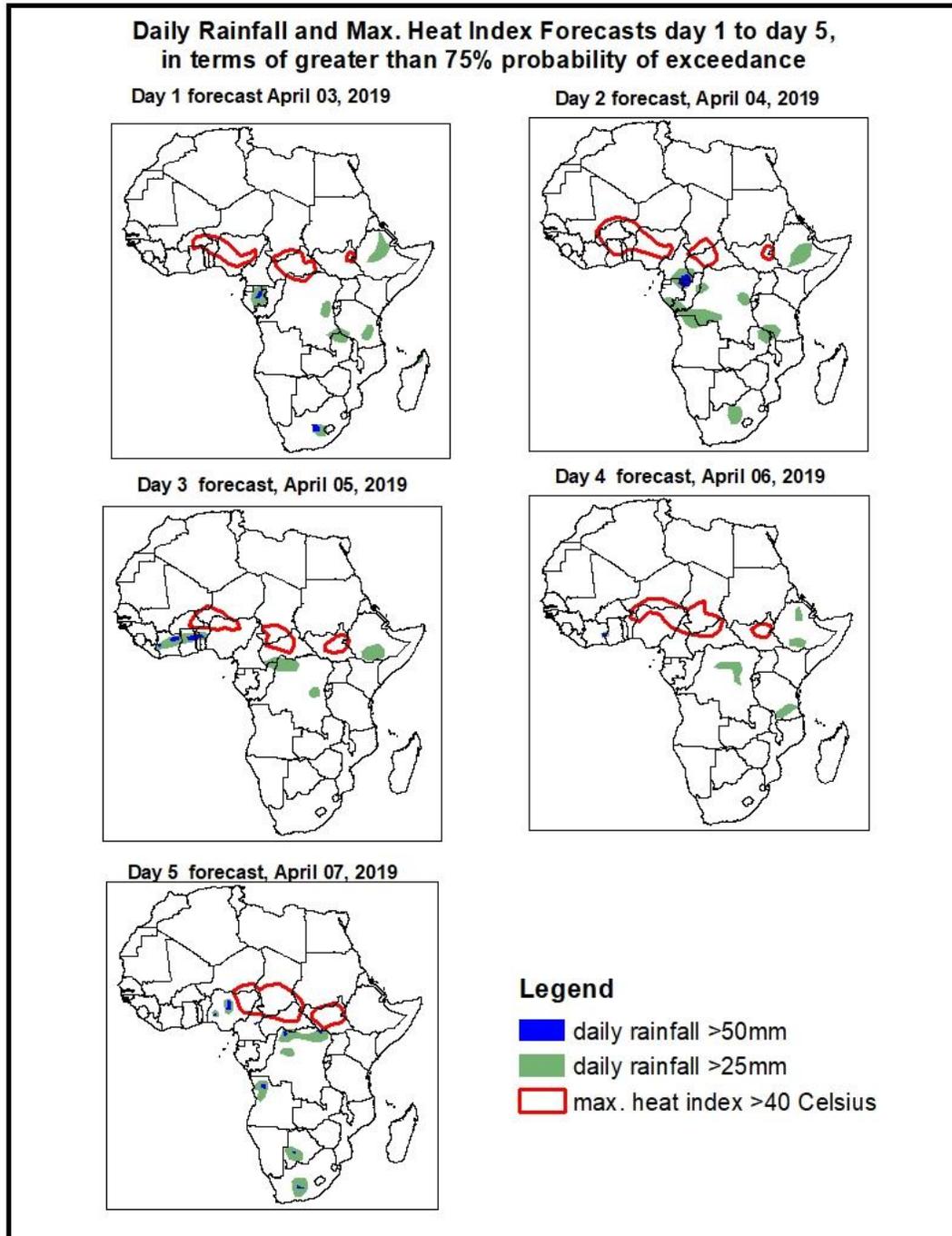


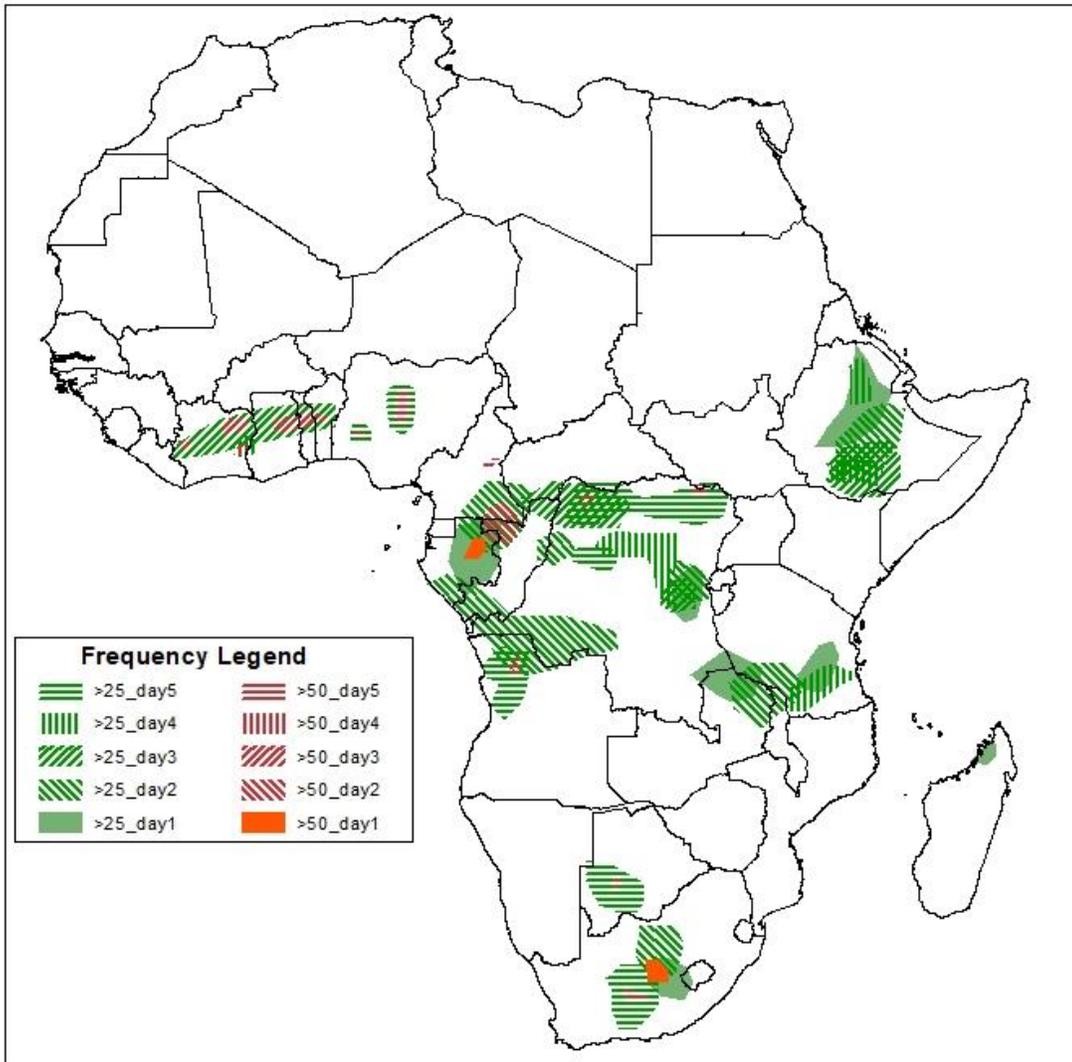
1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on April 02, 2019)

1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: 03 – 07 April, 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 03 - 07 April, 2019.

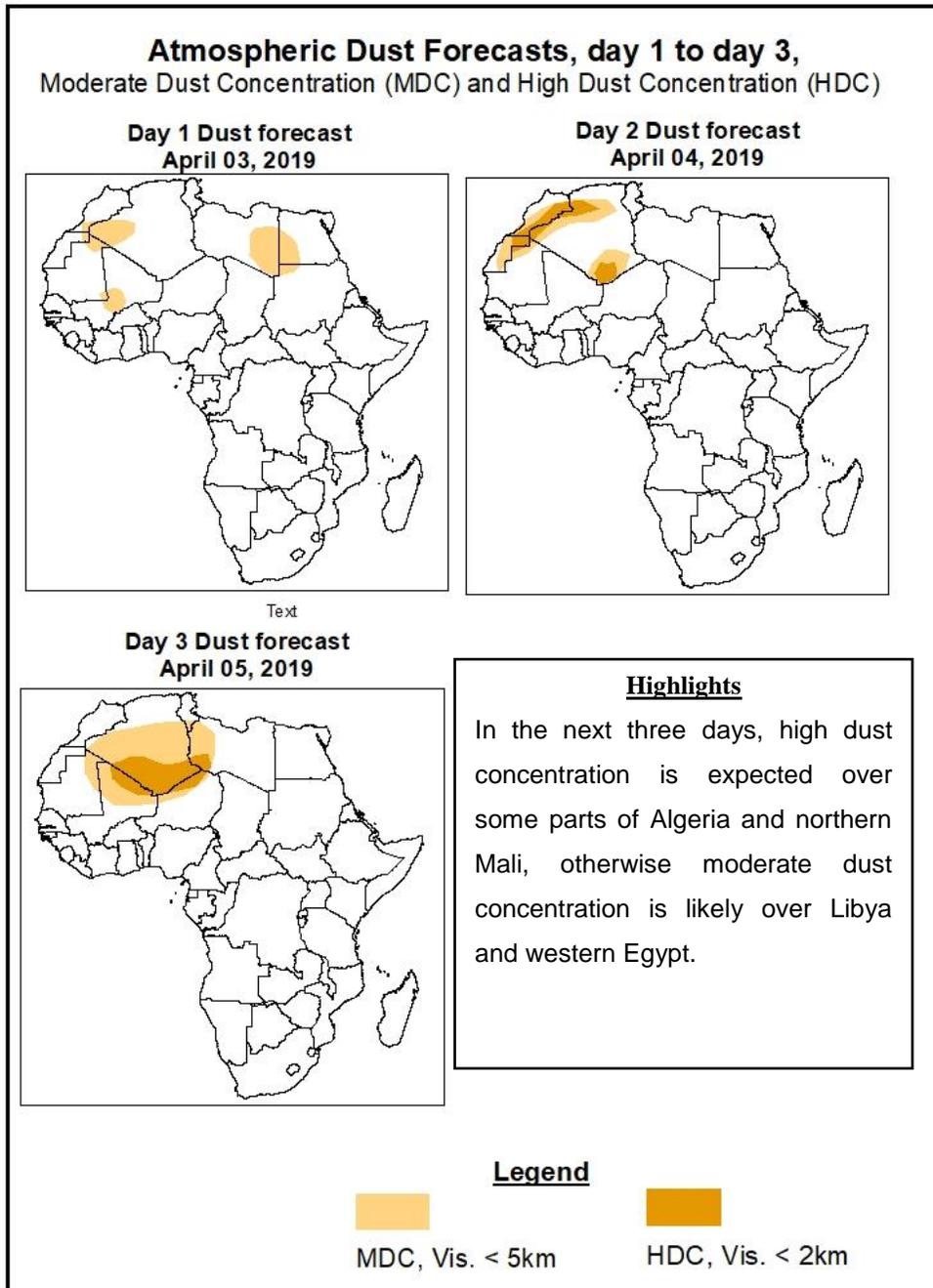


Highlights

- West African Monsoon flow from the Atlantic Ocean with its associated convergence in the Gulf of Guinea region is expected to enhance rainfall in the region.
- Persistent lower-level wind convergences are likely to maintain significant precipitation over some areas across the Equatorial Africa as well as those in East and few in the Great Horn of Africa.
- At least 25mm for two or more days is likely in isolated areas over portions of the Gulf of Guinea, central Africa, parts of Ethiopia, and southern parts of East Africa.
- There is an increased chance for daily maximum heat index to exceed 40°C across portions of the Sahel region.

1.2. Atmospheric Dust Concentration Forecasts (valid: 03 – 05 April 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: 03 – 07 April 2019

During the forecast period, the Azores High Pressure system over the North of Atlantic Ocean, currently at 1036hPa, is expected to slightly weaken and be confined further West due to the presence of frontal as well as occasional heat lows in Northern Africa.

The St. Helena High Pressure system over Southeast Atlantic Ocean is expected to intensify from 1023 to as high as 1029 towards the second half of the forecast period. This is likely to push the Zonal component of the ITCZ further North, increasing precipitation activities along the Gulf of Guinea. However, this intensification is not expected to cause significant migration of the Meridional component of the ITCZ towards East and thus its influence on Southern Africa weather is minimal.

The Mascarene High Pressure system over Southwest Indian Ocean is expected to slightly intensify during the first half of the period but relax during the second half due to erosion from the incoming frontal low.

At 925hPa, strong and dry, mainly northeasterly, winds are expected to continue blowing over the Sahel and Sahara regions during the period. Marked Monsoon winds convergence along the Gulf of Guinea and parts of the Sahel are expected to enhance precipitation especially towards the second half of the forecast period. Otherwise, low level convergences are expected to influence moderate to heavy precipitation over some areas in the central, East and Great Horn of Africa.

At 850hPa, mainly westerly convergent wind flow is expected along the Gulf of Guinea coast with the potential of enhanced precipitation. Separate convergent winds are also likely over parts of central Africa, particularly over the northern DRC and neighboring countries, Great Horn of Africa, especially western Ethiopia towards South Sudan as well as East Africa in most of Tanzania.

At 700hPa, generally easterly to northeasterly winds over the Gulf of Guinea expected. Due to this, expected convective activities are likely to be advected towards southwest. A cyclonic

trough in the in the mid-latitude westerlies is expected to extend southwards into parts of Northeast Africa. This may enhance rainfall over portions of Ethiopia.

At 500hPa, a general easterly wind flow over the Equatorial Africa is expected to be maintained during the entire period. Further North, general northerly winds are expected.

At 200hPa, increasingly strong wind (>90kts), associated with the subtropical westerly jet, is expected to prevail across northern Africa, with the strongest wind (>130kts) and significant bending over the northern parts of Africa likely during the second half of the period.

West African Monsoon flow from the Atlantic Ocean with its associated convergence in the Gulf of Guinea region is expected to enhance rainfall in the region. Persistent lower-level wind convergences are likely to maintain significant precipitation over some areas across the Equatorial Africa as well as those in East and few in the Great Horn of Africa. At least 25mm for two or more days is likely in isolated areas over portions of the Gulf of Guinea, central Africa, parts of Ethiopia, and southern parts of East Africa. • There is an increased chance for daily maximum heat index to exceed 40oC across portions of the Sahel region.

2.0. Previous and Current Day Weather over Africa

2.1. Weather assessment for the previous day (April 1, 2019)

Daily rainfall totals exceeded 25mm over parts of Sierra Leone, local areas in Cote d'Ivoire, parts of DRC, northeastern Ethiopia, western Tanzania, and local areas in Namibia, South Africa and Madagascar.

2.2. Weather assessment for the current day (April 2, 2019)

Enhanced convective clouds are observed across western equatorial Africa, parts of the Lake Victoria region, local areas in Ethiopia and Tanzania, and portions of Southern Africa.

