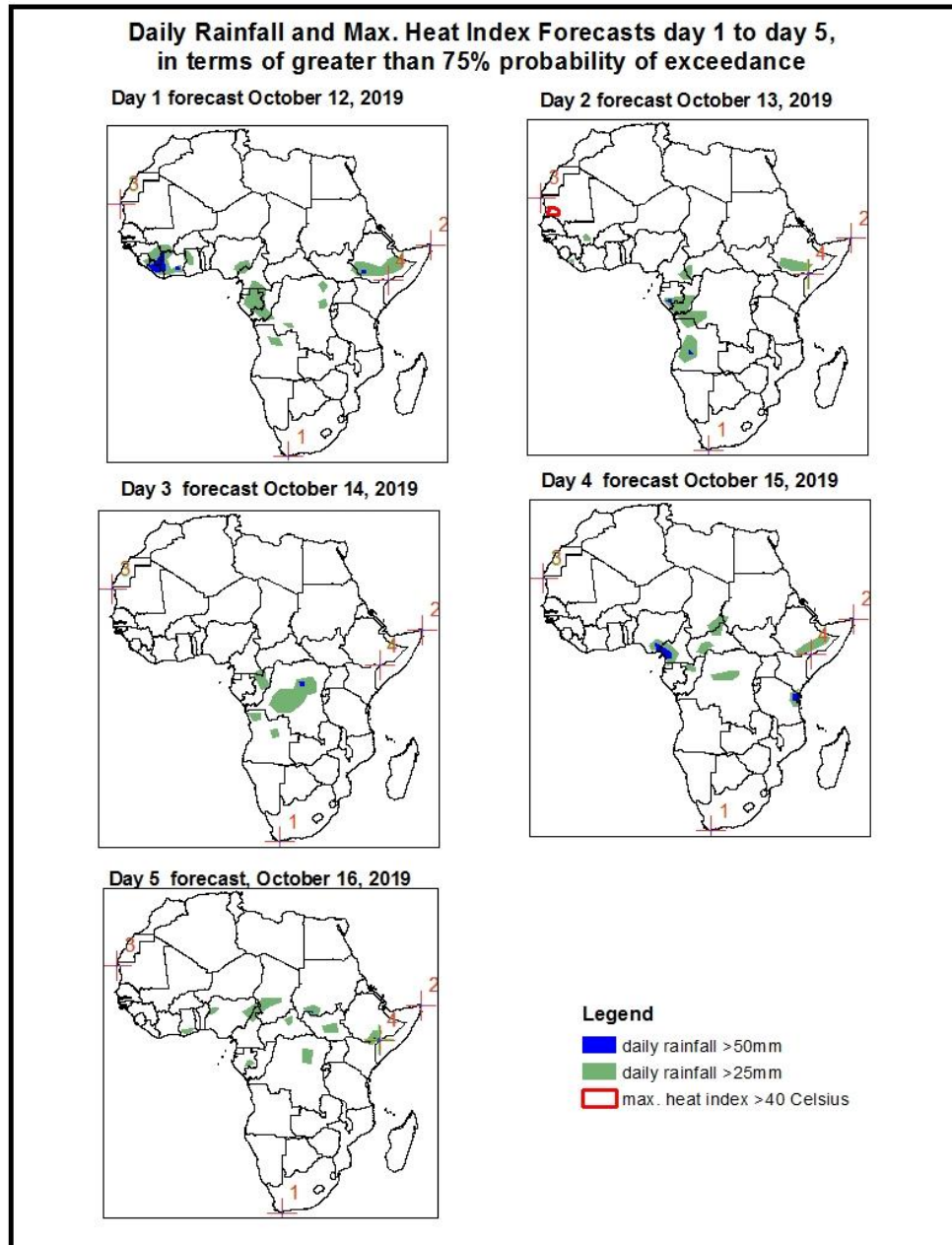


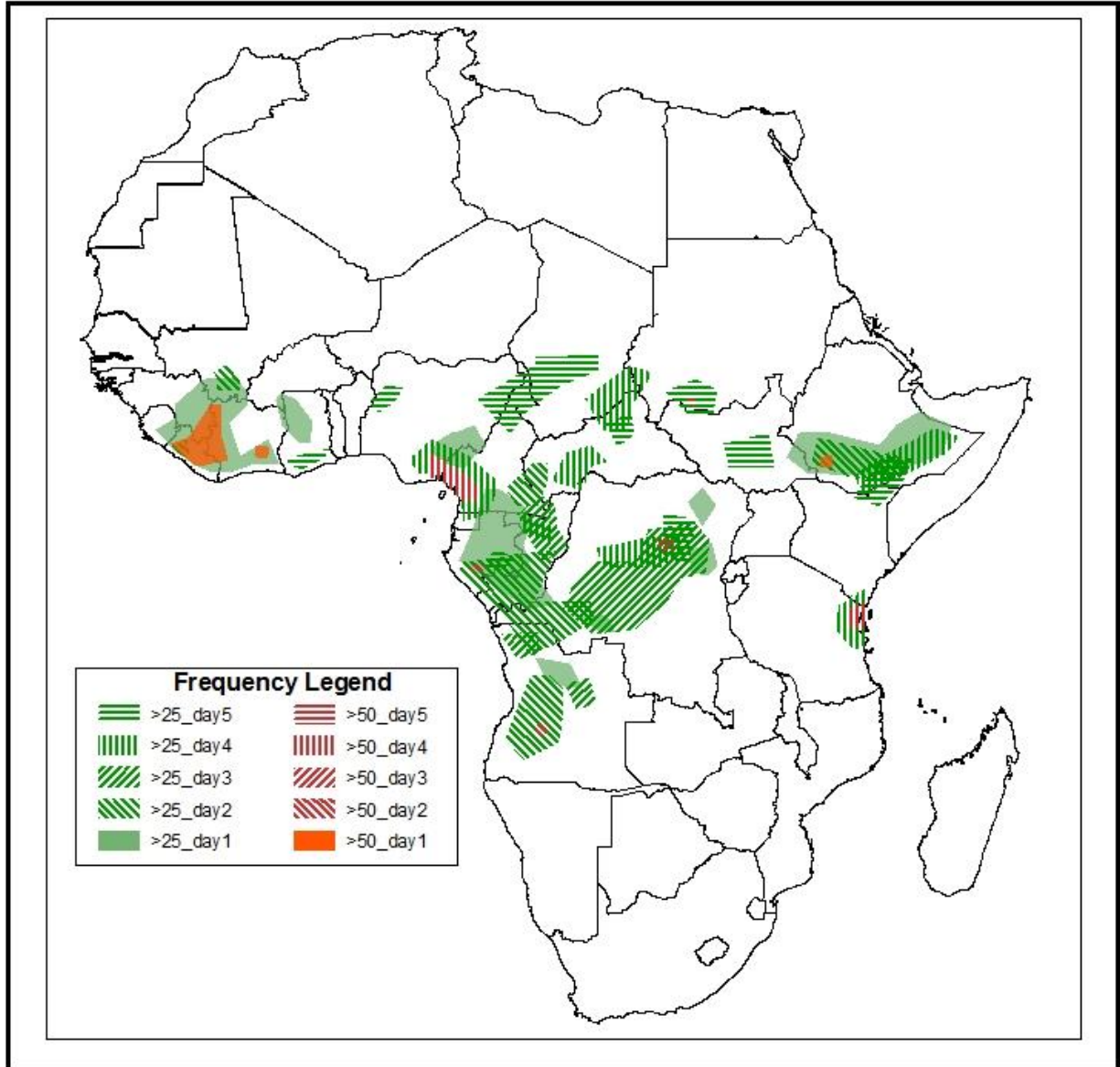
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on October 11, 2019)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 12 October – 16 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 12 - October 16, 2019

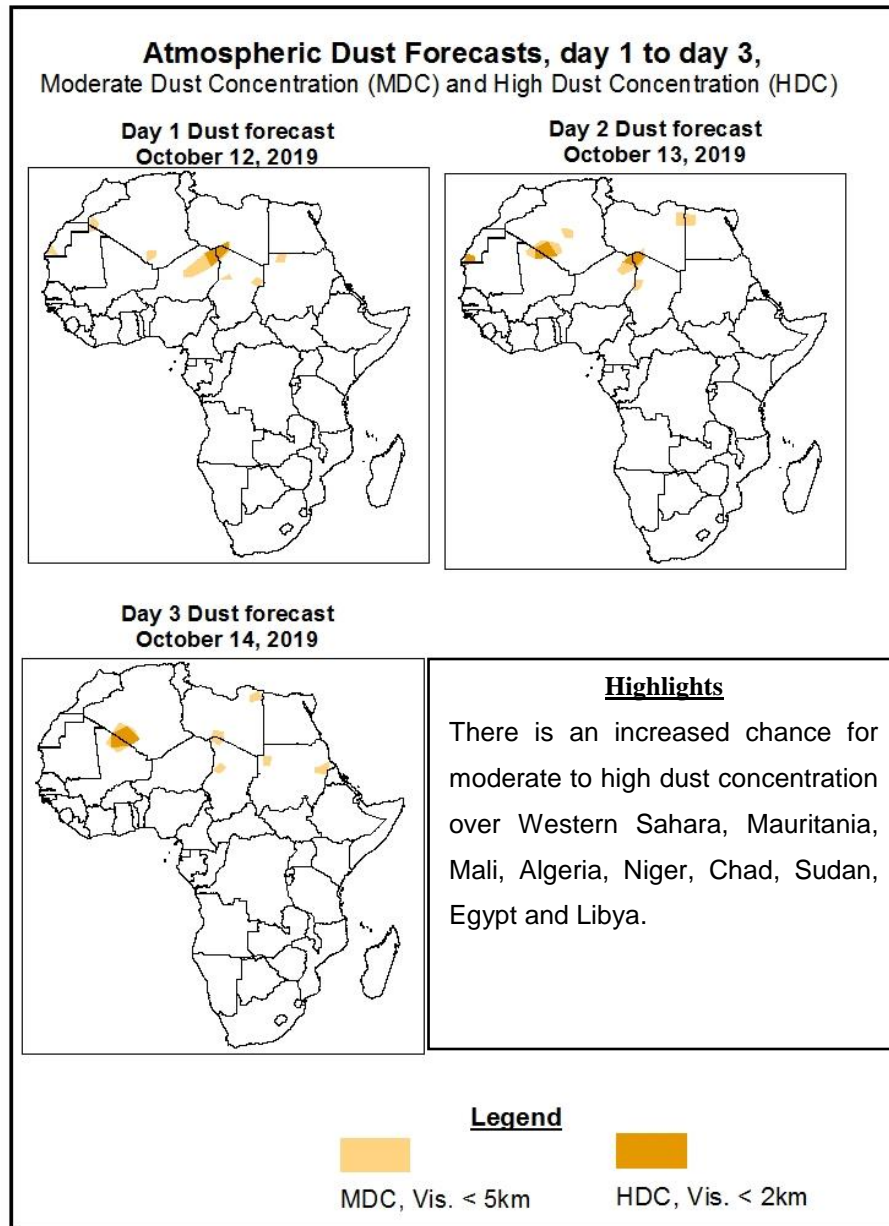


Highlights

- The monsoon flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over portions of West and Central Africa. Onshore flow from the Indian Ocean with its associated lower-level convergence is also expected to enhance rainfall over parts of the Greater Horn of Africa.
- At least 25mm for two or more days is likely over portions of southwestern Mali, Nigeria, Cameroon, DRC, Republic of Congo, Gabon, CAR, southern Chad, eastern Tanzania, Kenya, Angola, Ethiopia, South Sudan and southern Sudan.
- There is an increased chance for daily rainfall to exceed 50mm over Nigeria, Cameroon, Gabon, DRC, Angola, Ethiopia, southeast coast of Tanzania.
- There is an increased chance for daily maximum heat index to exceed 40°C over portions of Southern Mauritania.

1.2. Atmospheric Dust Concentration Forecasts (valid: 12 Oct – 14 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: 12 October – 16 October 2019

The Azores High Pressure system over the Northeast Atlantic is expected to weaken with its central pressure value decreasing from 1034hPa to 1024hPa during the forecast period.

The St. Helena High Pressure system over Southeast Atlantic Ocean expected to weaken, with its central pressure value decreasing from 1025hPa to 1021hPa during the forecast period. The center is partly continental and hence we expect a reduction in the wet activities.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to slightly weaken while shifting eastward, with its central pressure value decreases from 10294hPa to 1026hPa during the forecast period.

Thermal low across the Sahel region is expected to slightly deepen with its central pressure value decreasing from 1008hPa to 1007hPa while shifting westward during the forecast period.

At 925-hPa level, strong dry northerly flow is expected to prevail across Northwest Africa. On the other hand, moist southwesterly flow from the Atlantic Ocean is expected to prevail across the Gulf of Guinea and the Sahel regions, the neighboring areas of Central Africa and southeastern part of Great Horn of Africa.

At 850-hPa, meridional wind convergence is expected to remain active in the Lake Victoria region and the neighboring areas of Central Africa during the forecast period. The cyclonic circulation moving westward across West Africa will enhance precipitation over Guinea, Liberia, Sierra-Leone and Cote D'Ivoire during the two first days of forecast period. Converging winds over coastal areas of East Africa (Tanzania, Kenya and Mozambique) are likely to maintain occasional enhanced to heavy precipitation over these areas.

At 700-hPa, a broad area of anticyclonic circulation is expect to remain while shifting westward over North Africa. Also, generally easterly flow is expected to steer convective activities from DRC towards the West affecting the Gulf of Guinea and central Africa regions.

At 500-hpa, wind speed associated with easterly flow is expected to exceed 30kts across the Northern Africa, Sahel, central, east and West Africa region during the forecast period.

The monsoon flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over portions of West and Central Africa. Onshore flow from the Indian Ocean with its associated lower-level convergence is also expected to enhance rainfall over parts of the Greater Horn of Africa. At least 25mm for two or more days is likely over portions of southwestern Mali, Nigeria, Cameroon, DRC, Republic of Congo, Gabon, CAR, southern Chad, eastern Tanzania, Kenya, Angola, Ethiopia, South Sudan and southern Sudan. There is an increased chance for daily rainfall to exceed 50mm over Nigeria, Cameroon, Gabon, DRC, Angola, Ethiopia, southeast coast of Tanzania. There is an increased chance for daily maximum heat index to exceed 40°C over portions of Southern Mauritania.

2.0. Previous and Current Day Weather over Africa

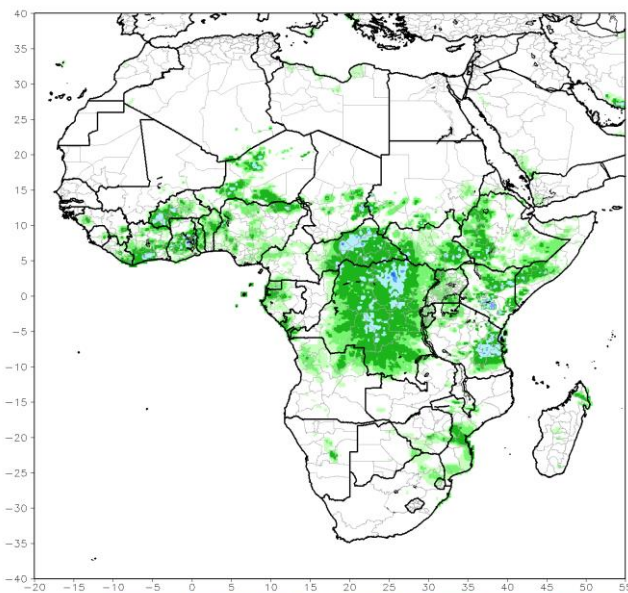
2.1. Weather assessment for the previous day (Oct 10, 2019)

Daily rainfall amount exceeded 25mm over Burkina Faso, Ghana, Cote D'Ivoire, Niger, Nigeria, CAR, Chad, eastern coast of Tanzania, Kenya, Ethiopia and DRC and exceeded 50mm over DRC and Kenya.

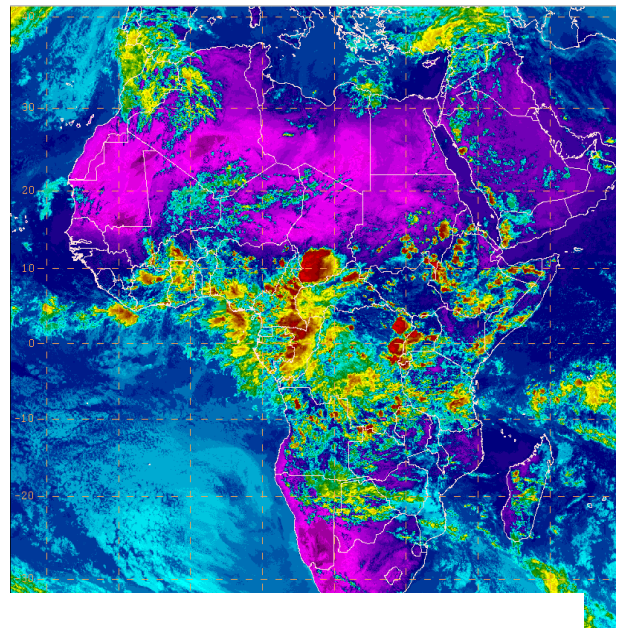
2.2. Weather assessment for the current day (Oct 11, 2019)

Deep convective clouds are observed over Central Africa and eastern Africa.

RFE2 Daily Total Rainfall (mm)
Period: 10Oct2019



IR Satellite Image (valid 1352 October 10, 2019)



Author: DIALLO Ahmadou AI. (CPC-African Desk/Guinea Meteorological Service)