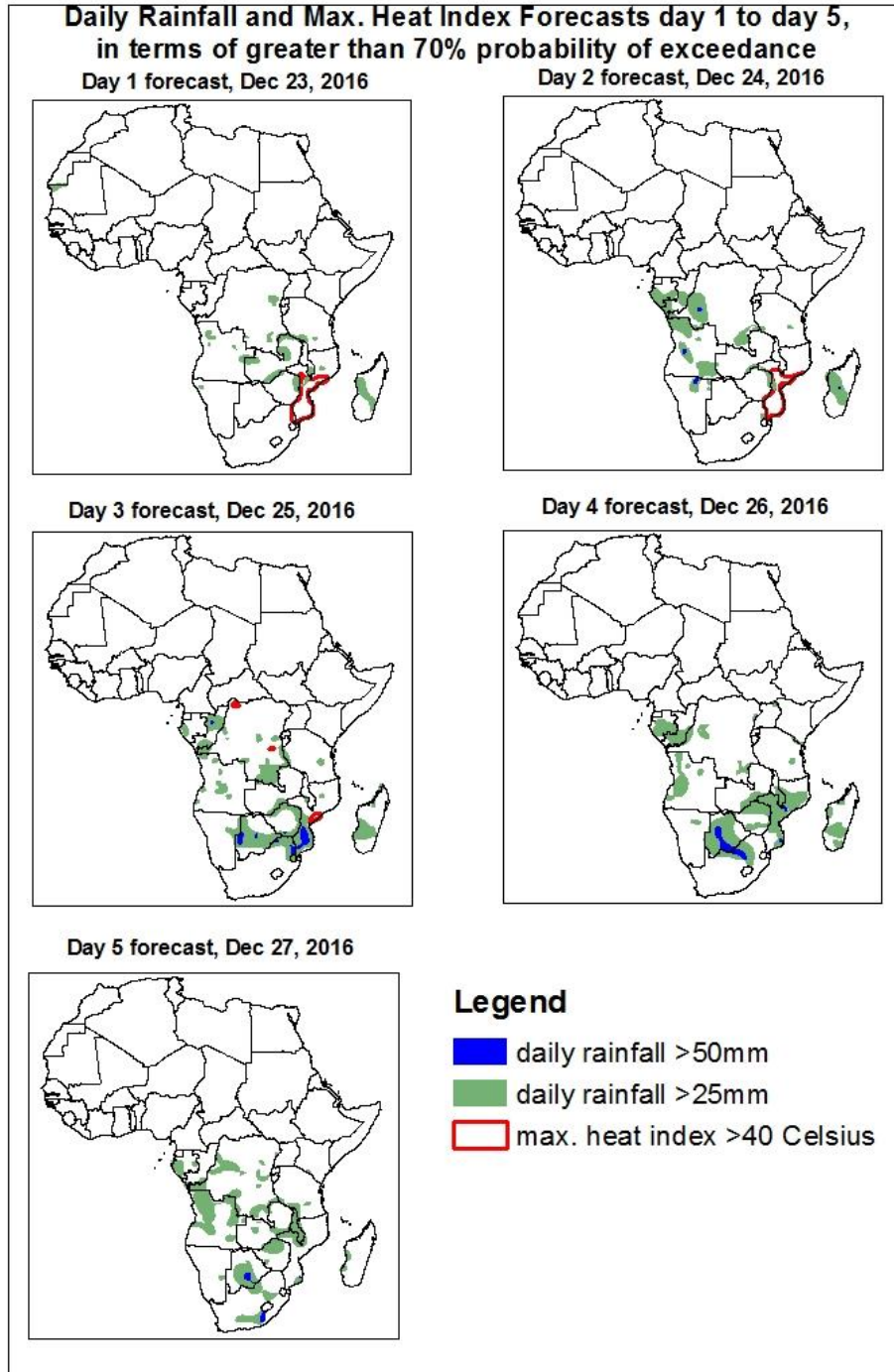


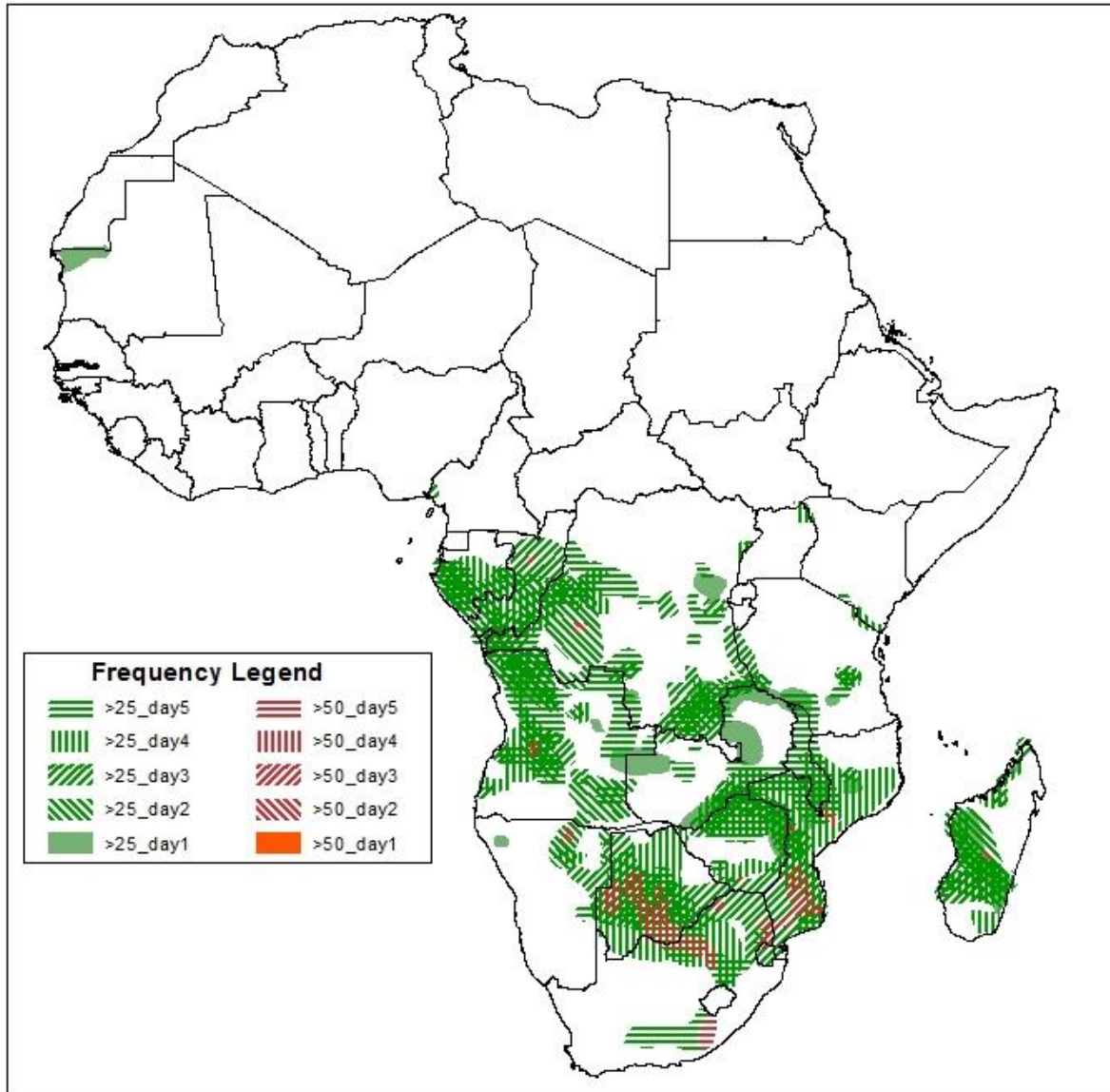
**1. Rainfall, Heat Index and Dust Concentration Forecasts, (Issued on Dec 22, 2016)**

**1.1. Daily Rainfall and Maximum Heat Index Forecasts (valid: Dec 23 – Dec 27, 2016)**

The forecasts are expressed in terms of high probability of precipitation (POP) and high probability of maximum heat index, based on the NCEP/GFS, ECMWF and the NCEP Global Ensemble Forecasts System (GEFS) and expert assessment.



## Five Days Rainfall Forecast Summary Dec 23 - Dec 27, 2016

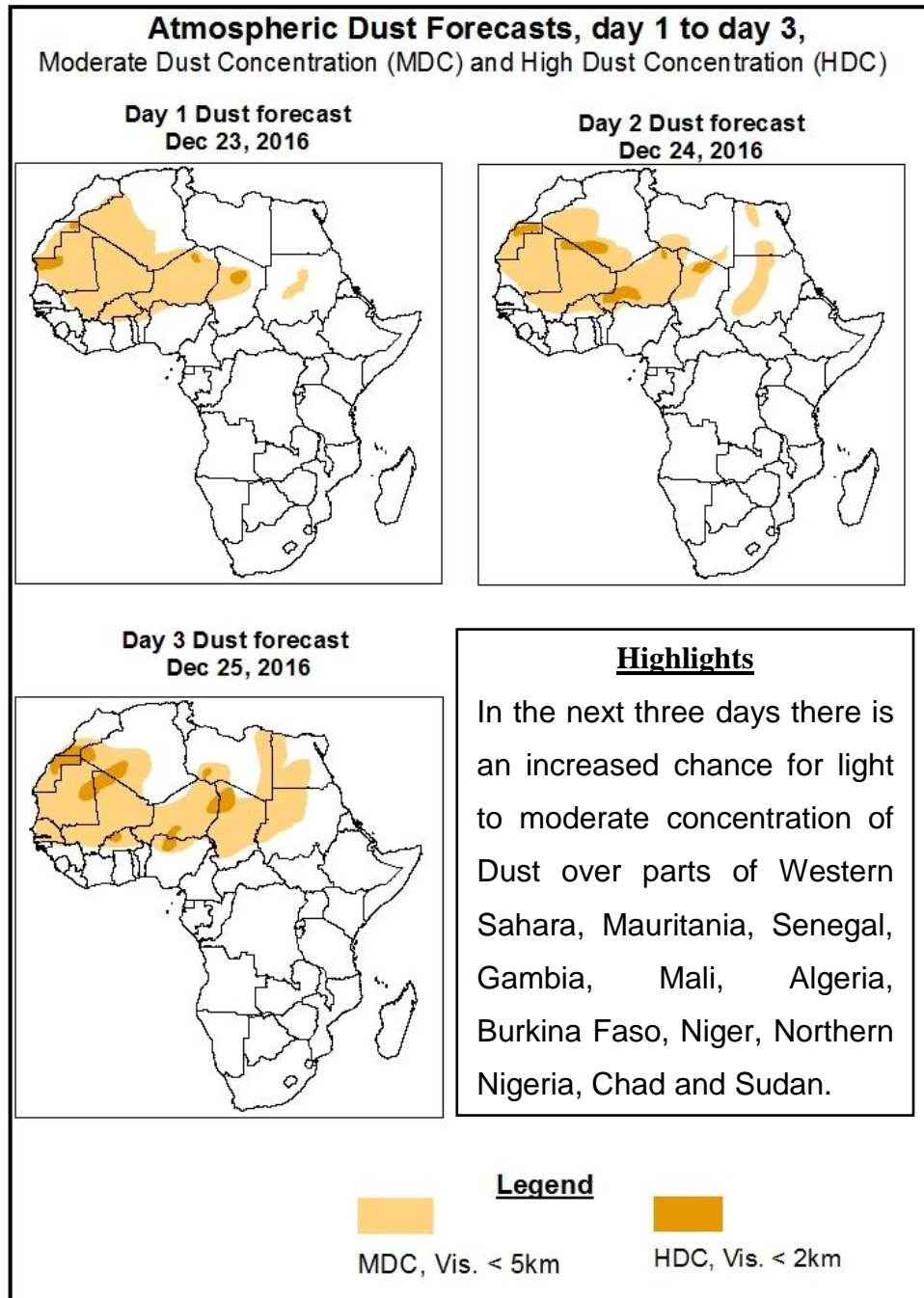


### **Highlights**

In the next five days, lower level wind convergences across the Northern parts of the South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over the portions of Gabon, Congo, DRC, Angola, Botswana, Zimbabwe, Mozambique, Malawi, and local areas of Zambia, Namibia, Tanzania, South Africa and Madagascar.

## 1.2. Atmospheric Dust Concentration Forecasts (valid: Dec 23 – Dec 25, 2016)

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: Dec 23–Dec 27, 2016**

The Azores High Pressure system over the North Atlantic Ocean is expected to weaken, with its value of the central pressure decreasing from 1040hPa to 1036hPa in the next 72 hours, intensify to 1049hPa during the remaining forecast period.

The St. Helena High Pressure system over the Southeast of the Atlantic Ocean is expected to intensify, with its value of the central pressure increasing from 1022hPa to 1025hPa in the next 48 hours, weaken to 1021hPa in the next 72 hours and intensify to 1024hPa during the remaining forecast period.

The Mascarene High Pressure system over the Southwest Indian Ocean is expected to intensify, with its value of the central pressure increasing from 1018hPa to 1025hPa during the forecast period.

At 925hPa, strong dry Northerly to Easterly winds may lead from light to moderate dust concentration over parts of Western Sahara, Mauritania, Senegal, Gambia, Mali, Algeria, Burkina Faso, Niger, Northern Benin, Northern Nigeria, Chad, Sudan, Egypt and Libya.

At 850hPa level, lower level wind convergences are expected to prevail over Cameroon, Congo, DRC, Angola, Namibia and Botswana.

In the next five days, lower level wind convergences across the Northern parts of the South African countries are expected to enhance rainfall in their respective regions. Therefore, there is an increased chance for two or more days of light to moderate rainfall over the portions of Gabon, Congo, DRC, Angola, Botswana, Zimbabwe, Mozambique, Malawi, and local areas of Zambia, Namibia, Tanzania, South Africa and Madagascar.

## 2.0. Previous and Current Day Weather over Africa

### 2.1. Weather assessment for the previous day (Dec 21, 2016)

Light to moderate rainfall was observed over portion of Algeria and Madagascar, local areas of Angola and Zambia.

### 2.2. Weather assessment for the current day (Dec 22, 2016)

Intense convective clouds are observed over portions of Congo, DRC, Angola, Zambia, Namibia, Botswana, Zimbabwe, Mozambique, Malawi, Tanzania, South Africa, Swaziland and Madagascar.

