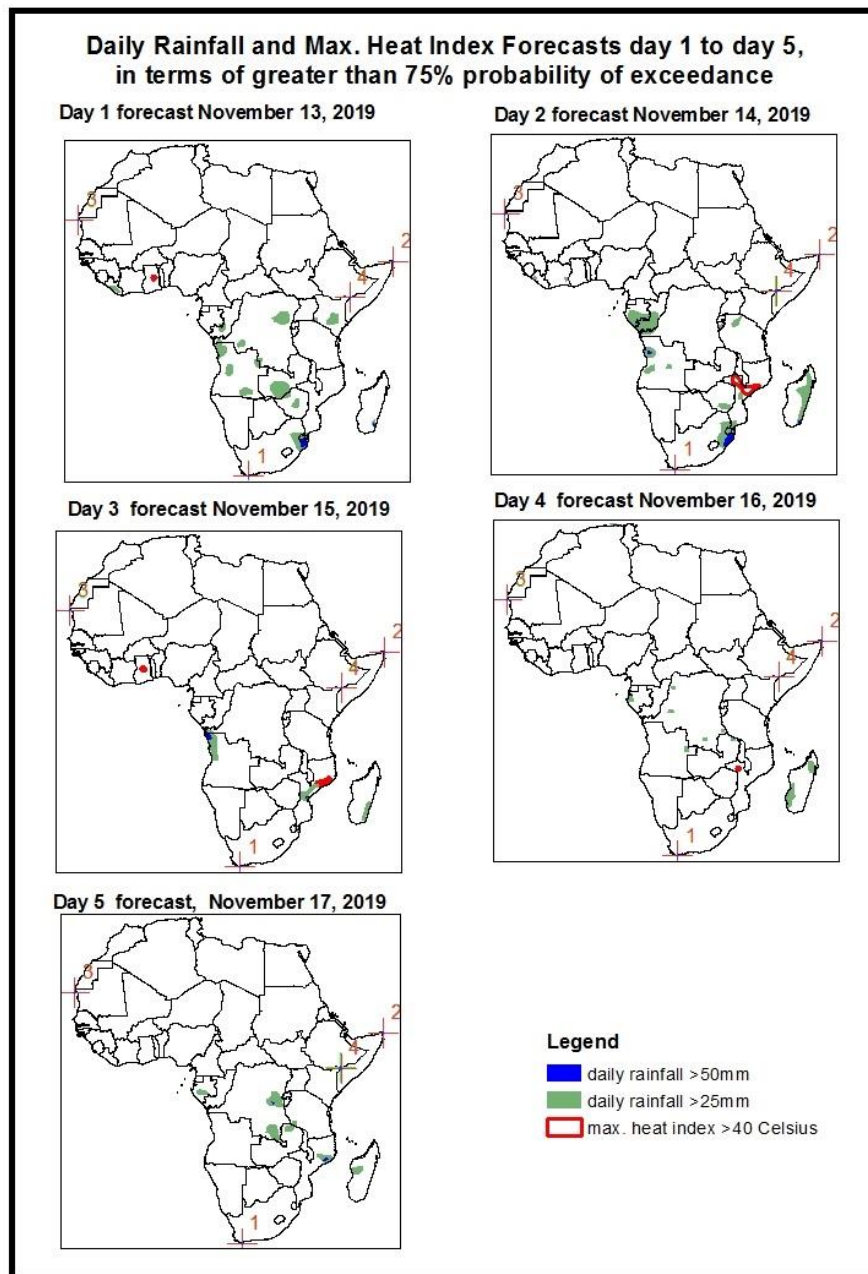


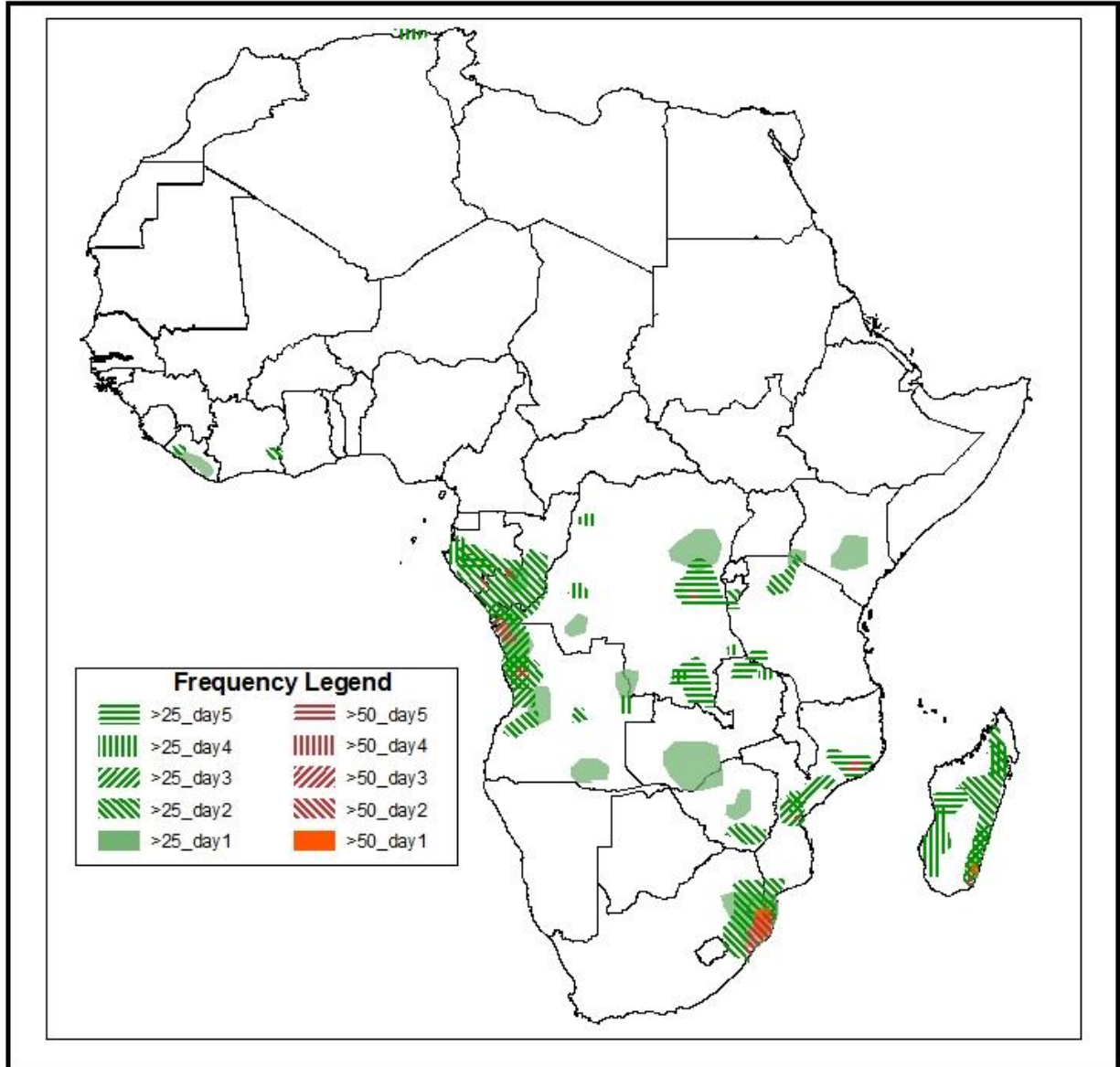
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on November 12, 2019)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 13 November – 17 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 13 - November 17, 2019

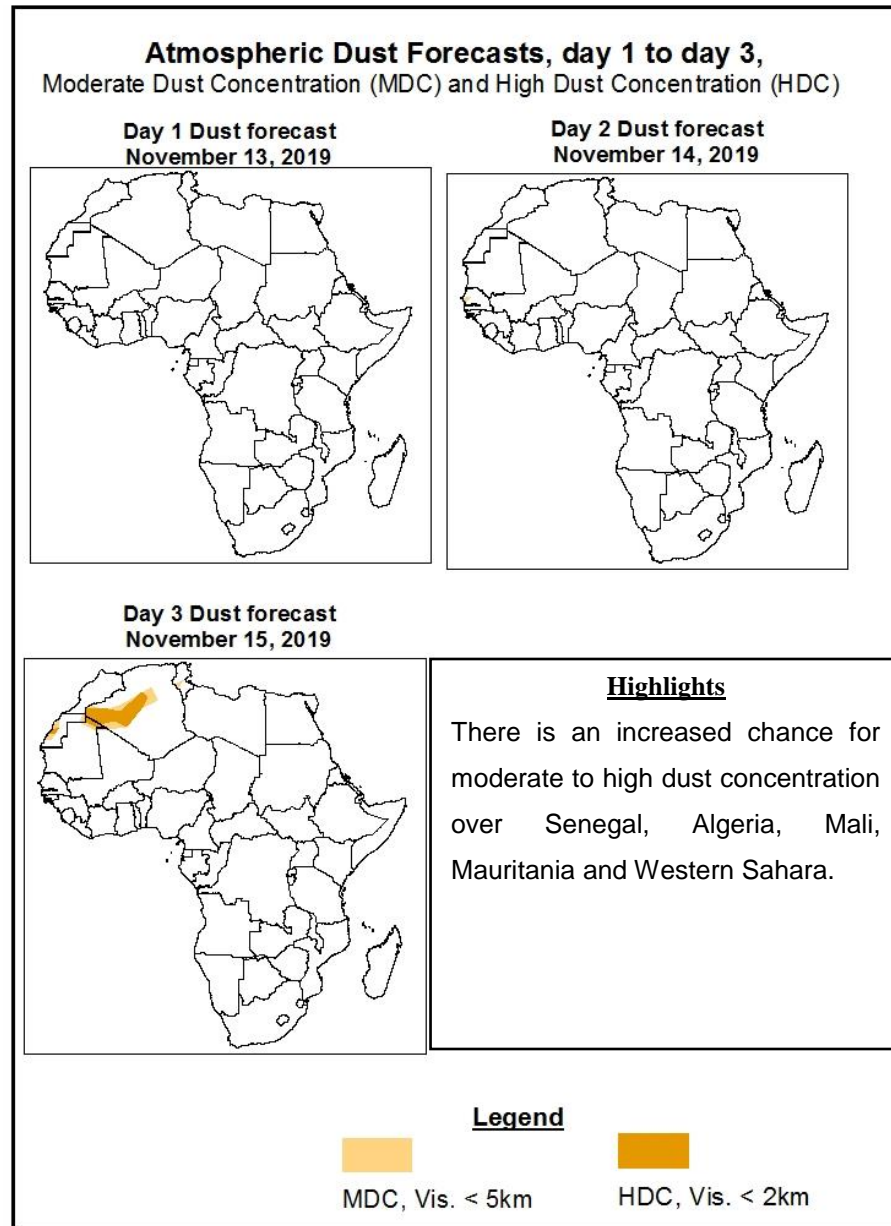


Highlights

- Westerly flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over the western portions of equatorial Africa. Onshore flow from the Indian Ocean with its associated lower-level convergence is expected to enhance rainfall across portions of Southeast Africa.
- At least 25mm for two or more days is likely over portions of Algeria, Liberia, Cote D'ivoire, Gabon, Republic of Congo, DRC, Angola, Burundi, Kenya, Tanzania, Mozambique, Madagascar, Zambia, Zimbabwe, Eswatini, Lesotho and South Africa.
- There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Republic of Congo, Mozambique and South Africa.
- There is an increased chance for daily maximum heat index to exceed 40°C over Ghana and Mozambique.

1.2. Atmospheric Dust Concentration Forecasts (valid: 13 Nov – 15 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: 13 November – 17 November 2019

The Azores High Pressure system over the Northeast Atlantic is expected to intensify with its central pressure value increasing from 1030hPa to 1034hPa during the first day of the forecast period and then it is expected to maintain that central pressure value for the next two days before it starts to weaken from 1034hPa to 1027hPa during the last two days of the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is expected to intensify while shifting eastwards with its central pressure value increasing from 1027hPa to 1033hPa for the first three days of the forecast period and then it is expected to slightly weaken from 1033hPa to 1029hPa during the rest of the forecast period.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to intensify while shifting eastwards with its central pressure value increasing from 1032hPa to 1036hPa for the first day of the forecast period and then it is expected to weaken from 1036hPa to 1023hPa during the remainder of the forecast period.

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 northeasterly flow 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, southern Cameroon, Gabon, Angola, CAR and Sudan during the forecast period. Converging winds over Kenya, Tanzania, Uganda, 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.

Westerly flow from the Atlantic Ocean with its associated lower-level convergence is expected to enhance rainfall over the western portions of equatorial Africa. Onshore flow from the Indian Ocean with its associated lower-level convergence is expected to enhance rainfall across portions of Southeast Africa. At least 25mm for two or more days is likely over portions of Algeria, Liberia, Cote D'ivoire, Gabon, Republic of Congo, DRC, Angola, Burundi, Kenya, Tanzania, Mozambique, Madagascar, Zambia, Zimbabwe, Eswatini, Lesotho and South Africa. There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Republic of Congo, Mozambique and South Africa. There is an increased chance for daily maximum heat index to exceed 40°C over Ghana and Mozambique.

2.0. Previous and Current Day Weather over Africa

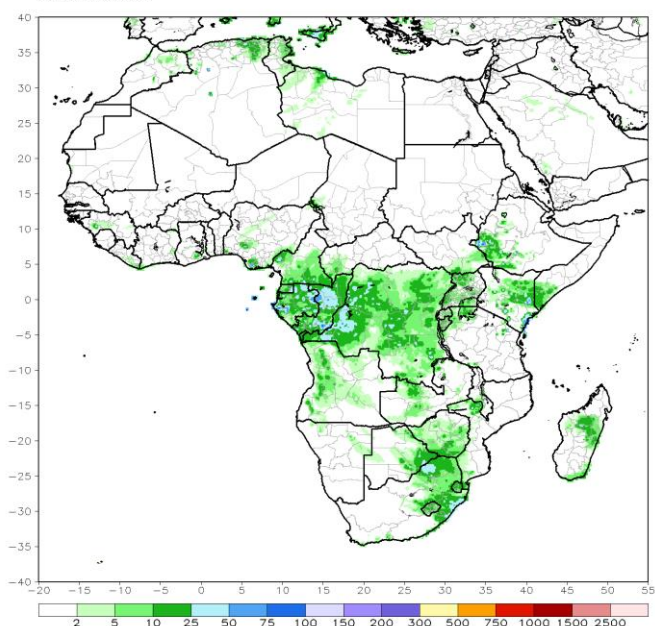
2.1. *Weather assessment for the previous day* (Nov 11, 2019)

Daily rainfall amount exceeded 25mm over Algeria, Libya, Guinea, Ghana, Nigeria, Cameroon, Equatorial Guinea, Gabon, DRC, Republic of Congo, Tanzania, Kenya, Ethiopia, Zambia, Mozambique, Botswana, South Africa and Madagascar; and exceeded 50mm over Algeria, Nigeria, Gabon, Republic of Congo, DRC, Tanzania, Kenya and Ethiopia.

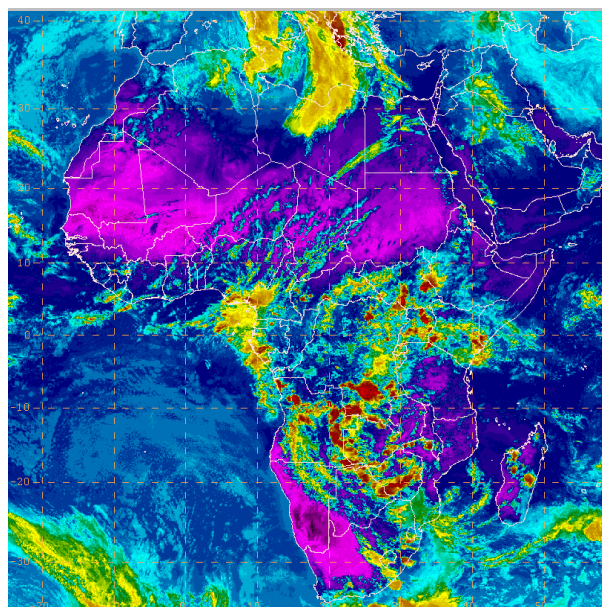
2.2. *Weather assessment for the current day* (Nov 12, 2019)

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

RFE2 Daily Total Rainfall (mm)
Period: 11Nov2019



IR Satellite Image (valid 1352 November 12, 2019)



Author: MUSA Ssemujju (CPC-African Desk/Uganda Meteorological Service)