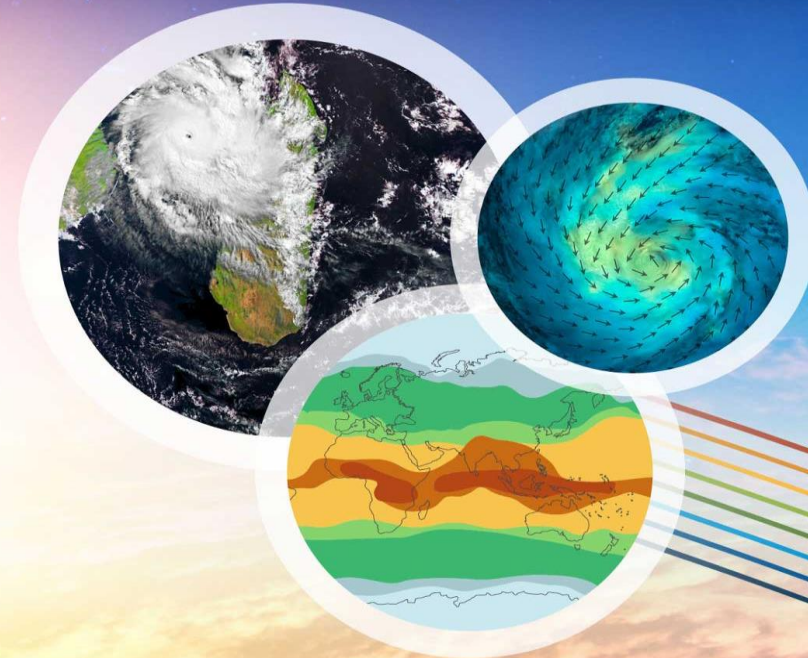
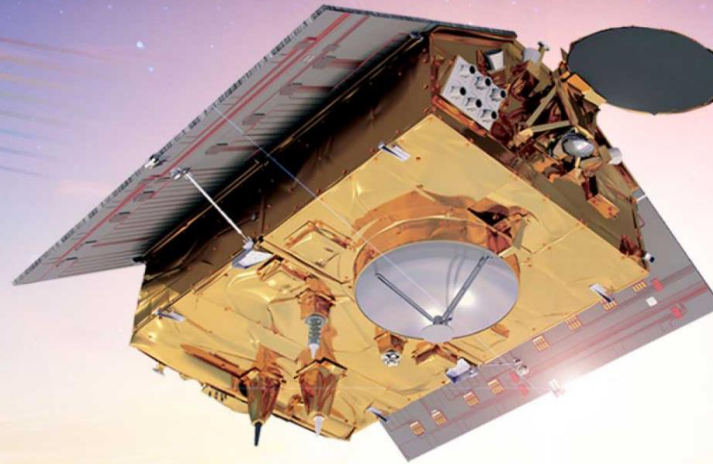


## African Centre of Meteorological Applications for Development (ACMAD)

## Continental Multi-Hazard & Advisory Bulletin

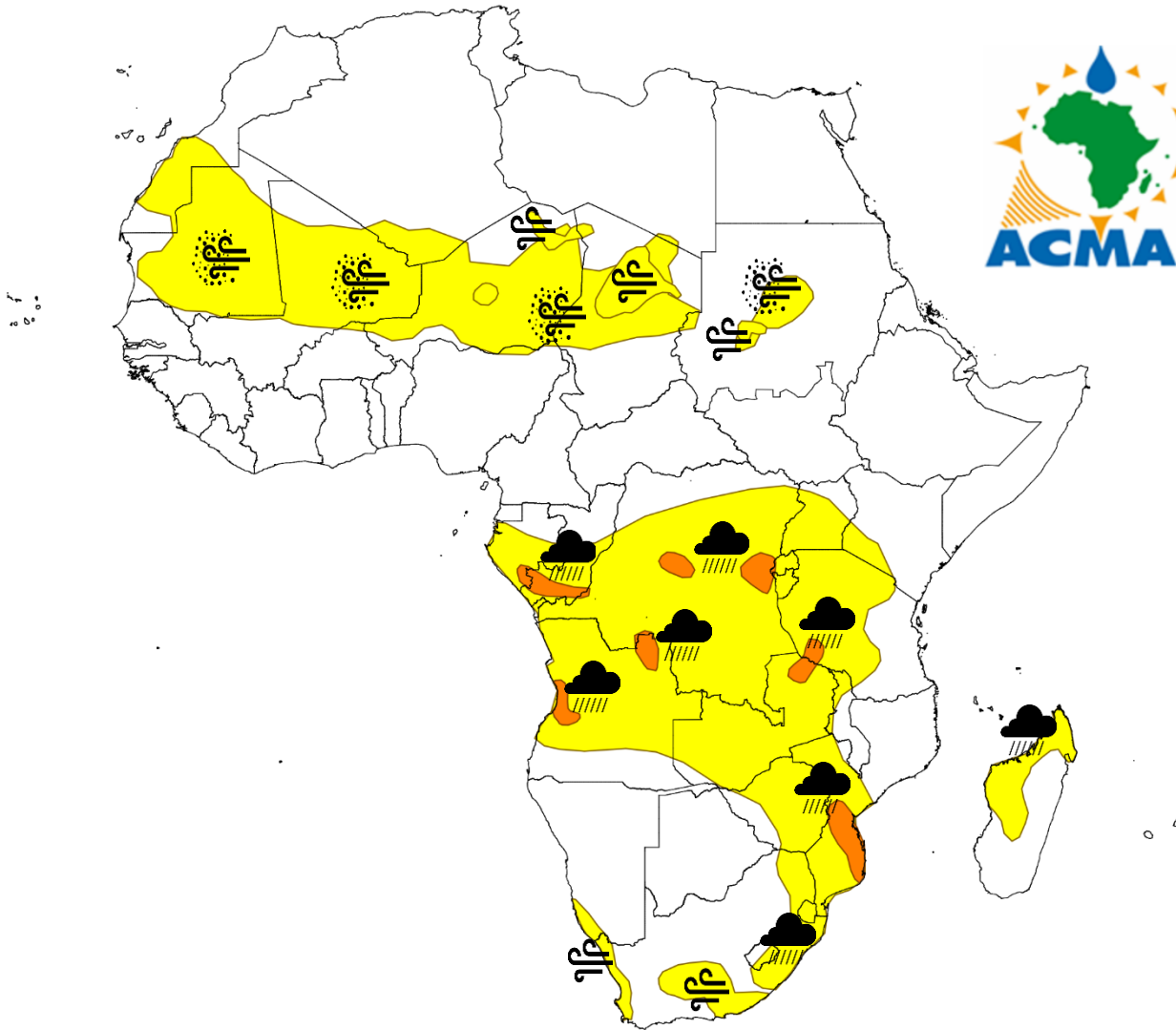






**Issued on: December 11<sup>th</sup> 2023**  
**Validity period: December 12<sup>th</sup> to 16<sup>th</sup>, 2023**

# MULTI-HAZARD OUTLOOK

**Validity: 2023-12-12**

issued on 2023-12-11

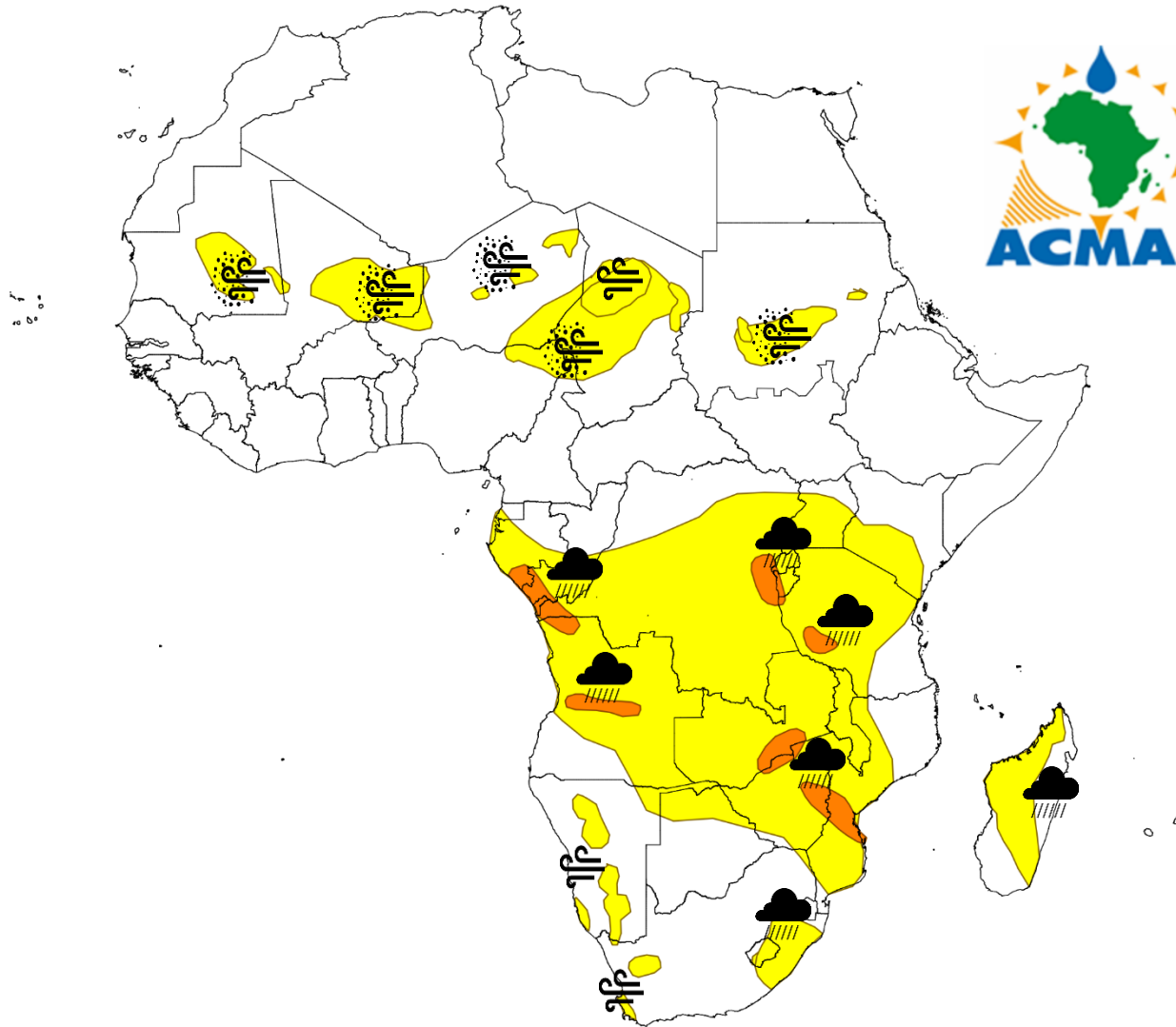






 Rain	 Wind	 Dust	 Meningitis
Very heavy >100mm	Very strong >80kmh <sup>-1</sup>	Very heavy >1000µg m <sup>-3</sup>	Very likely
Heavy 50-100mm	Strong >65kmh <sup>-1</sup>	Heavy >600µg m <sup>-3</sup>	Likely
Moderate 10 - 49mm	Moderate >50kmh <sup>-1</sup>	Moderate >400µg m <sup>-3</sup>	Less likely
Light 1 - 10mm	Light <50kmh <sup>-1</sup>	Light <200µg m <sup>-3</sup>	

# MULTI-HAZARD OUTLOOK

**Validity: 2023-12-13**

issued on 2023-12-11

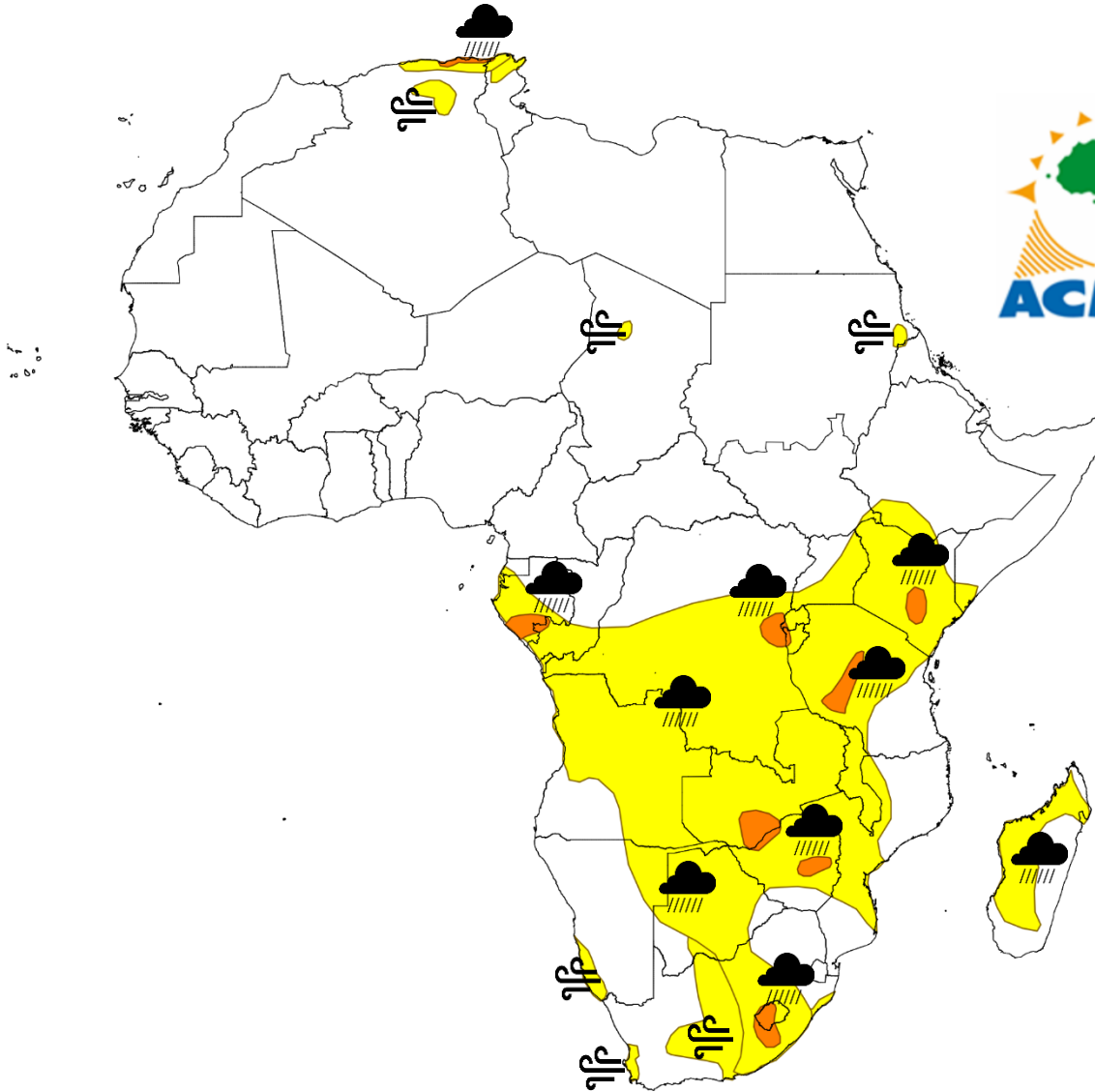






 Rain	 Wind	 Dust	 Meningitis
Very heavy >100mm	Very strong >80kmh <sup>-1</sup>	Very heavy >1000µg m <sup>-3</sup>	Very likely
Heavy 50-100mm	Strong >65kmh <sup>-1</sup>	Heavy >600µg m <sup>-3</sup>	Likely
Moderate 10 - 49mm	Moderate >50kmh <sup>-1</sup>	Moderate >400µg m <sup>-3</sup>	Less likely
Light 1 - 10mm	Light <50kmh <sup>-1</sup>	Light <200µg m <sup>-3</sup>	

# MULTI-HAZARD OUTLOOK

**Validity: 2023-12-14**

issued on 2023-12-11

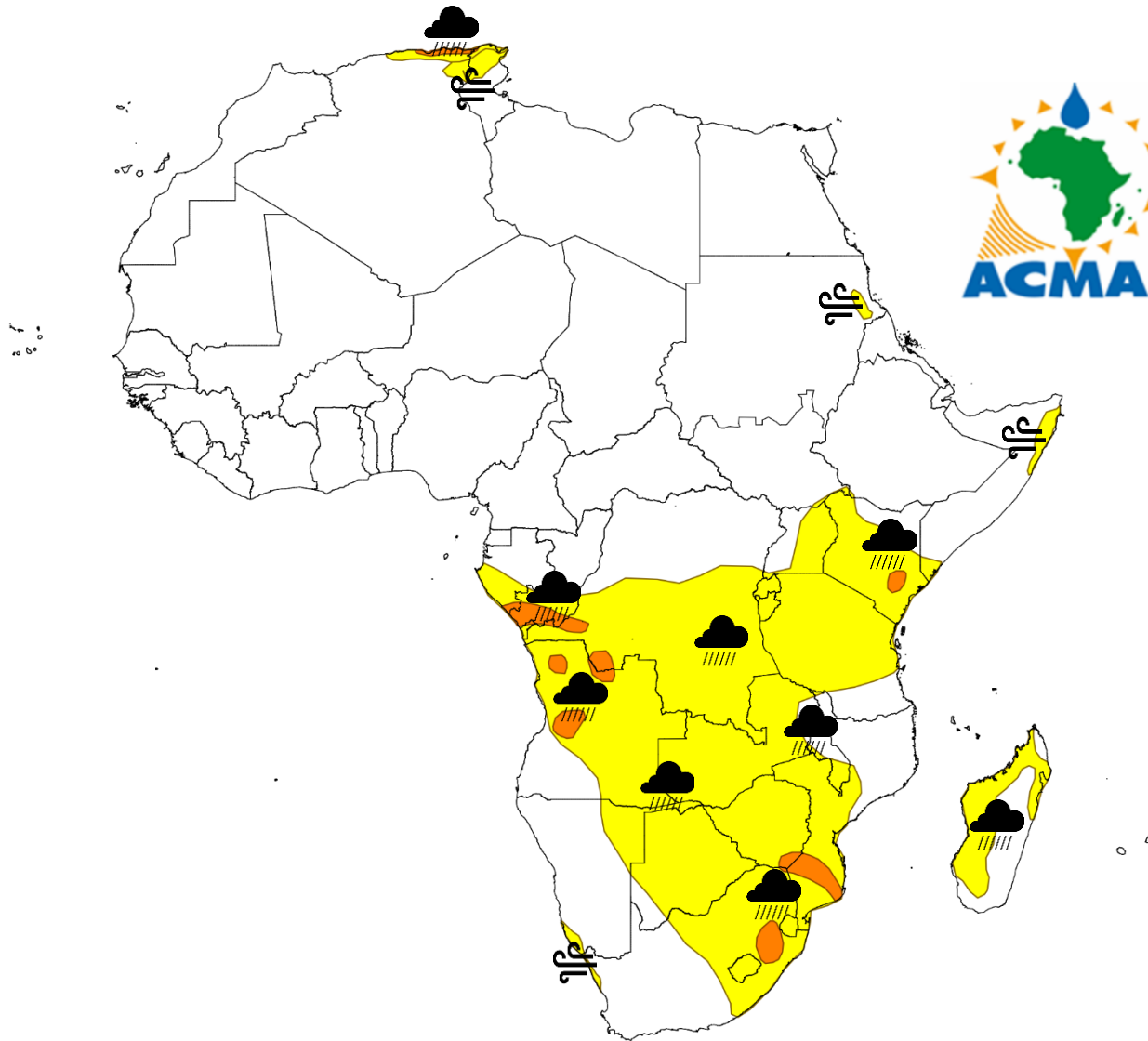






 Rain	 Wind	 Dust	 Meningitis
Very heavy >100mm	Very strong >80kmh <sup>-1</sup>	Very heavy >1000µg m <sup>-3</sup>	Very likely
Heavy 50-100mm	Strong >65kmh <sup>-1</sup>	Heavy >600µg m <sup>-3</sup>	Likely
Moderate 10 - 49mm	Moderate >50kmh <sup>-1</sup>	Moderate >400µg m <sup>-3</sup>	Less likely
Light 1 - 10mm	Light <50kmh <sup>-1</sup>	Light <200µg m <sup>-3</sup>	

# MULTI-HAZARD OUTLOOK

**Validity: 2023-12-15**

issued on 2023-12-11

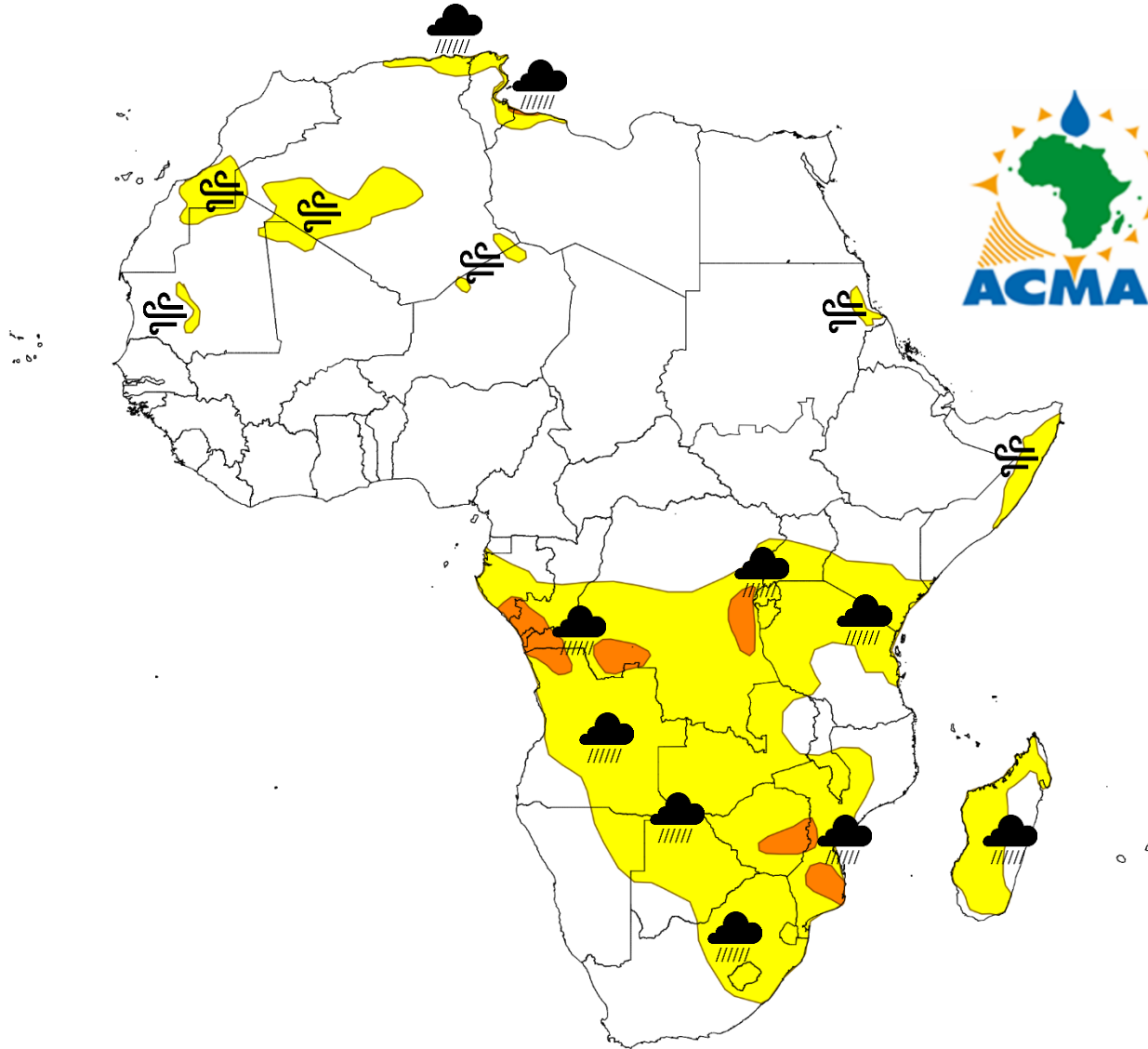






 Rain	 Wind	 Dust	 Meningitis
Very heavy >100mm	Very strong >80kmh <sup>-1</sup>	Very heavy >1000µg m <sup>-3</sup>	Very likely
Heavy 50-100mm	Strong >65kmh <sup>-1</sup>	Heavy >600µg m <sup>-3</sup>	Likely
Moderate 10 - 49mm	Moderate >50kmh <sup>-1</sup>	Moderate >400µg m <sup>-3</sup>	Less likely
Light 1 - 10mm	Light <50kmh <sup>-1</sup>	Light <200µg m <sup>-3</sup>	

# MULTI-HAZARD OUTLOOK

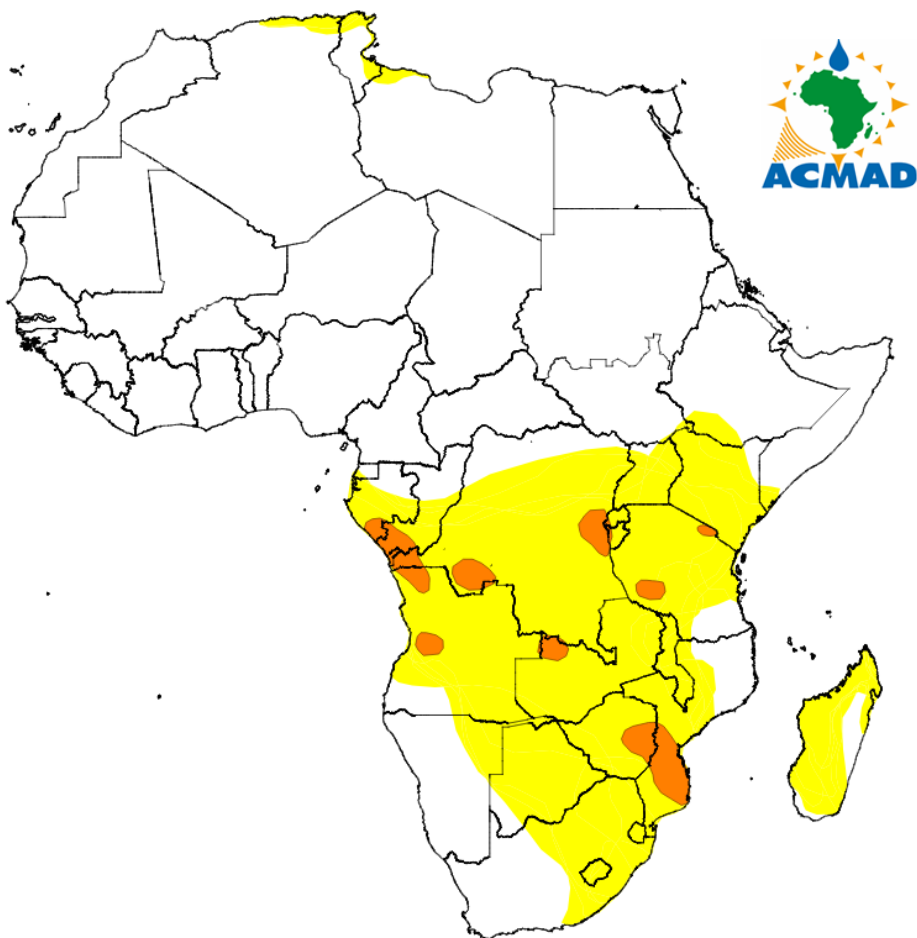
**Validity: 2023-12-16**

issued on 2023-12-11



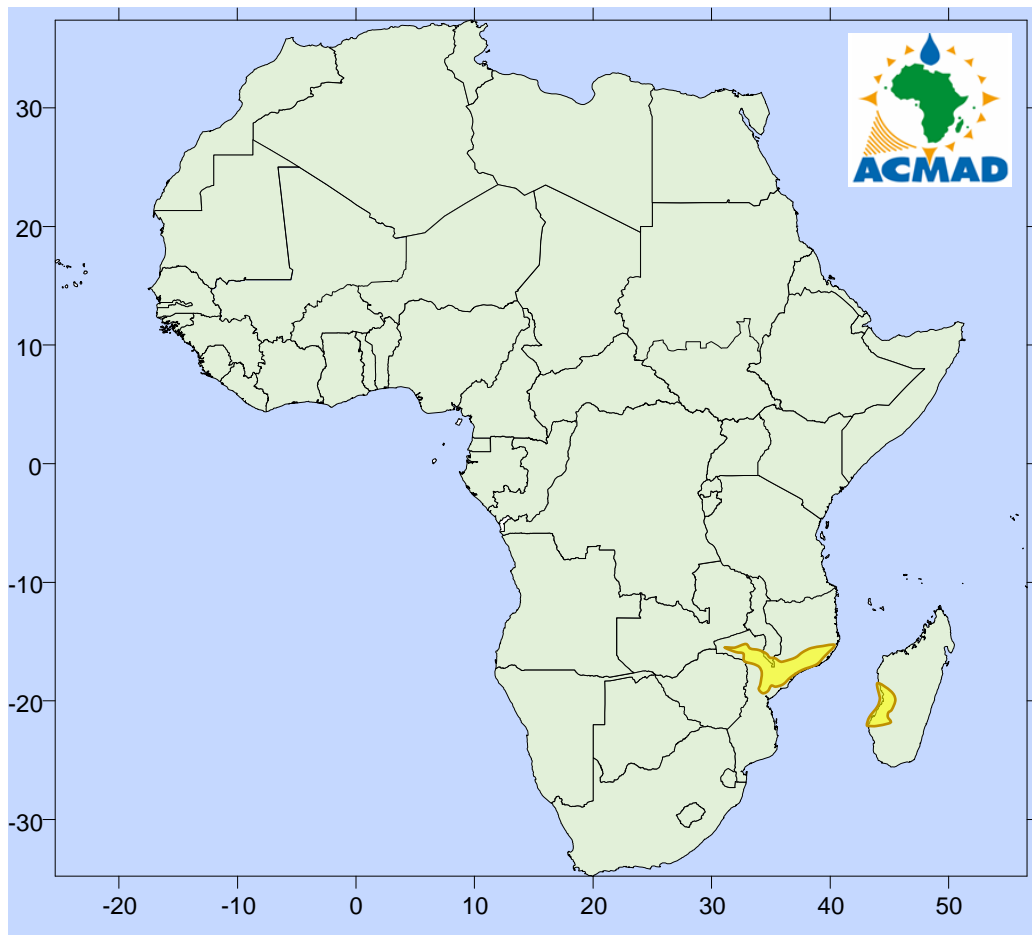
 Rain	 Wind	 Dust	 Meningitis
Very heavy >100mm	Very strong >80kmh <sup>-1</sup>	Very heavy >1000µg m <sup>-3</sup>	Very likely
Heavy 50-100mm	Strong >65kmh <sup>-1</sup>	Heavy >600µg m <sup>-3</sup>	Likely
Moderate 10 - 49mm	Moderate >50kmh <sup>-1</sup>	Moderate >400µg m <sup>-3</sup>	Less likely
Light 1 - 10mm	Light <50kmh <sup>-1</sup>	Light <200µg m <sup>-3</sup>	

**HIGHLIGHT:** Heavy rainfall is expected in Gabon, Congo, Angola, D.R.C, Rwanda, Burundi, Tanzania, Zambia, Zimbabwe, and Mozambique



	Phenomenon	Hazard	Potentials Impacts	DRM Measures / Advices
	In next 5 days accumulated rainfall (50-100mm) is likely,	Moderate rainfall, flash flood, riverine flooding, landslides, soil erosion and lightning likely	Displacements of people due to floods, outbreak of water borne diseases, damage of infrastructures (roads, bridges, ...)	DRM authorities to keep informed about the development of the meteorological situation and raise awareness, taking action is more likely, the situation needs to be monitored closely with NHMSs
	In next 5 days accumulated rainfall (100 – 150mm) is very likely,	Heavy rainfall, flash flood, riverine flooding, landslides, soil erosion and lightning, strong winds,	Displacements of people due to floods, outbreak of water borne diseases, damage of infrastructures (roads, bridges, ...)	Update Flood contingency plans, Improve water management in reservoirs and dams, DRM authorities be ready to take adequate actions, DRM to be continuously in touch with NHMSs to be informed of the detailed expected meteorological conditions.
	In next 5 days accumulated rainfall (>150mm) is very likely,	Extreme heavy precipitation, flash flood, riverine flooding, landslides, soil erosion and lightning, strong winds, severe thunderstorms	Loss of lives, Injuries, Displacements of people due to floods, outbreak of water borne diseases, damage of infrastructures (roads, bridges, ...)	Civil Protection service and DRM authorities to activate contingency plan for disaster preparedness and emergency response (awareness, assistance to victims, search & rescue operations ), and be in close touch with NHMS for further accuracy at the national level.

### **HIGHLIGHT:** Light heat wave is expected in Mozambique, Malawi, and Madagascar



	Phenomenon	Hazard	Potentials Impacts	DRM Measures / Advices
	In next 5 days apparent temperature >40°C to 44°C are expected for two days	Heat wave Conditions persists on 2days	Moderate temperature heat is tolerable for general public but moderate health concern for vulnerable people(people chronic diseases, infants and elderly)	Civil Protection Services to monitor closely the heat wave situation with NHMSs.
	apparent temperature 40°C to 44°C are expected for more than 2 days	Moderate heat wave conditions are likely to persist for 3days ore more with varied severity	High temperature Increased likelihood of heat illness symptoms in people who are either exposed to sun for a prolonged period or doing heavy work High health concern for vulnerable people	Civil Protection services to take adaptive and preventive measures to the heat wave situation with NHMSs.
	Apparent temperatures >45°C are expected for more than 2 days	Severe heat wave is very likely to persist for more than 2 days,	Very high likelihood of developing heat illness and heat stroke in all ages	Civil Protection services to take adaptive and preventive measures to the strong heat wave situation with NHMSs.

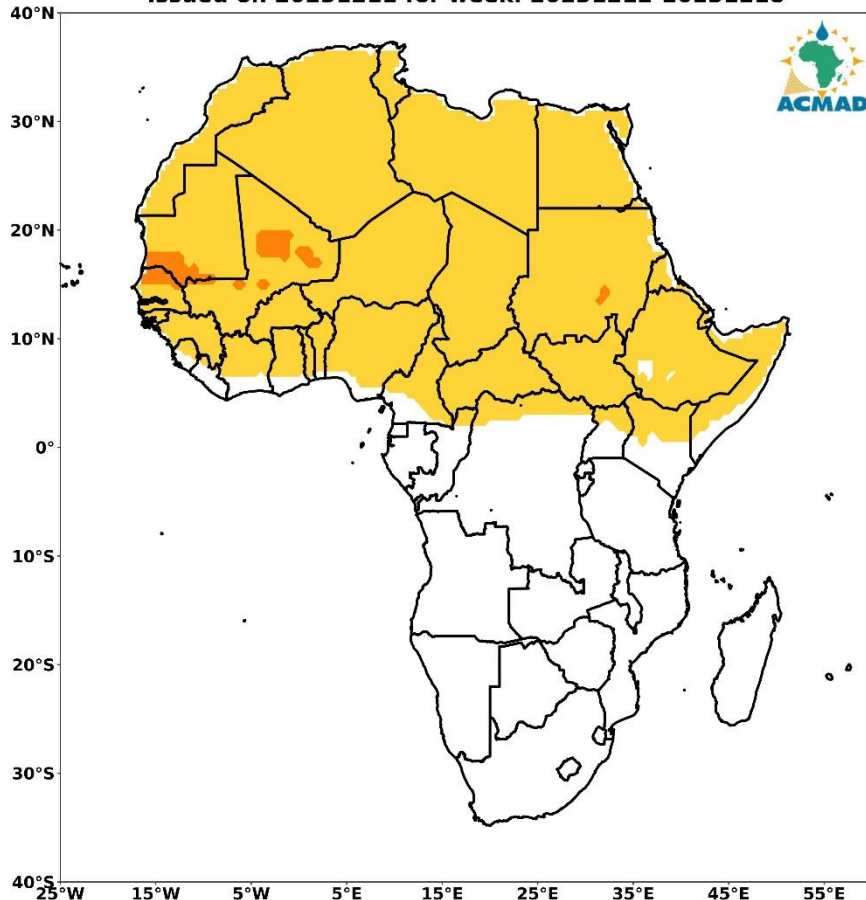
**Disclaimer:**

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**HIGHLIGHT:** Emergence of Meningitis cases likely in Senegal, Mauritania, Mali, and Sudan.

**VIGILANCE MAP FOR MENINGITIS OUTBREAKS IN AFRICA**  
issued on 20231211 for week: 20231212-20231218



	Phenomenon	Hazard	Potentials Impacts	Advisory / Measures
	<ul style="list-style-type: none"> <li>- Dust concentration below 150<math>\mu\text{g}/\text{m}^3</math></li> <li>- Relative humidity above 40%</li> <li>- Temperature below 27°C</li> </ul>	Emergence of Meningitis cases not likely	Potential pressure on the health system	Routine surveillance systems at regional and national levels
	<ul style="list-style-type: none"> <li>- Dust concentration between 150 to 400<math>\mu\text{g}/\text{m}^3</math></li> <li>- Relative humidity between 20 &amp; 40%</li> <li>- Temperature above 27°C</li> </ul>	Emergence of Meningitis cases very likely	Loss of life, high potential pressure on the health system	Activation of surveillance systems at regional and national levels
	<ul style="list-style-type: none"> <li>- Dust Concentration at least 400<math>\mu\text{g}/\text{m}^3</math> and above</li> <li>- Relative humidity less than 20%</li> <li>- Temperature above 30°C</li> </ul>	Emergence of Meningitis cases very likely and epidemic status possible	Loss of life, increased pressure on the health system	Strengthen and increase meningitis surveillance systems at both regional and national levels

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## Versions

Version	Date	By	Descriptions
V0	11-12-2023	WWFD forecasters	First draft for « Briefing », with all forecaster's contributions
Last	11-12-2023	Dr. Pierre Kamsu	Final Review



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**ClimSA**

INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME



An initiative of the Organisation of African, Caribbean and Pacific States funded by the European Union



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