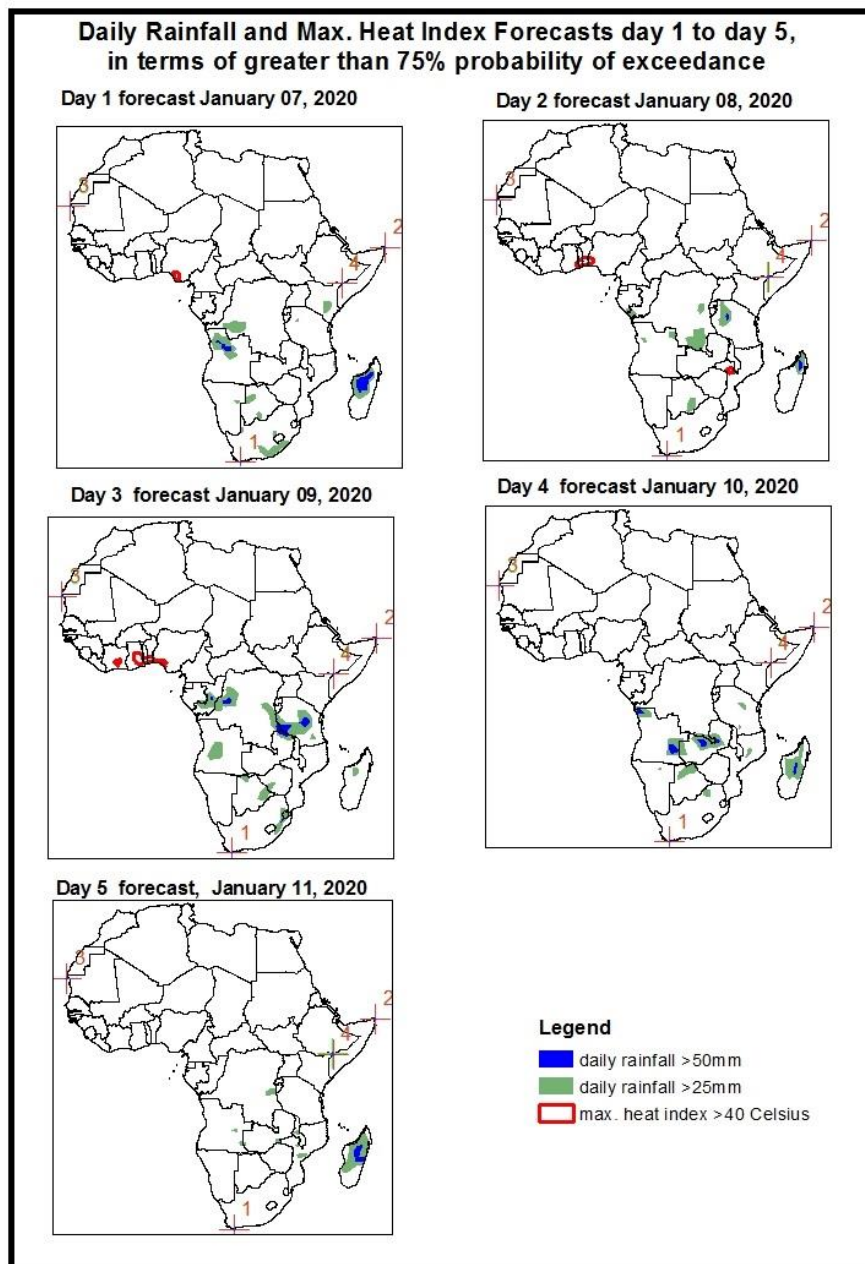


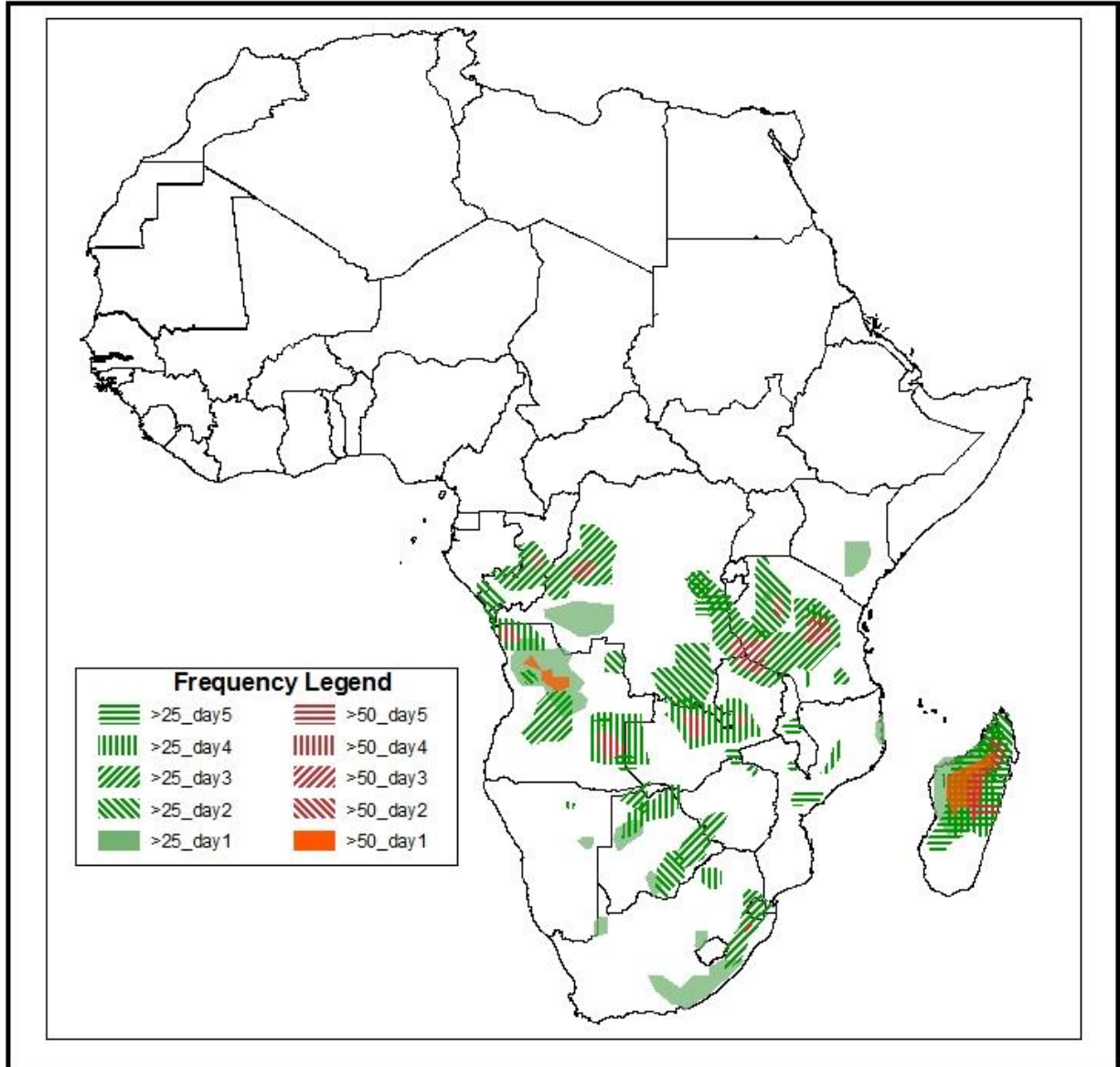
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on January 6, 2020)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 07 Jan – 11 Jan, 2020)

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 January 07 - January 11, 2020

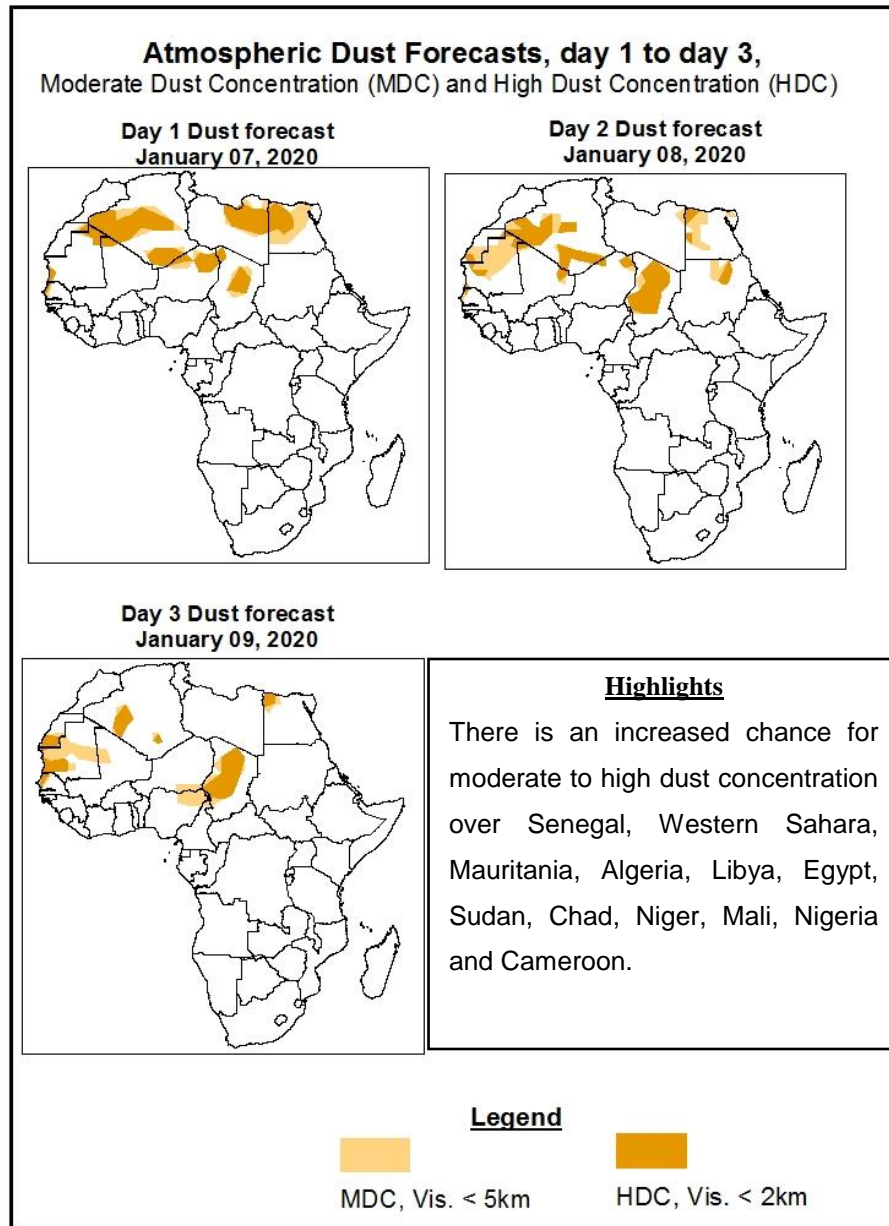


Highlights

- Strong lower-level wind convergences are expected to enhance rainfall over parts of western Equatorial Africa, Central Africa, Tanzania and Madagascar.
- At least 25mm for two or more days is likely over portions of Gabon, Republic of Congo, DRC, Angola, Namibia, South Africa, Lesotho, Eswatini, Botswana, Zimbabwe, Mozambique, Madagascar, Zambia, Malawi, Tanzania and Burundi.
- There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Republic of Congo, DRC, Angola, South Africa, Zambia, Tanzania and Madagascar.
- There is an increased chance for daily maximum heat index to exceed 40oC over Nigeria, Benin, Togo, Ghana, Cote D'ivoire and Mozambique.

1.2. Atmospheric Dust Concentration Forecasts (valid: 07 Jan – 09 Jan 2020)

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: 07 January – 11 January 2020

The Azores High Pressure system over the Northeast Atlantic Ocean is generally expected to intensify with its central pressure value increasing from 1030hPa to 1036hPa during the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is generally expected to strengthen while shifting eastwards with its central pressure value increasing from 1020hPa to 1026hPa during the forecast period.

The Mascarene High Pressure system over Southwest of Indian Ocean is generally expected to remain almost constant while shifting eastwards, with slight variation in its central pressure values between 1025 and 1026hPa for the first four days of the forecast period. Thereafter, its central pressure value is expected to increase from 1026hPa to 1029hPa during the last day of the forecast period.

The Arabian Ridge is relatively strong and is expected to remain active during the forecast period. This implies that it will have a significant impact on the weather across most parts of northeastern Africa and portions of the Great Horn of Africa.

At 925-hPa level, strong hot, dry and dusty northerly to northeasterly flow from the Sahara is expected to prevail across northern Sahel region and northwestern parts of Africa, while the cool and moist southwesterly flow from the Atlantic Ocean with its low-level convergence is expected to prevail across the Gulf of Guinea, southern Sahel regions and most neighboring areas of Central, western equatorial Africa. The evolution of ITD is clearly visible during the forecast period. On the other hand, the northeasterly flow from the Indian Ocean with its low-level convergence is expected to prevail across most parts of the Greater Horn of Africa and parts of Central Africa whereas the combination of northeasterly and easterly flows from the Indian Ocean together 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 while an area of strong cyclonic circulation shifting eastwards is

discernable over North Africa in particular over Libya and Egypt during the first three days of the forecast period. 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 and southern Africa during the forecast period. Converging lower-level winds over Kenya, Tanzania, Uganda, Burundi, Rwanda, Ethiopia, DRC, southern Cameroon, Mozambique, Malawi, Zimbabwe, Zambia, Angola, Namibia, Botswana, South Africa and Madagascar; are likely to maintain the occasional enhanced to moderate precipitation over these areas.

Strong lower-level wind convergences are expected to enhance rainfall over parts of western Equatorial Africa, Central Africa, Tanzania and Madagascar. At least 25mm for two or more days is likely over portions of Gabon, Republic of Congo, DRC, Angola, Namibia, South Africa, Lesotho, Eswatini, Botswana, Zimbabwe, Mozambique, Madagascar, Zambia, Malawi, Tanzania and Burundi. There is an increased likelihood for daily rainfall to exceed 50mm over local areas in Republic of Congo, DRC, Angola, South Africa, Zambia, Tanzania and Madagascar. There is an increased chance for daily maximum heat index to exceed 40oC over Nigeria, Benin, Togo, Ghana, Cote D'ivoire and Mozambique.

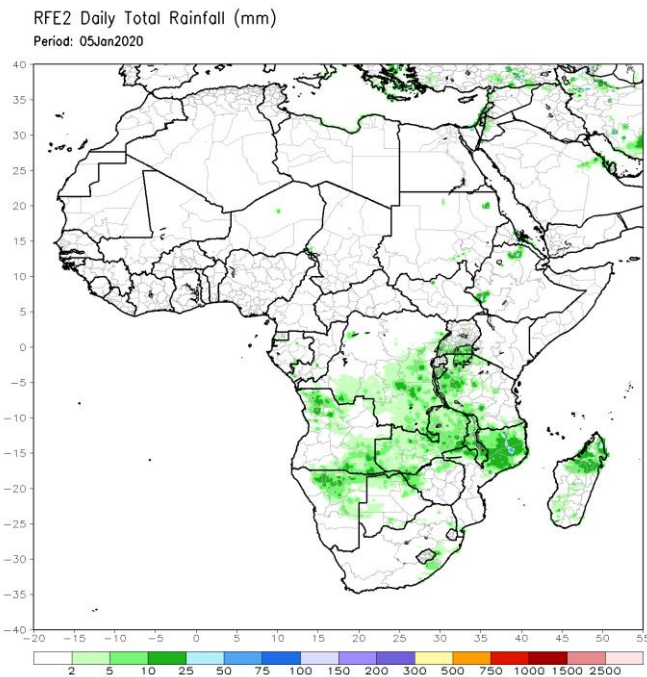
2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (January 05, 2020)

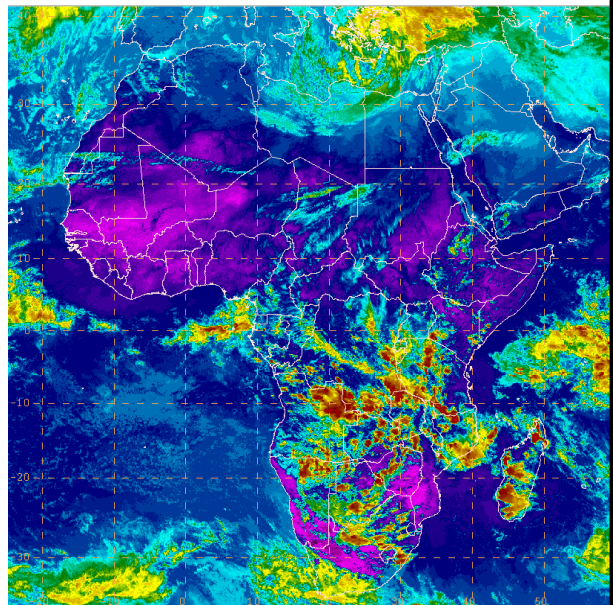
Daily rainfall amount exceeded 25mm over Egypt, Eritrea, Ethiopia, Mozambique and Madagascar, and exceeded 50mm over Mozambique, Eritrea and Egypt.

2.2. Weather assessment for the current day (January 06, 2020)

Deep convective clouds are observed over many places in the western equatorial and Central Africa, Tanzania, Madagascar and over portions of Southern Africa.



IR Satellite Image (valid 1552 January 06, 2020)



Author: Musa SSEMUJU (CPC-African Desk/Uganda National Meteorological Authority)