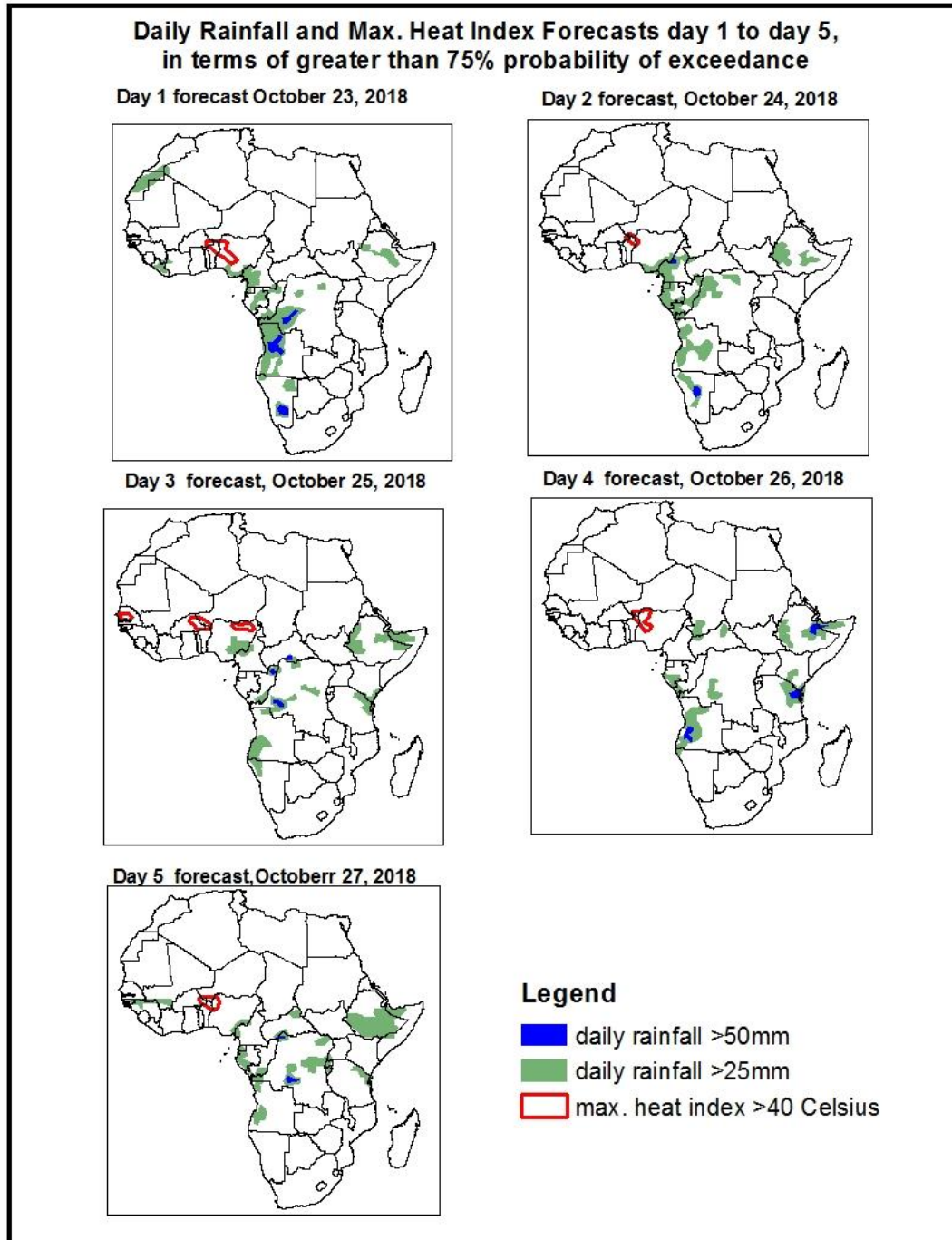


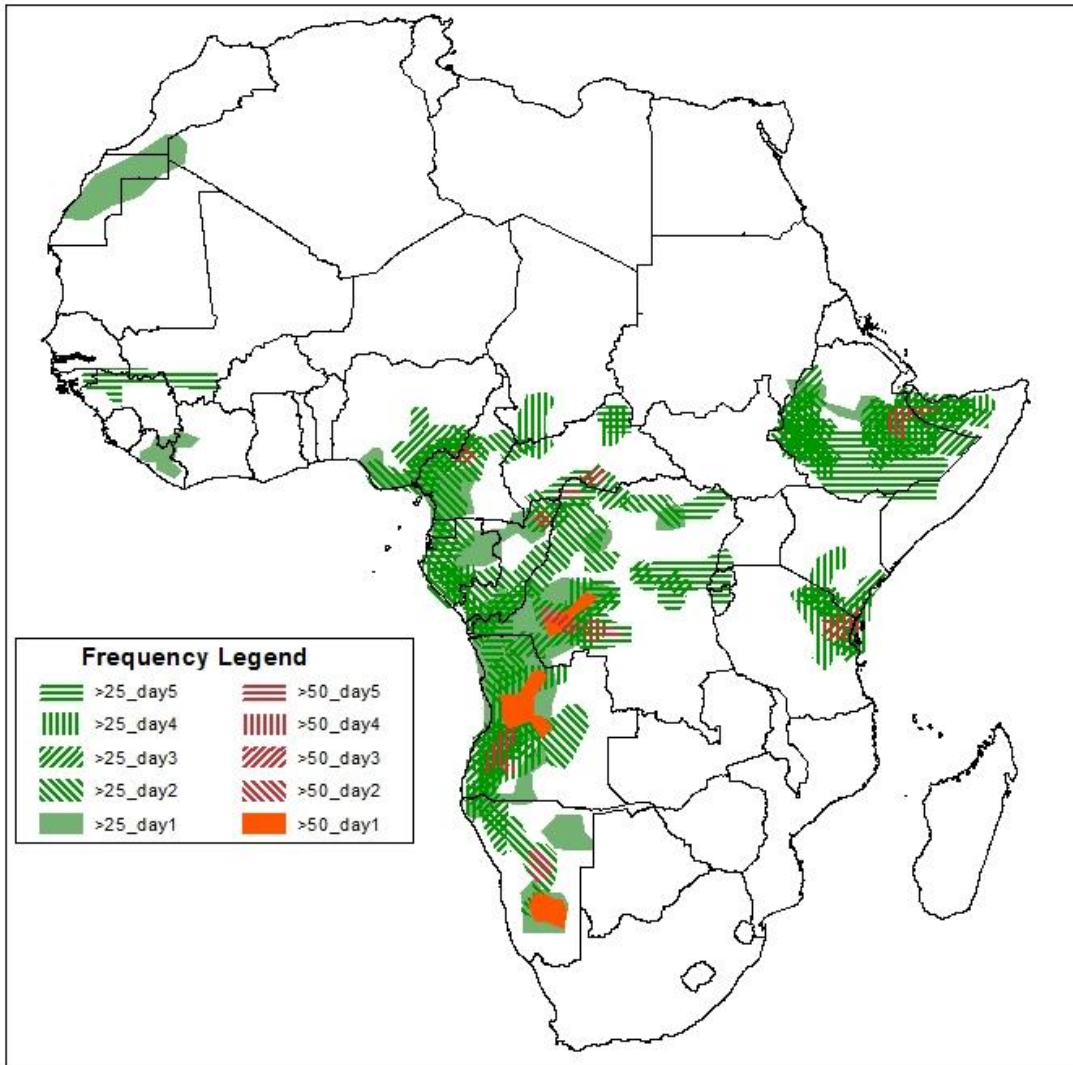
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on October 22, 2018)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Oct 23, –Oct 27, 2018)**

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 23 - 27 Octoberr, 2018.

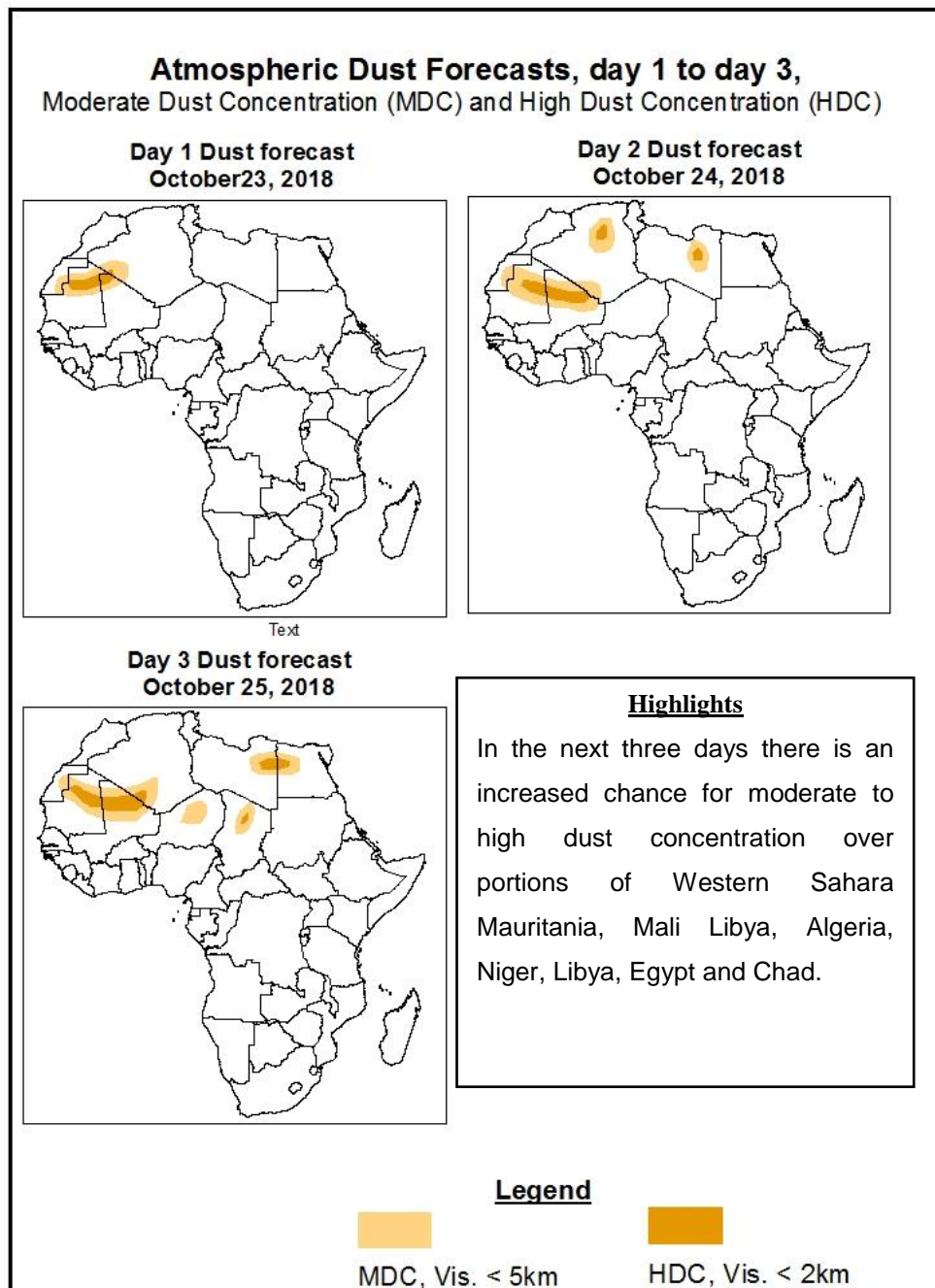


### **Highlights**

- In the next five days stronger South easterlies to easterly flow from the Indian Ocean are likely to keep the Congo Air Boundary (CAB) west of its normal position. Lower level convergence in the Greater Horn of Africa is expected to maintain moderate to heavy rainfall in the region during the forecast period. There is an increased chance for 2 or more days of moderate to heavy rainfall over parts of western countries of Central and southern Africa and the Greater Horn of Africa countries.
- There is an increased chance for temperature heat index values to exceed 40<sup>0</sup>C over local areas of Senegal, Niger, Burkina Faso, Benin, and Nigeria.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Oct 23 – October 27, 2018)

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: October 23 –27 October, 2018**

The Azores High Pressure system over the North Atlantic Ocean is expected to strengthen its central pressure value is expected to increase from 1035hPa to 1041hPa throughout the forecast period.

The St. Helena High Pressure system over the Southeast Atlantic Ocean is moving towards the southern sub-continent. Its central pressure value is expected to increase from 1020hPa to 1023hPa through 120hrs.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to strengthen through 72hrs and start weakening towards the end of the forecast period as it progresses southeast of the Indian Ocean. Developing Mascarene high Pressure system over the Southwest Indian Ocean is expected to strengthen. Its central pressure value is expected to increase from 1029hPa to 1037hPa.

At 925hPa, dry strong northeasterly to easterly flow is expected to prevail over most parts of northern Africa, and some areas of the Sahel region. Southwesterly to westerly monsoon flow from the Atlantic Ocean is expected to remain weak. Moist Southeasterly to easterly flow from the Indian Ocean is expected to prevail over most parts of Eastern and southern Africa.

At 850hPa, lower-level wind convergence of northeasterly to easterly flow and Southeasterly to easterly flow is expected to remain active during the forecast period over the Greater Horn of Africa. Stronger easterlies from the Indian Ocean are likely to keep the Congo Air Boundary (CAB) west of its normal position.

In the next five days stronger South easterlies to easterly flow from the Indian Ocean are likely to keep the Congo Air Boundary (CAB) west of its normal position. Lower level convergence in the Greater Horn of Africa is expected to maintain moderate to heavy rainfall in the region during the forecast period. There is an increased chance for 2 or more days of moderate to heavy rainfall over parts of western countries of Central and southern Africa and the Greater Horn of Africa countries. There is an increased chance for temperature heat index values to exceed 40<sup>0</sup>C over local areas of Senegal, Niger, Burkina Faso, Benin, and Nigeria.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (October 21, 2018)

Daily rainfall of above 25mm was observed over portion of western countries of central Africa.

### 2.2. Weather assessment for the current day (October 22, 2018)

Intense convective clouds are observed over Gulf of Guinea Coastal Areas, Central African countries Greater Horn of Africa.

