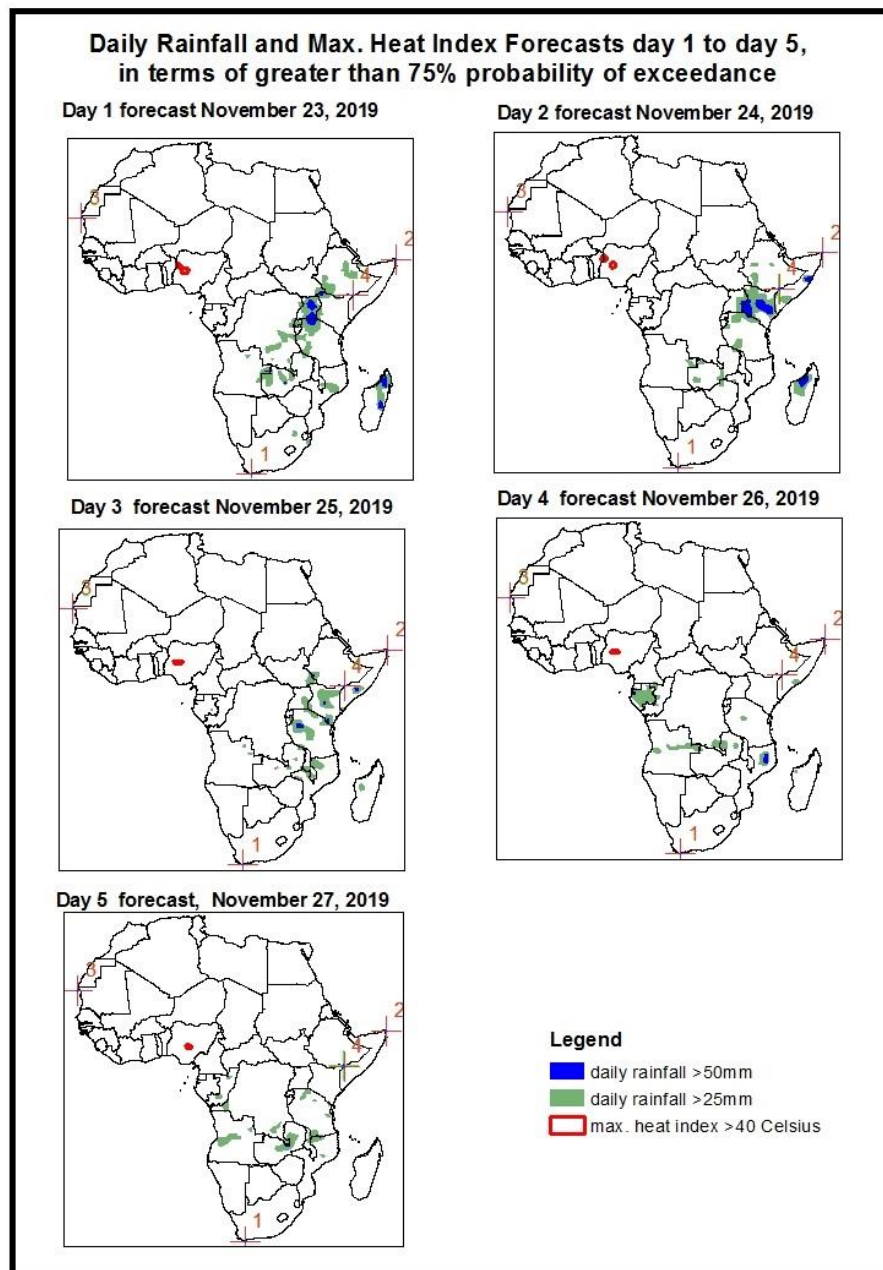


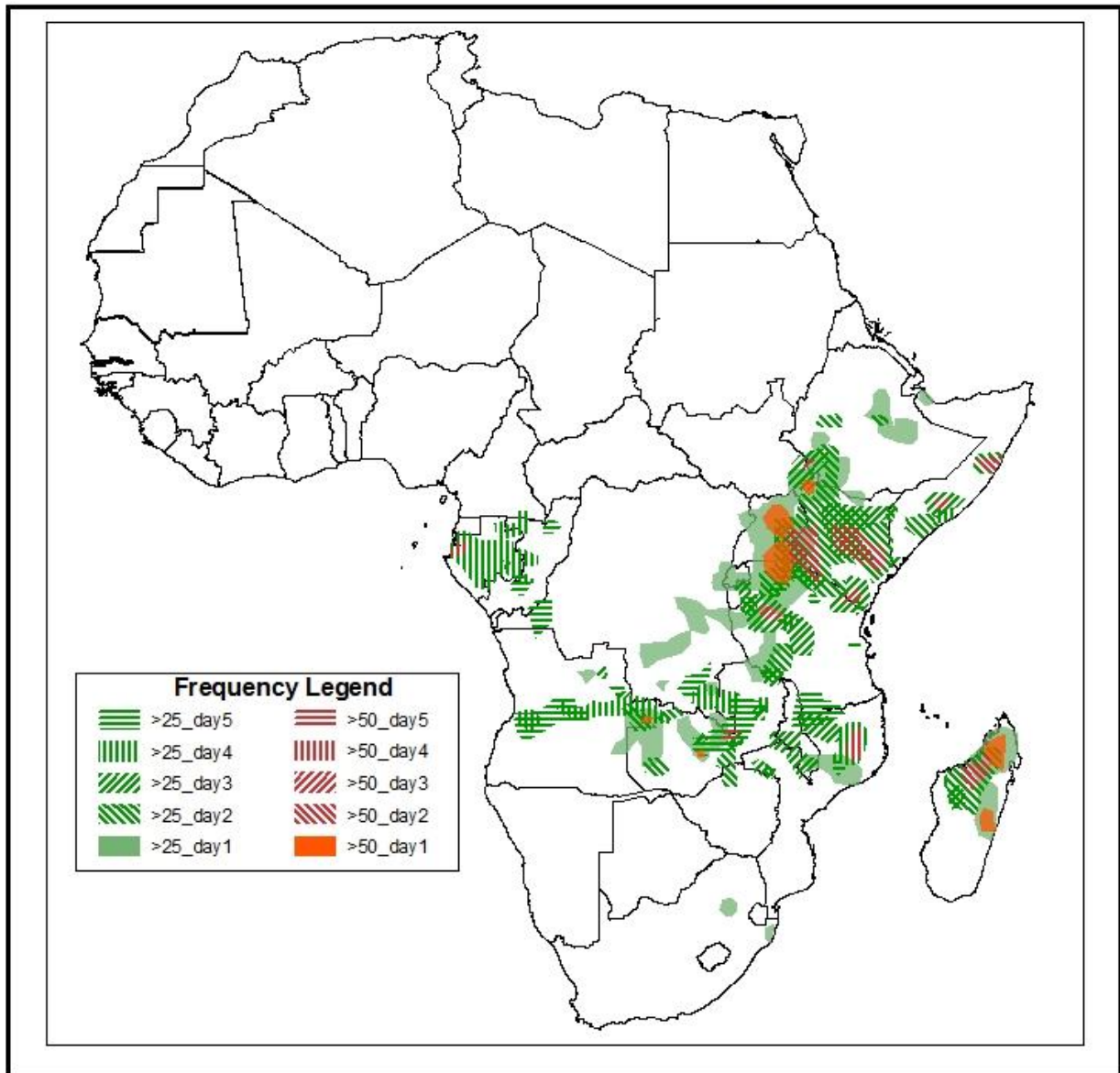
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on November 22, 2019)

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

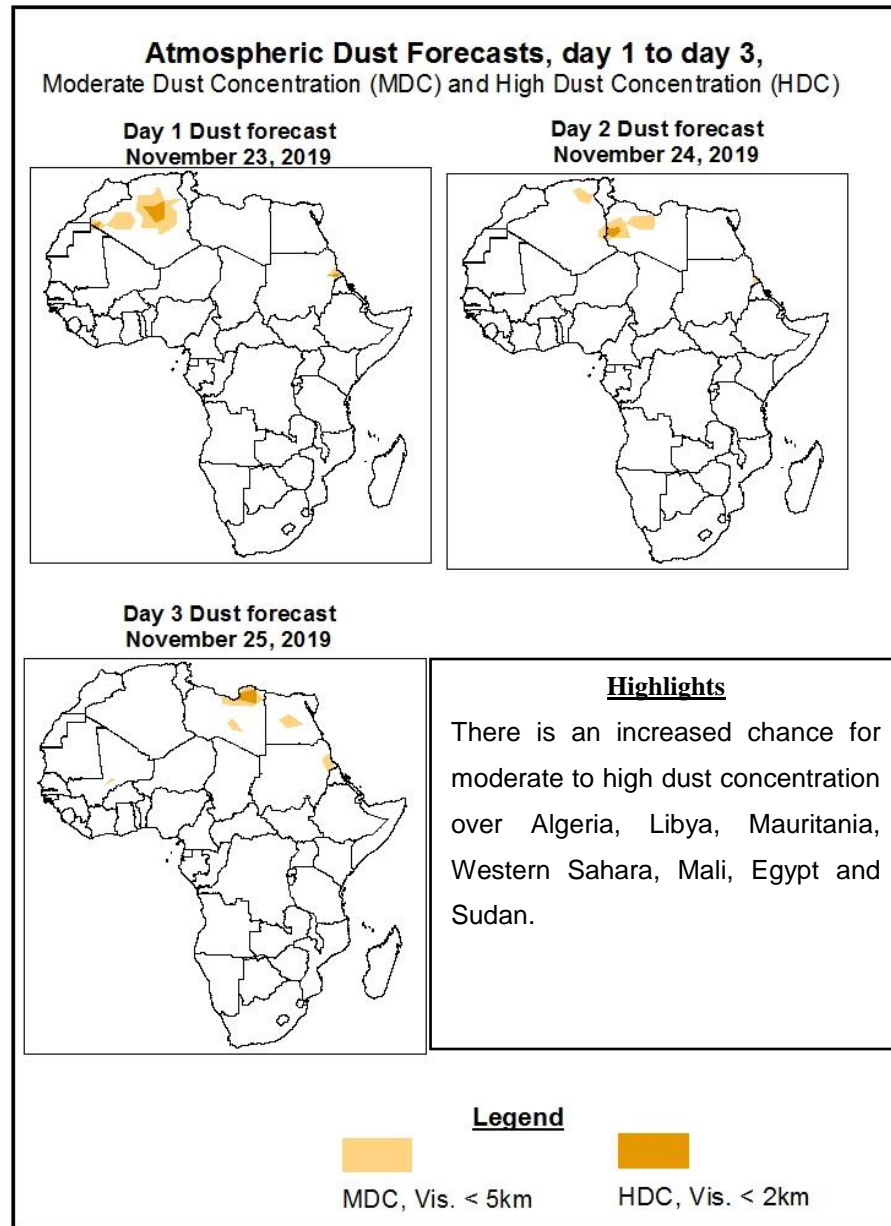


Highlights

- 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 western Equatorial and 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, Zimbabwe, 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 and Gabon.
- There is an increased chance for daily maximum heat index to exceed 40°C over Nigeria and Benin.

1.2. Atmospheric Dust Concentration Forecasts (valid: 23 Nov – 25 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: 23 November –27 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 four days of the forecast period and then it is expected to be purely continental at 1022hPa during the last day of the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is generally expected to remain constant at 1020hPa while shifting eastwards during the forecast period and it is expected to be partly continental during the last day of 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 intensify with its central pressure value increasing from 1025hPa to 1031hPa during the remainder of the forecast period.

The relatively strong Arabian Ridge from the strong Siberian High Pressure system (weakening from 1051hPa 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, Lesotho, South Africa and Madagascar; 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 western Equatorial and 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, Zimbabwe, 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 and Gabon. There is an increased chance for daily maximum heat index to exceed 40°C over Nigeria and Benin.

2.0. Previous and Current Day Weather over Africa

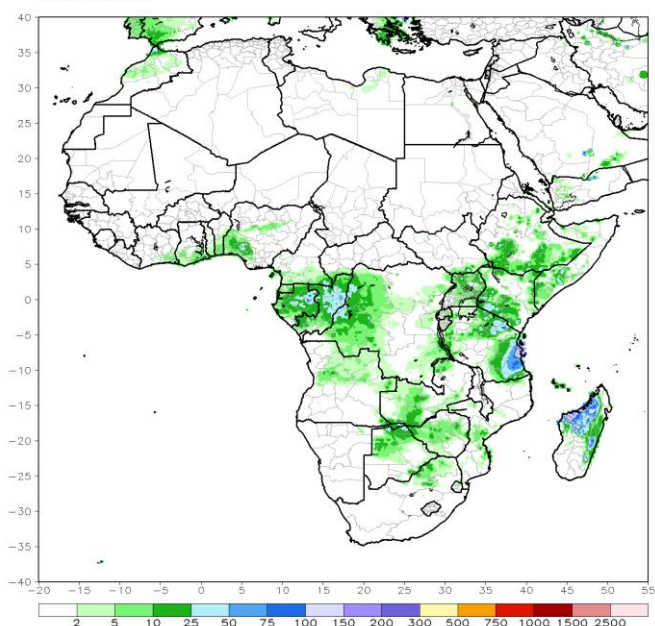
2.1. *Weather assessment for the previous day* (Nov 21, 2019)

Daily rainfall amount exceeded 25mm over Morocco, Ghana, Nigeria, Cameroon, Gabon, Republic of Congo, DRC, Uganda, Tanzania, Kenya, South Sudan, Ethiopia, Somalia, Namibia, Zambia, Zimbabwe, Botswana and Madagascar; and exceeded 50mm over Gabon, Republic of Congo, Namibia, Botswana, Tanzania, Kenya, Somalia and Madagascar.

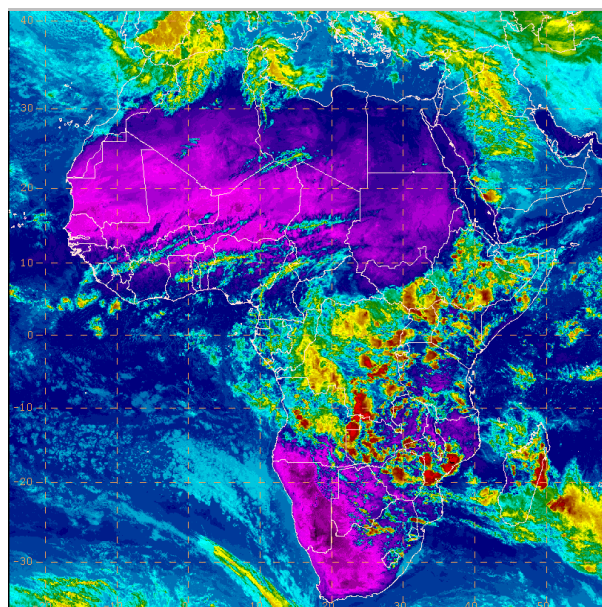
2.2. *Weather assessment for the current day* (Nov 22, 2019)

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

RFE2 Daily Total Rainfall (mm)
Period: 21Nov2019



IR Satellite Image (valid 1352 November 22, 2019)



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