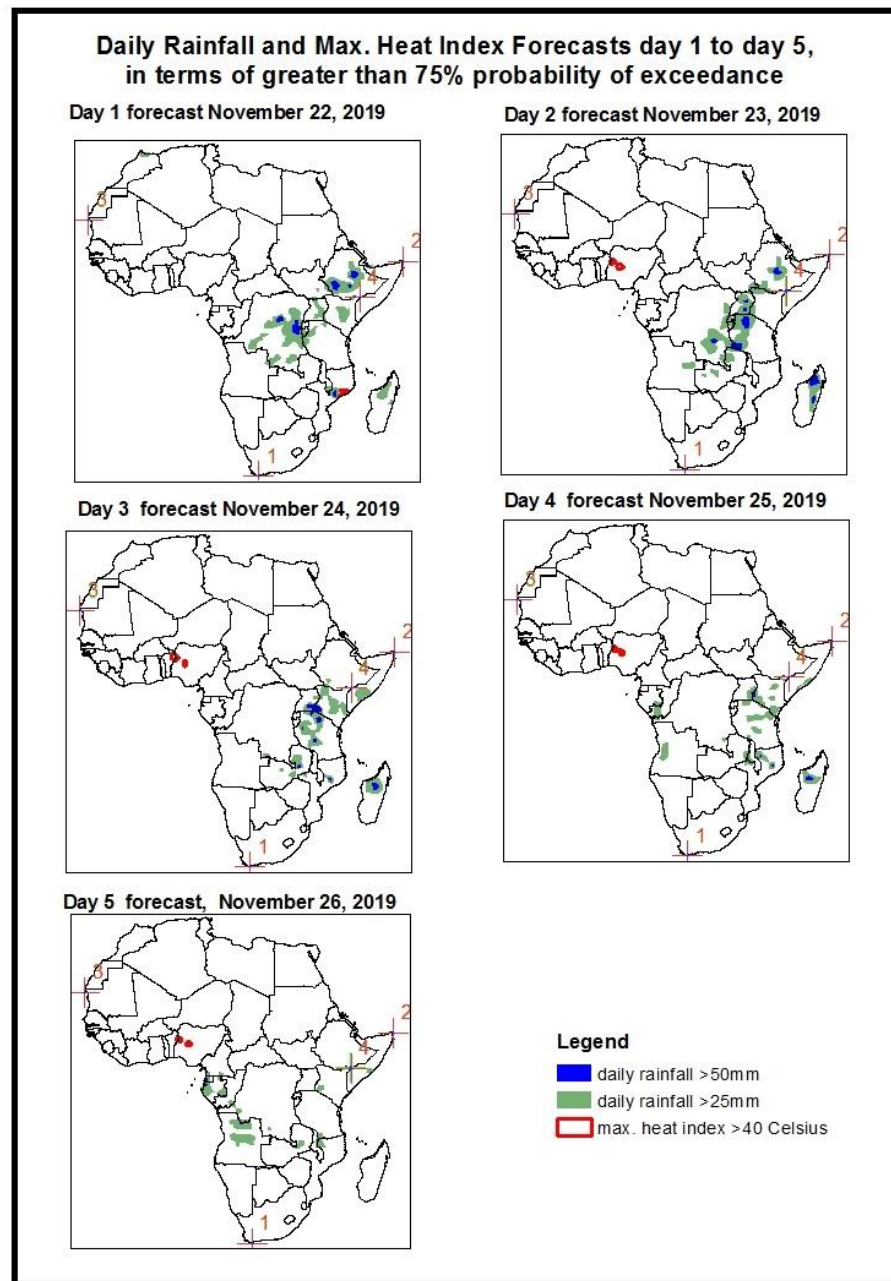


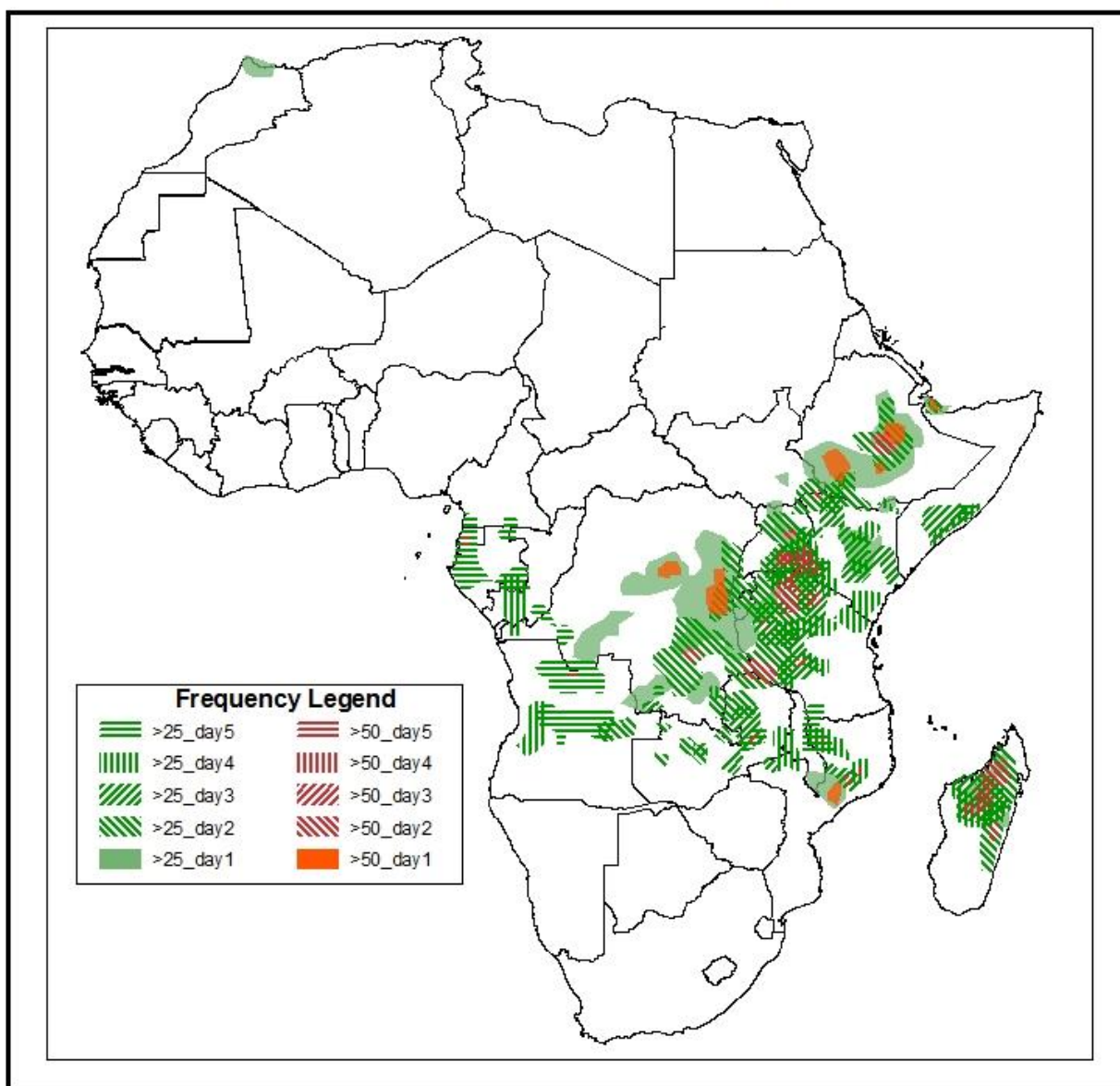
## 1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on November 21, 2019)

### 1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 22 November – 26 November, 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 November 22 - November 26, 2019

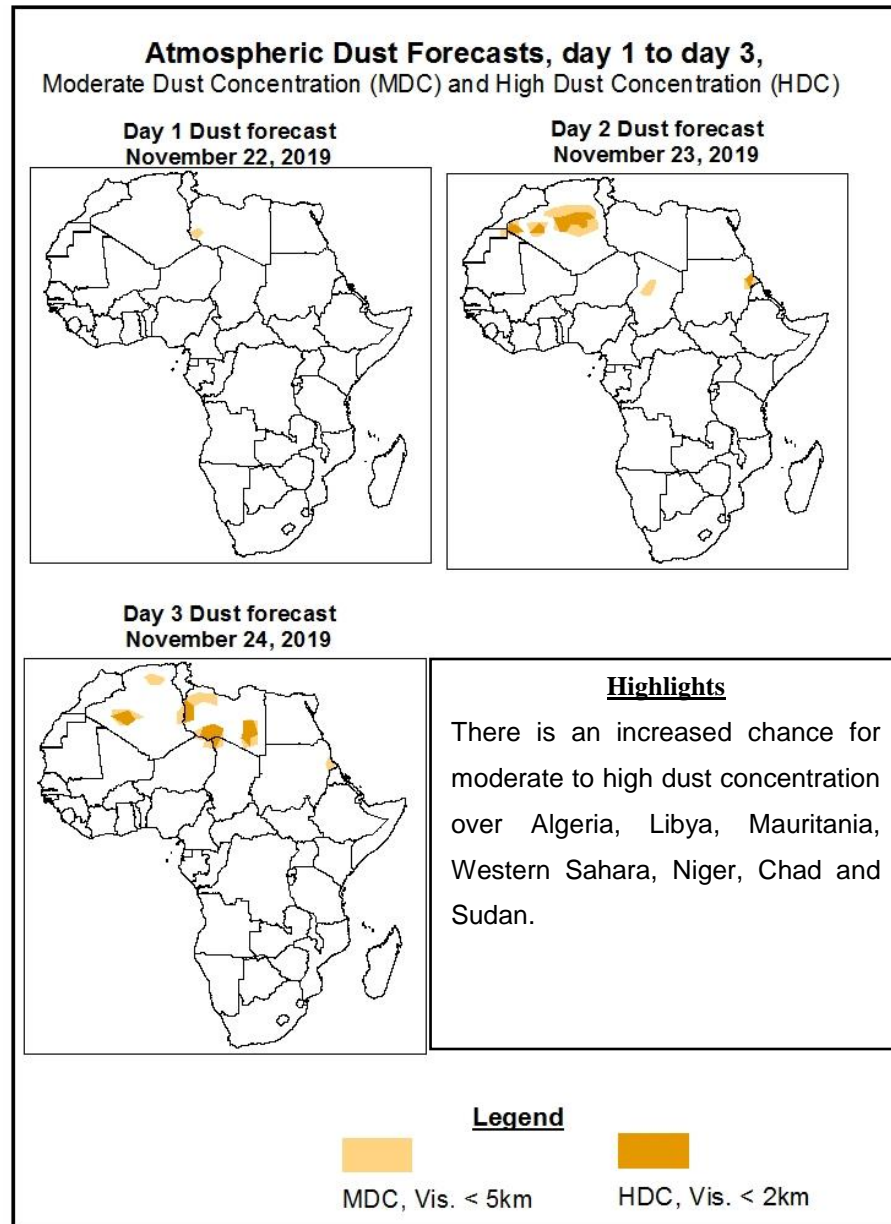


### Highlights

- Strong lower-level convergence in the Lake Victoria region and onshore flow from the Indian Ocean with its associated lower-level convergence is expected to enhance rainfall over the many places in the Greater Horn of Africa. Onshore flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over parts of Central Africa.
- At least 25mm for two or more days is likely over portions of Cameroon, Equatorial Guinea, Gabon, Republic of Congo, DRC, Angola, Uganda, South Sudan, Kenya, Ethiopia, Somalia, Tanzania, Malawi, Zambia, Mozambique and Madagascar.
- There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Madagascar, Mozambique, Zambia, DRC, Tanzania, Uganda, Kenya, South Sudan, Ethiopia, Somalia, Angola and Equatorial Guinea.
- There is an increased chance for daily maximum heat index to exceed 40°C over Nigeria, Benin and Mozambique.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: 22 Nov – 24 Nov 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: 22 November –26 November 2019**

The Azores High Pressure system over the Northeast Atlantic is generally expected to remain constant while shifting eastwards with its central pressure value at 1020hPa for the first three days of the forecast period and then it is expected to be continental and strengthen to 1022hPa during the remainder of the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is generally expected to slightly strengthen while shifting eastwards with its central pressure value increasing from 1019hPa to 1021hPa during the forecast period.

The Mascarene High Pressure system is further to the east of the Indian Ocean with its central pressure value expected to remain constant at 1025hPa during the two days of the forecast period and then it is expected to appear in its usually location (Southeast Indian Ocean) from the third day of the forecast period with its central pressure value increasing from 1021hPa to 1031hPa while shifting eastwards during the remainder of the forecast period.

The Arabian Ridge from the strong Siberian High Pressure system (weakening from 1054hPa to 1034hPa during the forecast period) is expected to have a significant impact on the weather across most parts of northeastern Africa and Great Horn of Africa.

At 925-hPa level, moist southwesterly flow from the Atlantic Ocean is expected to prevail across the Gulf of Guinea, southern Sahel regions and the neighboring areas of Central Africa. On the other hand, easterly flow from the Indian Ocean with its low-level convergence is expected to prevail across the Great Horn of Africa and parts of Central Africa while the combination of the northeasterly flow from the Indian Ocean and the southwesterly flow from the Atlantic Ocean with their low-level convergences is expected to prevail across most parts of southern Africa.

At 850-hPa level, strong dry northerly flow is expected remain active and prevail across southern Sahel countries. On the other hand, meridional and seasonal wind convergence is expected to remain active across the Lake Victoria region, Congo Basin and the neighboring

areas of Central Africa, Cameroon, Gabon, Equatorial Guinea, Angola, CAR, South Sudan and Sudan during the forecast period. Converging winds over Kenya, Tanzania, Uganda, Burundi, Rwanda, Ethiopia, South Sudan, Mozambique, Malawi, Zimbabwe, Zambia, Namibia, Botswana, Madagascar and South Africa; these are likely to maintain the occasional enhanced to moderate precipitation over these areas.

Strong lower-level convergence in the Lake Victoria region and onshore flow from the Indian Ocean with its associated lower-level convergence is expected to enhance rainfall over the many places in the Greater Horn of Africa. Onshore flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over parts of Central Africa. At least 25mm for two or more days is likely over portions of Cameroon, Equatorial Guinea, Gabon, Republic of Congo, DRC, Angola, Uganda, South Sudan, Kenya, Ethiopia, Somalia, Tanzania, Malawi, Zambia, Mozambique and Madagascar. There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Madagascar, Mozambique, Zambia, DRC, Tanzania, Uganda, Kenya, South Sudan, Ethiopia, Somalia, Angola and Equatorial Guinea. There is an increased chance for daily maximum heat index to exceed 40°C over Nigeria, Benin and Mozambique.



## 2.0. Previous and Current Day Weather over Africa

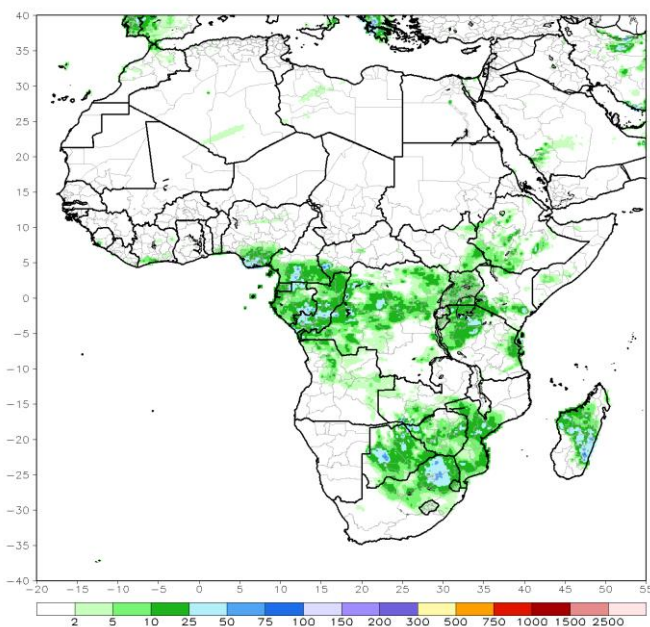
### 2.1. *Weather assessment for the previous day* (Nov 20, 2019)

Daily rainfall amount exceeded 25mm over Nigeria, Cameroon, Equatorial Guinea, Gabon, Republic of Congo, CAR, DRC, Uganda, Tanzania, Kenya, Ethiopia, Angola, Namibia, Zambia, Zimbabwe, Botswana, South Africa, Mozambique and Madagascar; and exceeded 50mm over Nigeria, Cameroon, Gabon, Republic of Congo, CAR, DRC, Zambia, Zimbabwe, Botswana, South Africa and Madagascar.

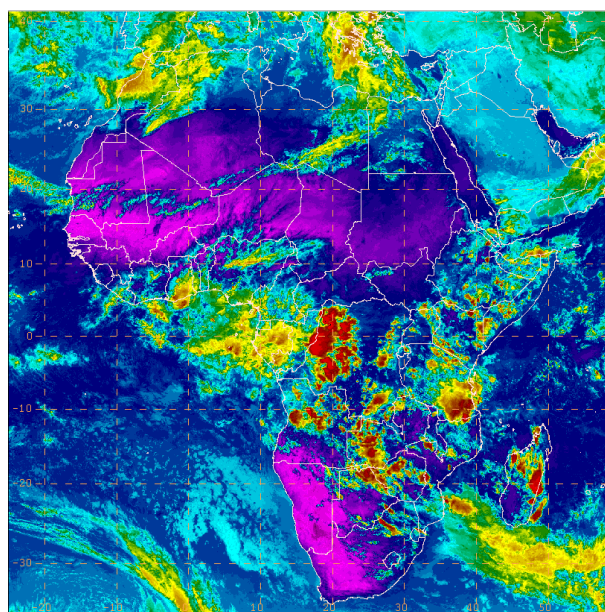
### 2.2. *Weather assessment for the current day* (Nov 21, 2019)

Deep convective clouds are observed over many places in Central Africa, the Greater Horn of Africa and portions in western and southern Africa.

RFE2 Daily Total Rainfall (mm)  
Period: 20Nov2019



IR Satellite Image (valid 1452 November 21, 2019)



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