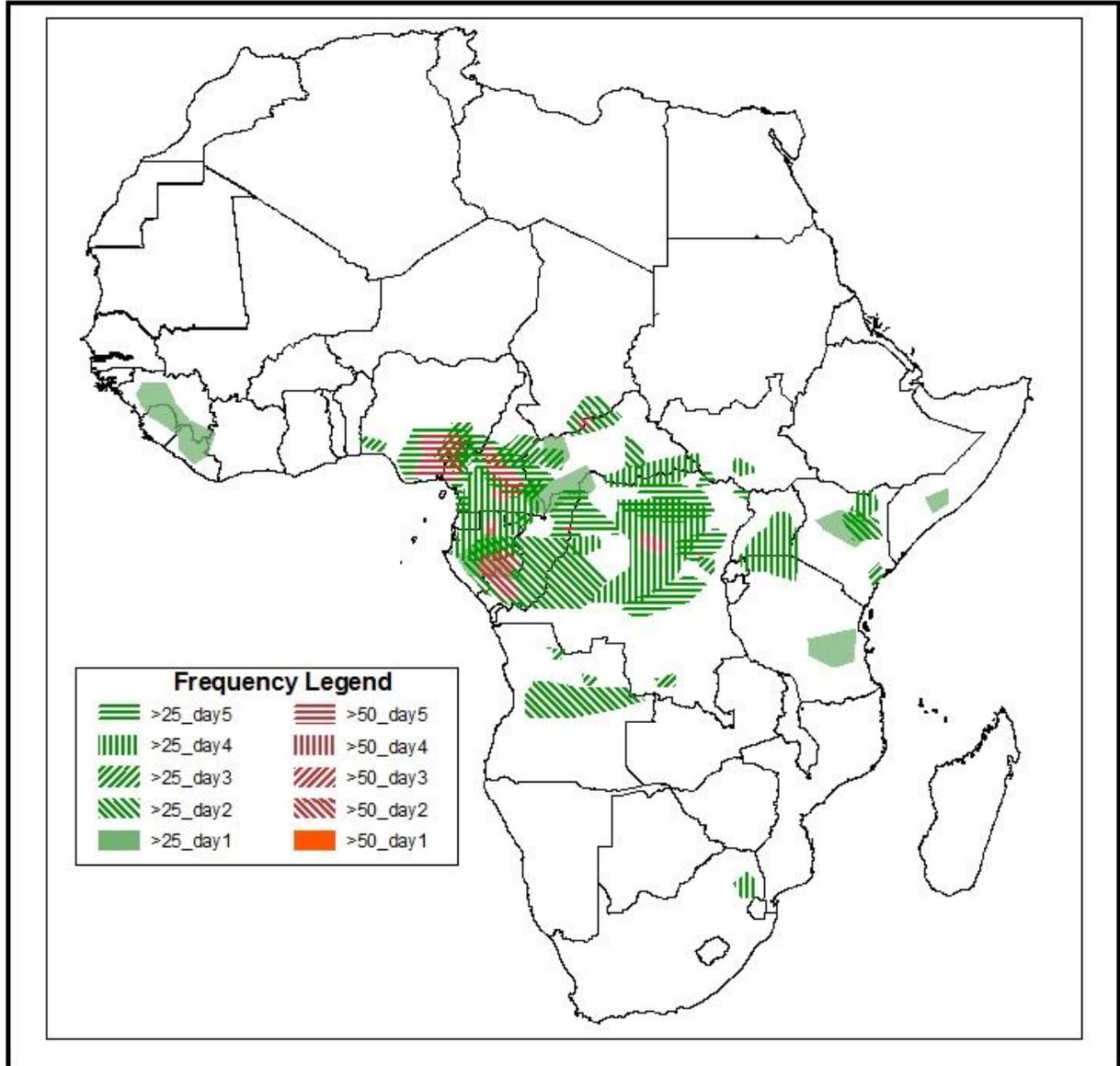
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on October 22, 2019)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 23 October – 27 October, 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 October 23 - October 27, 2019

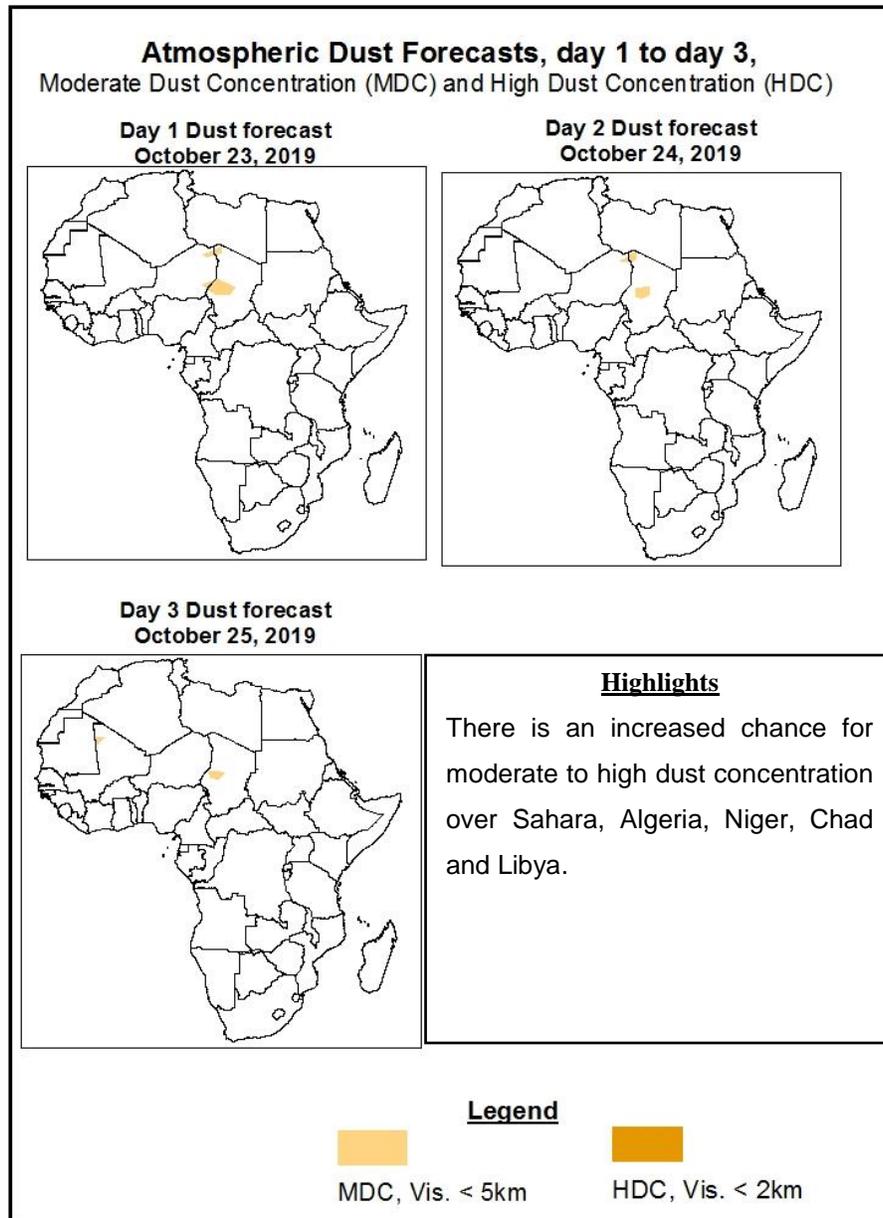


### Highlights

- The monsoon flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over eastern Gulf of Guinea and Central Africa countries. Onshore flow from the Indian Ocean with its associated lower-level convergence is also expected to enhance rainfall over parts of East Africa.
- At least 25mm for two or more days is likely over portions of southern Nigeria, Cameroon, DRC, Republic of Congo, CAR, southern Chad, Uganda, northern Tanzania, Kenya, southern South Sudan, northeastern South Africa and Angola.
- There is an increased chance for daily rainfall to exceed 50mm over DRC, Chad, Nigeria, Cameroon, Gabon and Republic of Congo.
- There is an increased chance for daily maximum heat index to exceed 40°C over Niger, Nigeria, Burkina Faso, Benin, Senegal, Mozambique and Zimbabwe.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 23 Oct – 25 Oct 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: 23 October –27October 2019**

The Azores High Pressure system over the Northeast Atlantic is expected to weaken with its central pressure value decreasing from 1032hPa to 1022hPa during the forecast period.

The St. Helena High Pressure system over Southeast Atlantic Ocean expected to weaken while shifting eastward and across western part of Namibia and South Africa, with its central pressure value decreases from 1026hPa to 1022hPa during the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to strengthen with its central pressure value increasing from 1022hPa to 1026hPa during the first three days of the forecast period. Then, remain constant during the last days of forecast period.

Thermal low across the Sahel region is expected to slightly deepen with its central pressure value decreasing from 1009hPa to 1007hPa while shifting westward 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 the southern Sahel regions, the neighboring areas of Central Africa. On the other hand, southeasterly flow from the Indian Ocean is expected to prevail across the eastern part of Great Horn of Africa and eastern coast South Africa regions.

At 850-hPa, meridional wind convergence is expected to remain active in the Lake Victoria region and the neighboring areas of Central Africa, over DRC, Republic of Congo, northern Cameroon, southern Nigeria and CAR during the forecast period. Converging winds over East Africa (Tanzania, Kenya, Uganda, South Sudan, Somali and Ethiopia) are likely to maintain occasional enhanced to moderate precipitation over these areas.

At 700-hPa, a broad area of anticyclonic circulation is expect to remain while shifting westward over Northwestern Africa. Mainly easterly flow is expected to continue steer convective activities over central Africa regions. Meridional wind divergence is expected to

remain active over southern Nigeria, Cameroon, Tanzania, Kenya, Mozambique, south Sudan and Ethiopia; this is likely to be advecting convective activities.

The monsoon flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over eastern Gulf of Guinea and Central Africa countries. Onshore flow from the Indian Ocean with its associated lower-level convergence is also expected to enhance rainfall over parts of East Africa. At least 25mm for two or more days is likely over portions of southern Nigeria, Cameroon, DRC, Republic of Congo, CAR, southern Chad, Uganda, northern Tanzania, Kenya, southern South Sudan, northeastern South Africa and Angola. There is an increased chance for daily rainfall to exceed 50mm over DRC, Chad, Nigeria, Cameroon, Gabon and Republic of Congo. There is an increased chance for daily maximum heat index to exceed 40°C over Niger, Nigeria, Burkina Faso, Benin, Senegal, Mozambique and Zimbabwe.

## 2.0. Previous and Current Day Weather over Africa

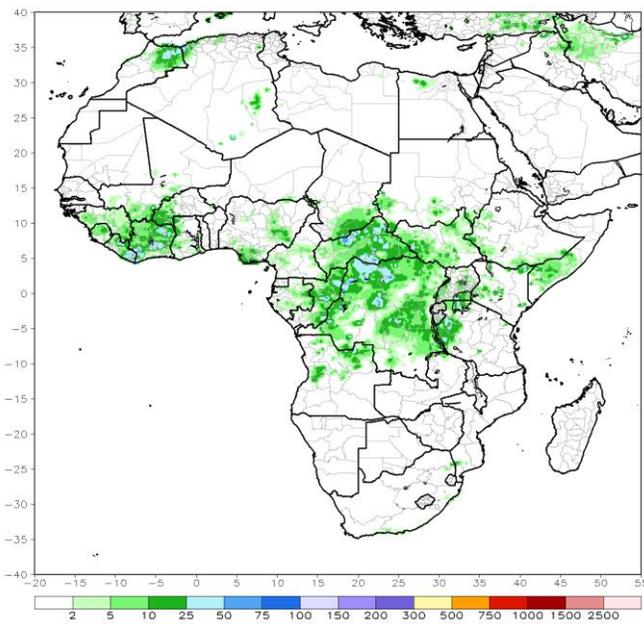
### 2.1. Weather assessment for the previous day (Oct 21, 2019)

Daily rainfall amount exceeded 25mm over Morocco, Cote D'Ivoire, Liberia, CAR, Republic of Congo, DRC, Tanzania and Uganda; and exceeded 50mm over CAR and DRC.

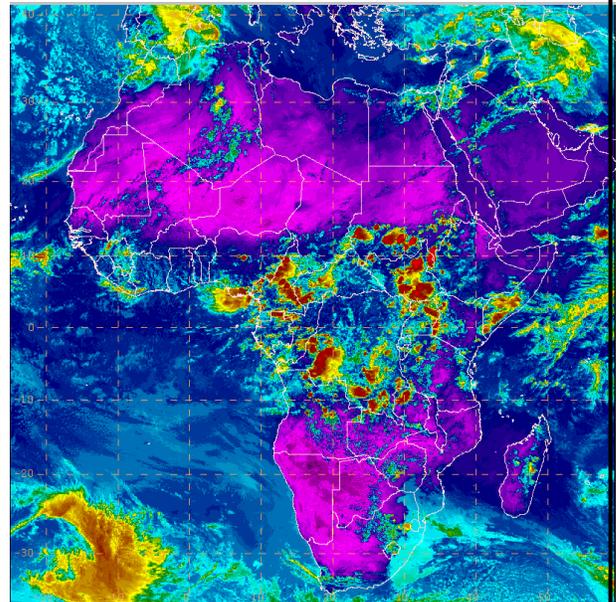
### 2.2. Weather assessment for the current day (Oct 22, 2019)

Deep convective clouds are observed over portions of West Africa, Central Africa and eastern Africa.

RFE2 Daily Total Rainfall (mm)  
Period: 21Oct2019



IR Satellite Image (valid 1352 October 22, 2019)



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