"The climate of Africa in 2021: Trends, impacts and Early Warning system for building resilience in Africa"

October 31 2022

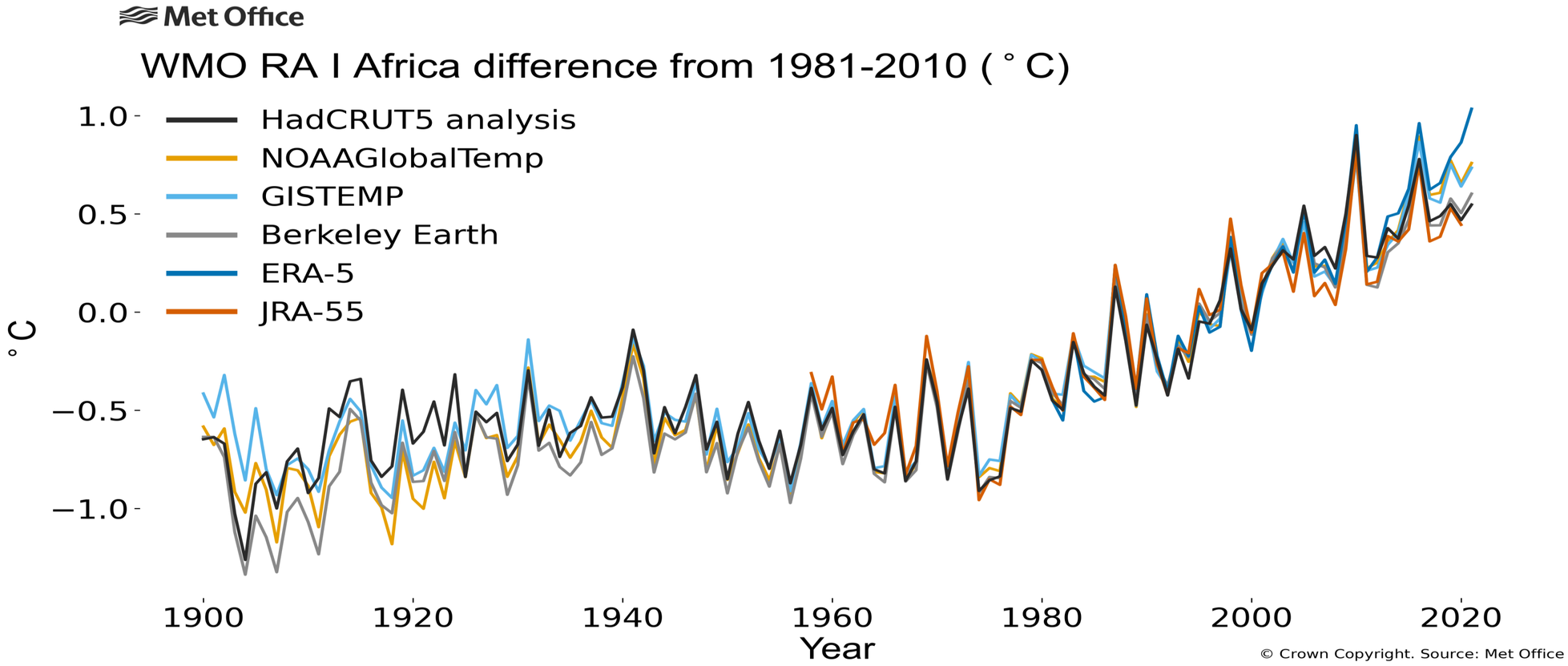
Radisson Blue Niamey-Niger

ClimSA

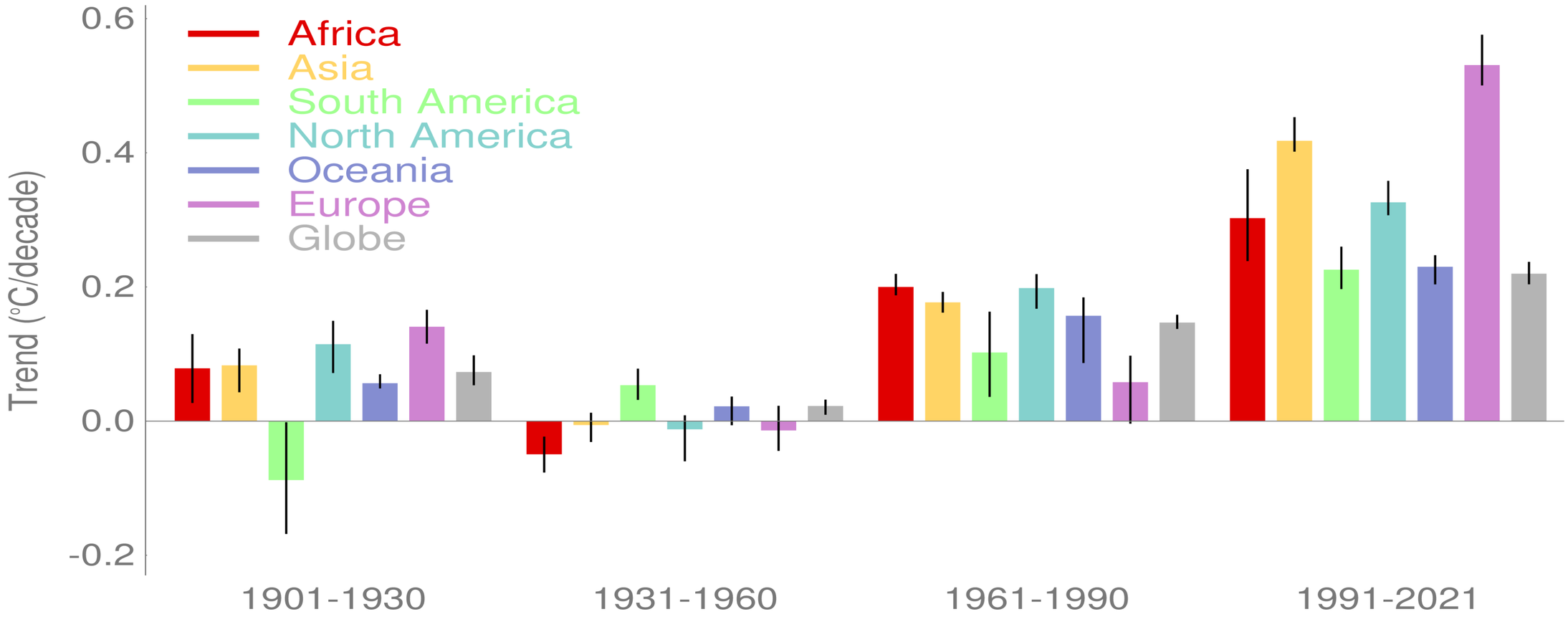
INTRA-ACP CLIMATE SERVICES AND RELATED APPLICATIONS PROGRAMME

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

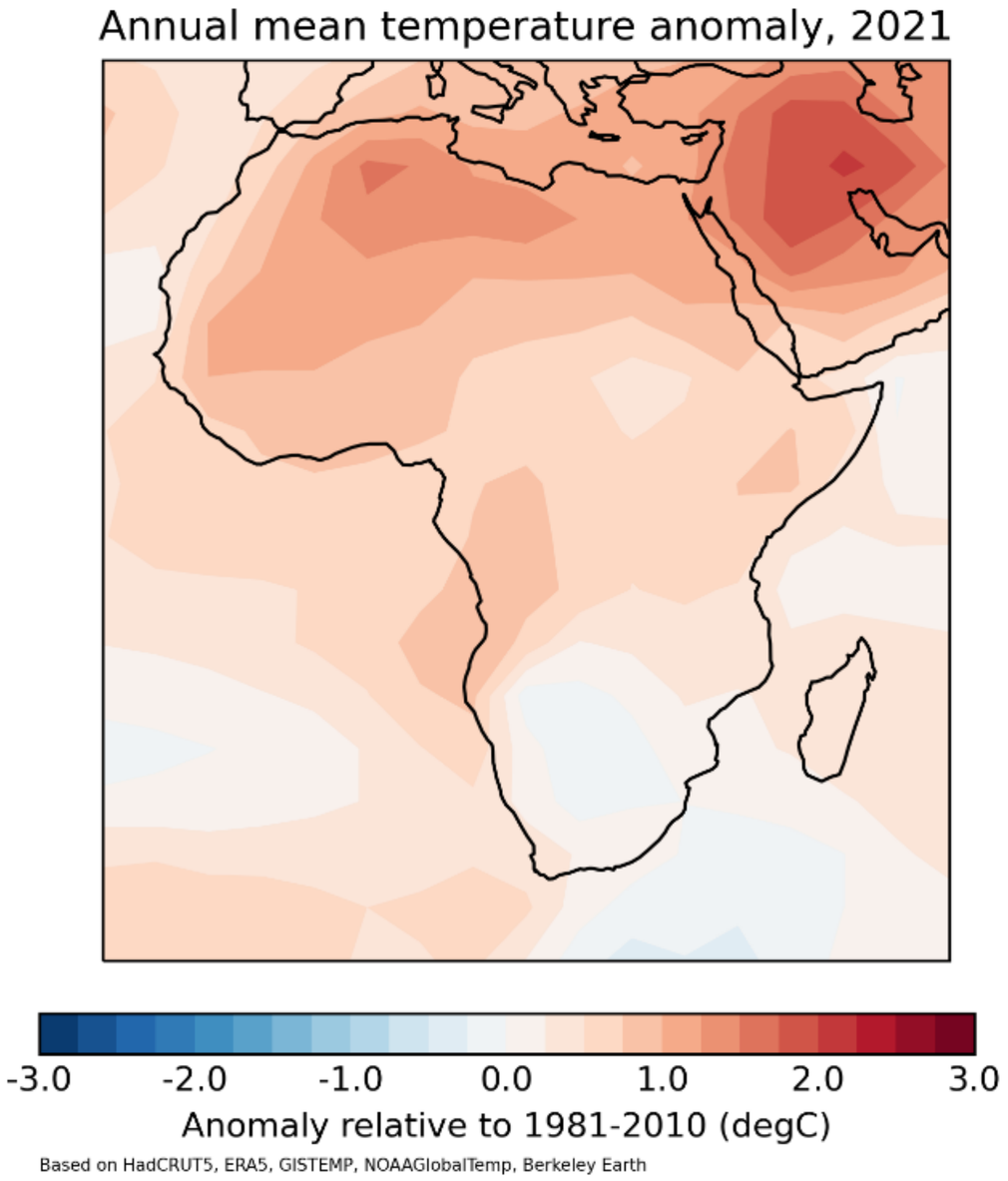
Warming in Africa



Warming trends for continents



1.1.Temperature anomalies across Africa



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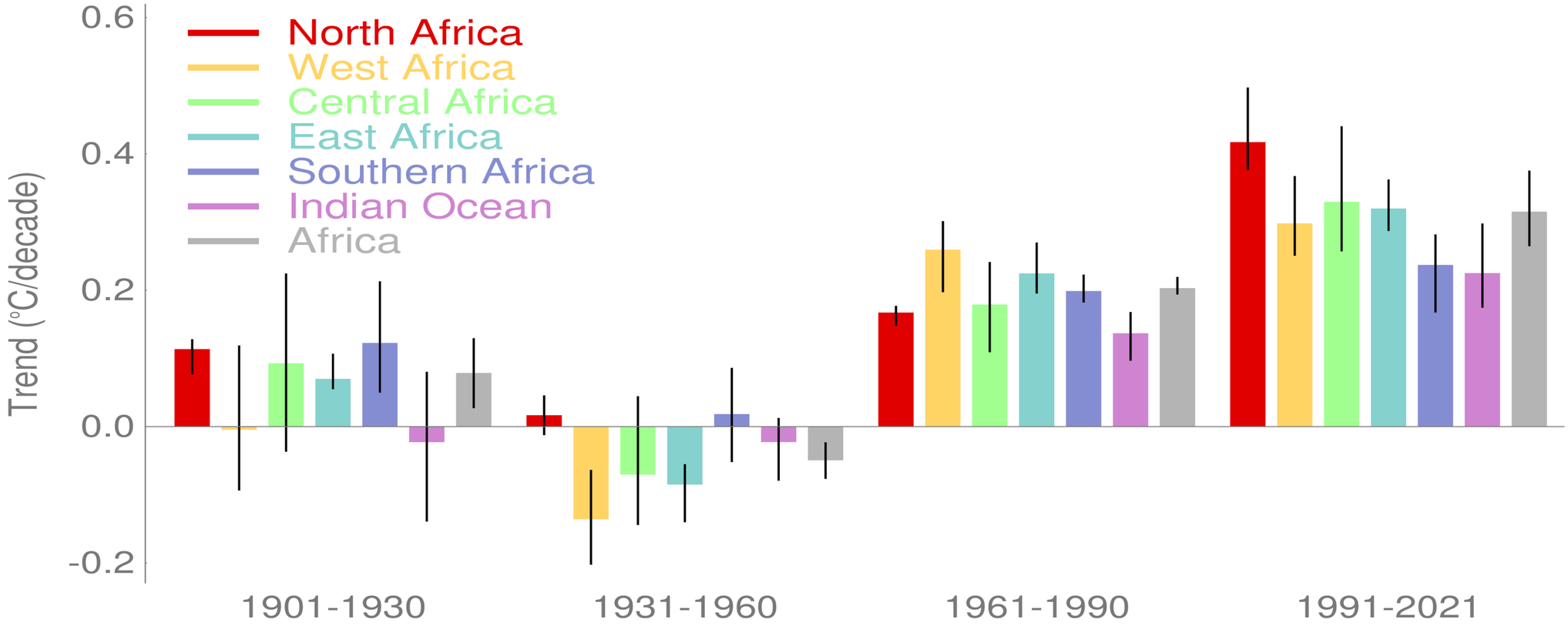
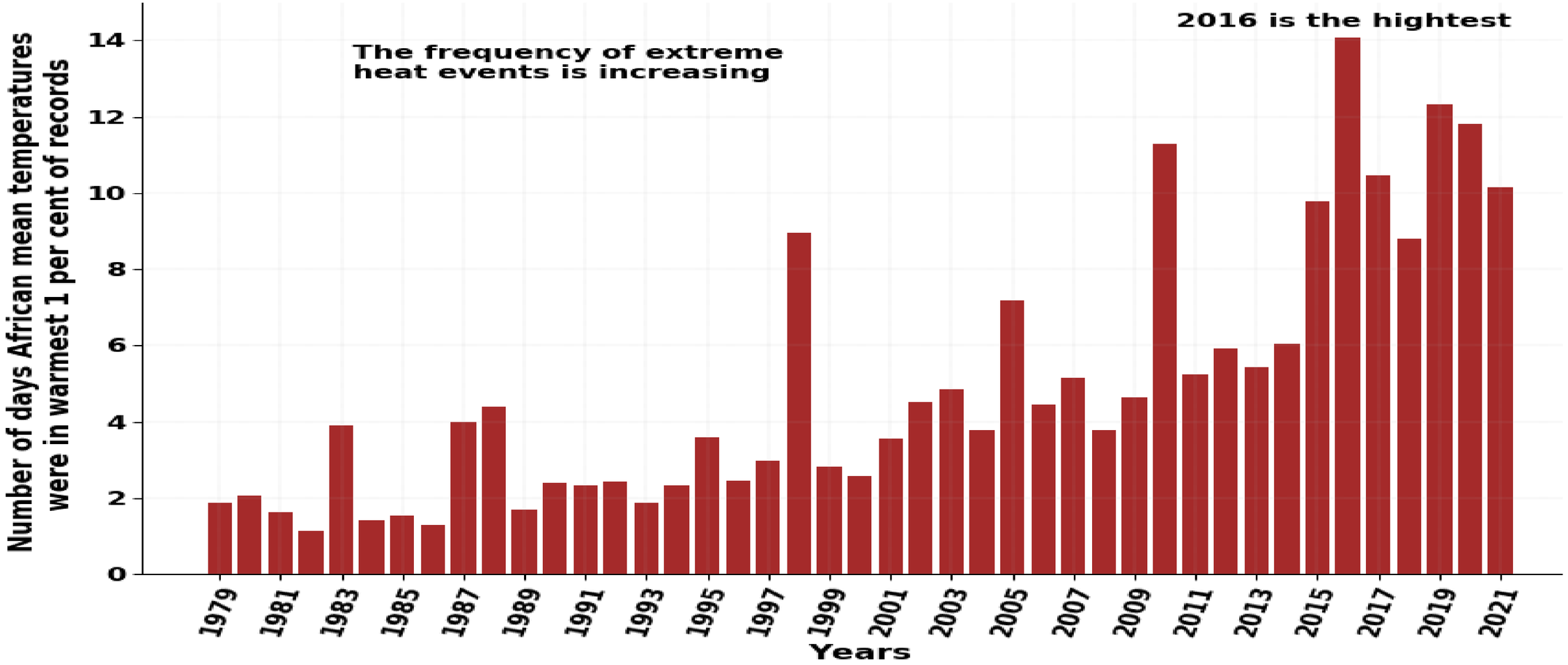
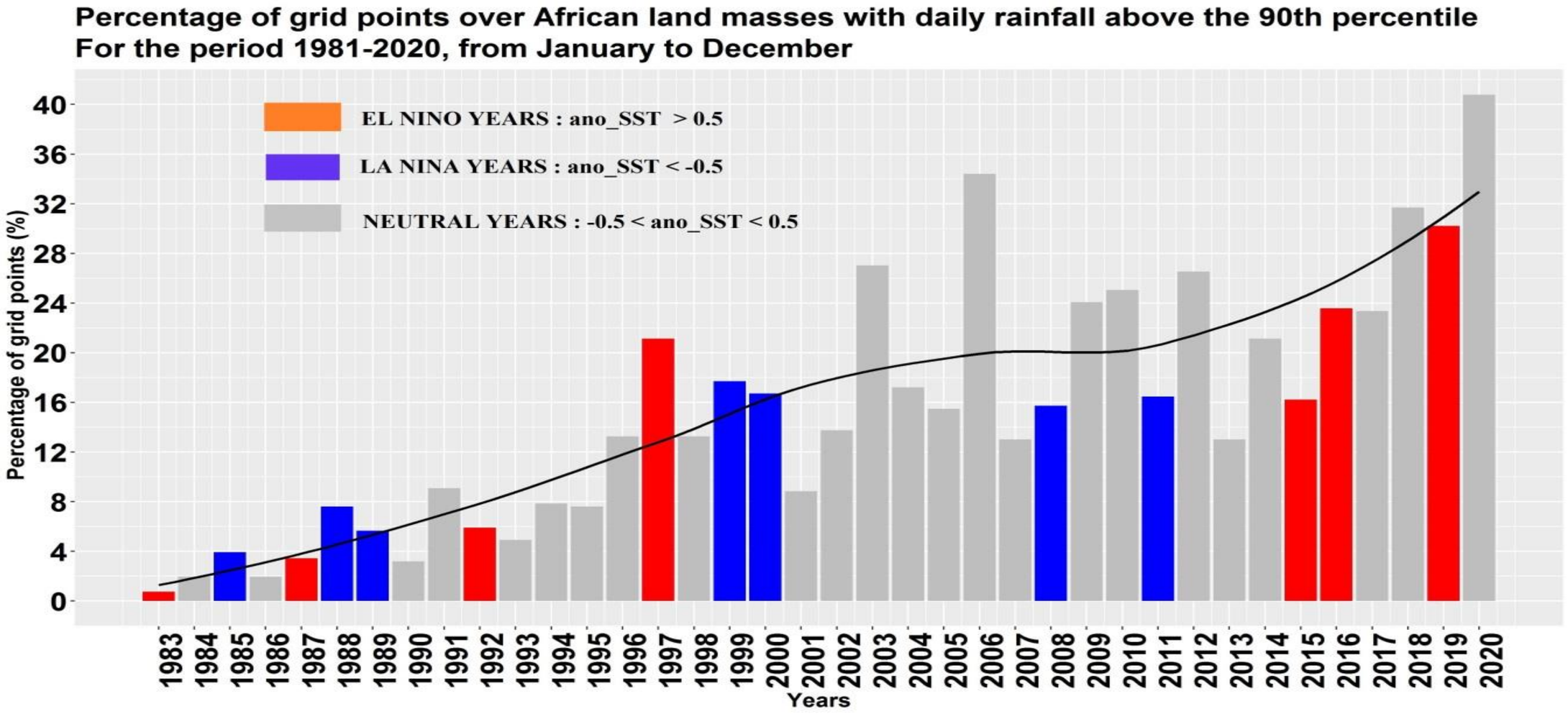


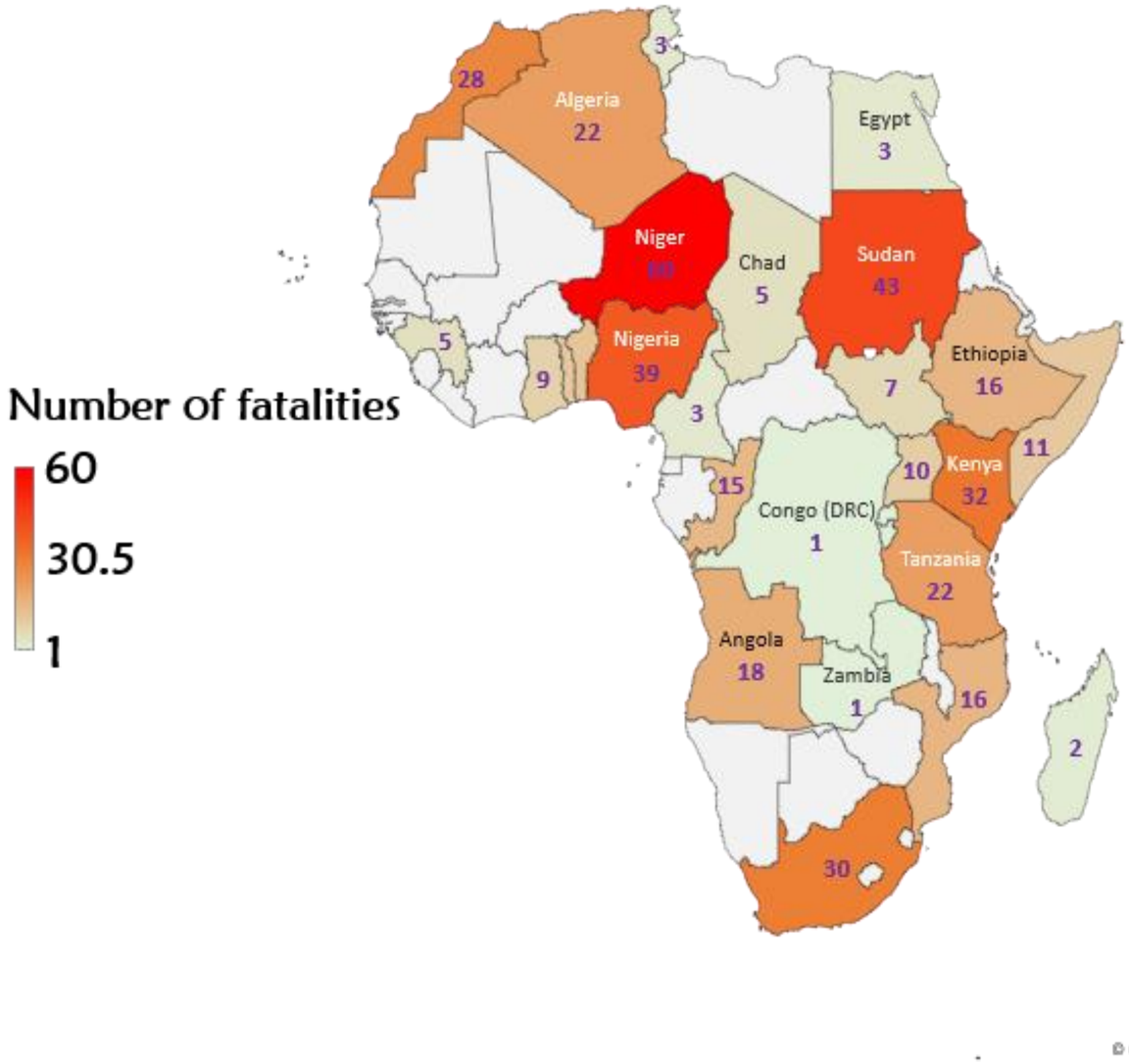
Trends on number of extreme warm days across Africa



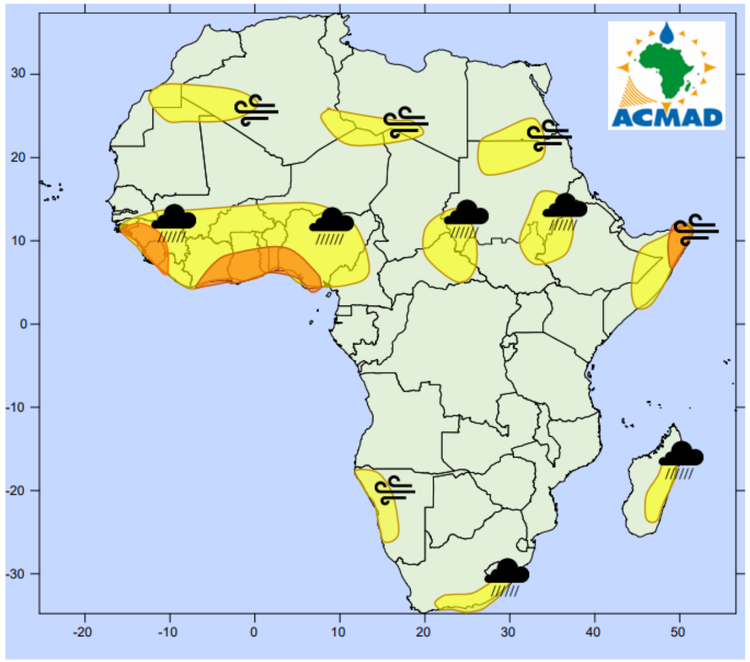
Trends on the surface heat by heavy rainfall



Floods fatalities in Africa during 2021



01 CONTINENTAL MULTI-HAZARD ADVISORY CENTRE



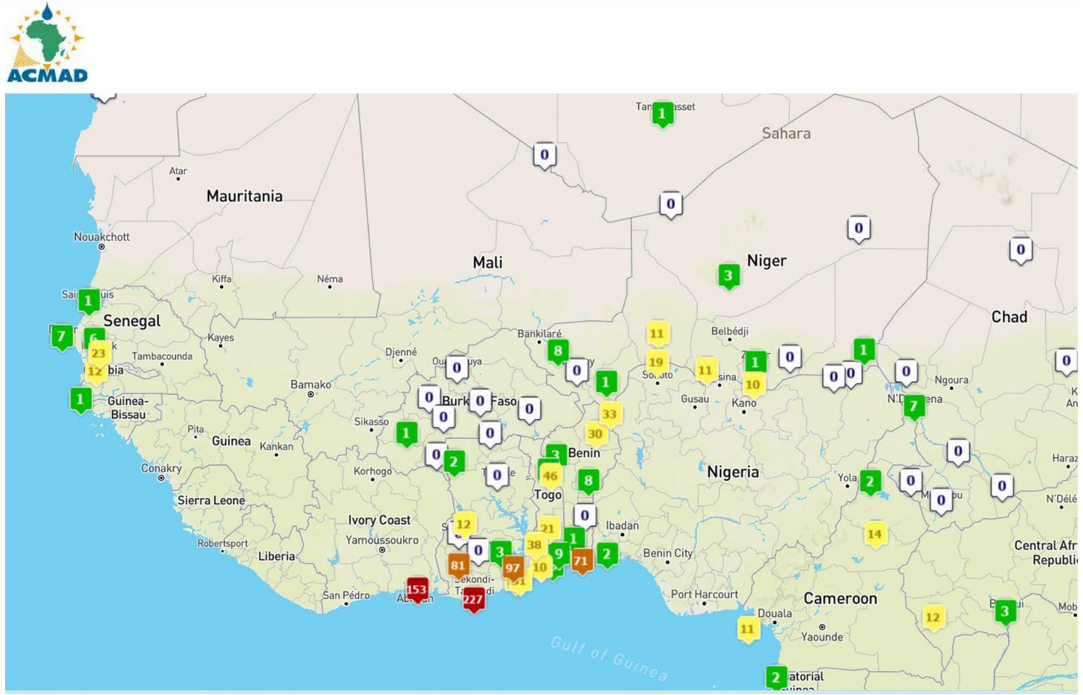
MULTI-HAZARD OUTLOOK

Validity: 2022-06-15

issued on 2022-06-13

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

Observed daily rainfall (mm) on: 15-juin-2022

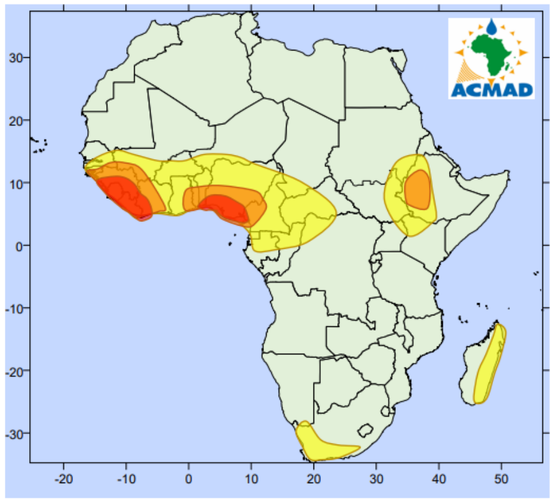


VIGILANCE MAP AND POLICY BRIEF FOR HEAVY RAINFALL AND STRONG WINDS

Valid From June 14 to 18, 2022

Issued on June 13, 2022

HIGHLIGHT: Heavy rainfall is expected Mali,Guinea-Bissau, Guinea Conakry, Sierra Leone, Liberia, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon and Ethiopia.

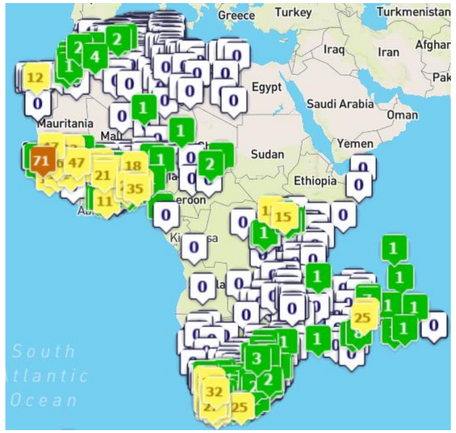
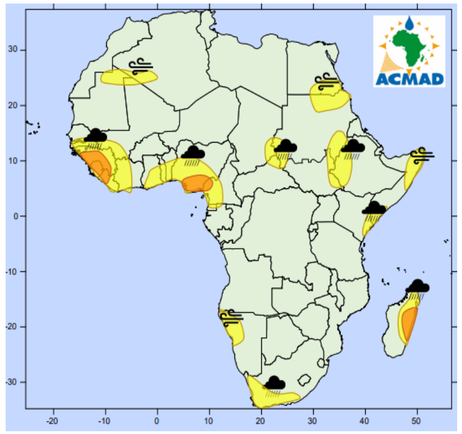
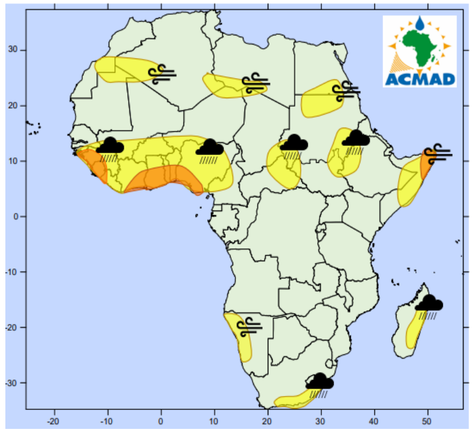
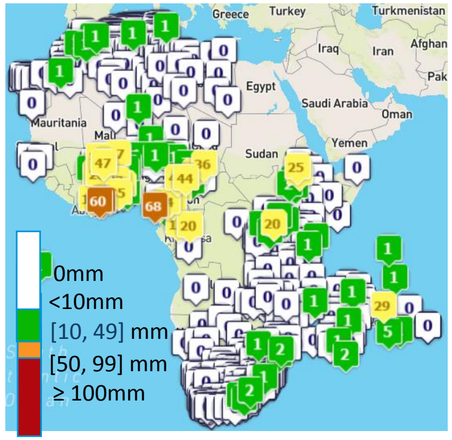
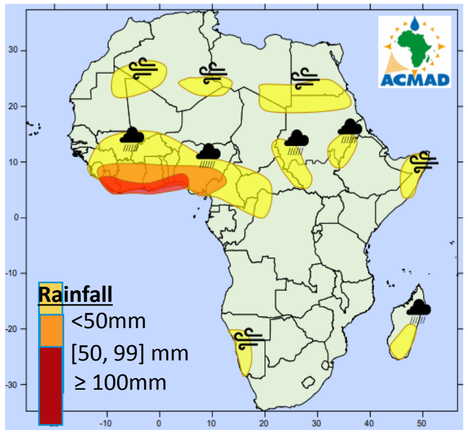


	Phenomenon	Hazard	Potentials Impacts	Measures / Advices
	In next 5 days accumulated rainfall (50-100mm) is likely,	Moderate rainfall, flash flood, riverine flooding, landslides, soil erosion and lightning likely	Displacements of people due to floods, outbreak of water borne diseases, damage of infrastructures (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 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, ...)	Activate flood contingency plans, DRM authorities to be ready to take adequate actions (be prepared for emergency response and search & rescue operations as needed), Improve water management in reservoirs and dams, be in close touch with NHMSs for more details and identification of vulnerable areas.

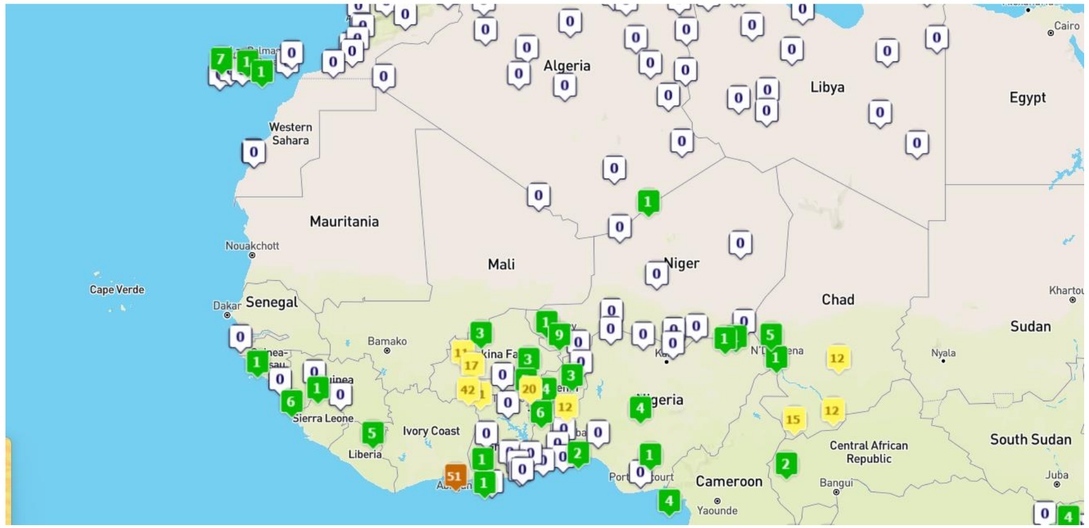
Disclaimer: *The presentation of country boundaries on the map does not imply any opinion whatsoever on the part of ACMAD concerning the legal status of any country, territory or*

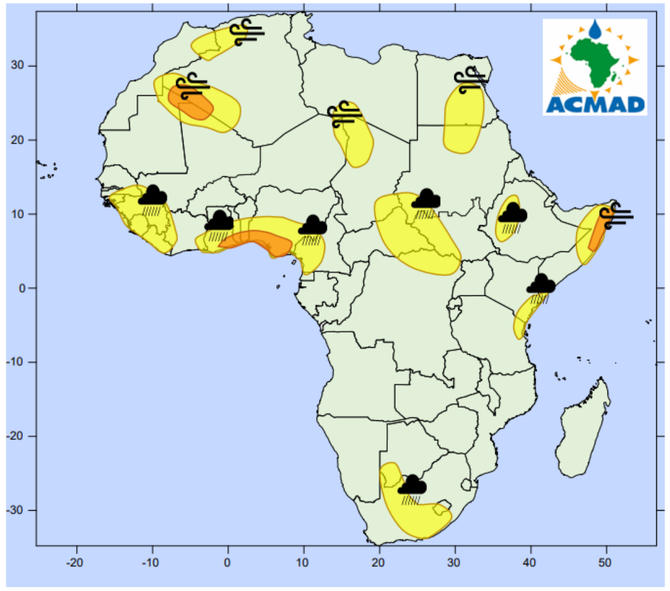
Last week 6 people died in a landslide in Mossikro in the commune of Attécoubé, Abidjan after heavy rainfall on 16 June 2022.

Flood damage in Abidjan, Ivory Coast, June 2022. Photo: ONPC-Côte d'Ivoire

	Rain gauge	Satellite estimation	Vigilance map	Models (mean)
June 14th(D+1)				
June 15th (D+2)				
June 16th (D+3)				

Observed daily rainfall (mm) on: 20-juin-2022





MULTI-HAZARD OUTLOOK

Validity: 2022-06-20

issued on 2022-06-16

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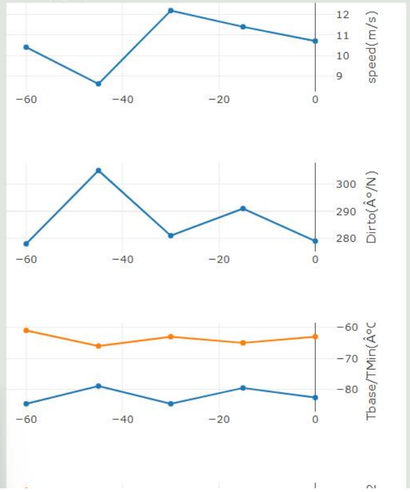
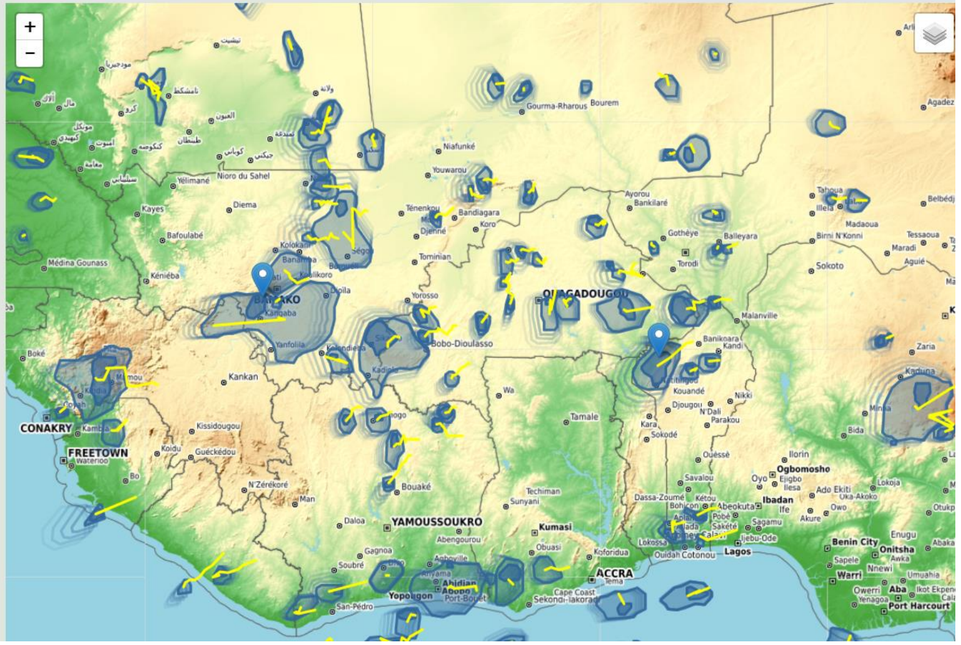
Flood damage in Abidjan, Ivory Coast, June 2022

MSG 2022-06-20T16:00:00Z : RDT and overshoot

METEO FRANCE ACMAD

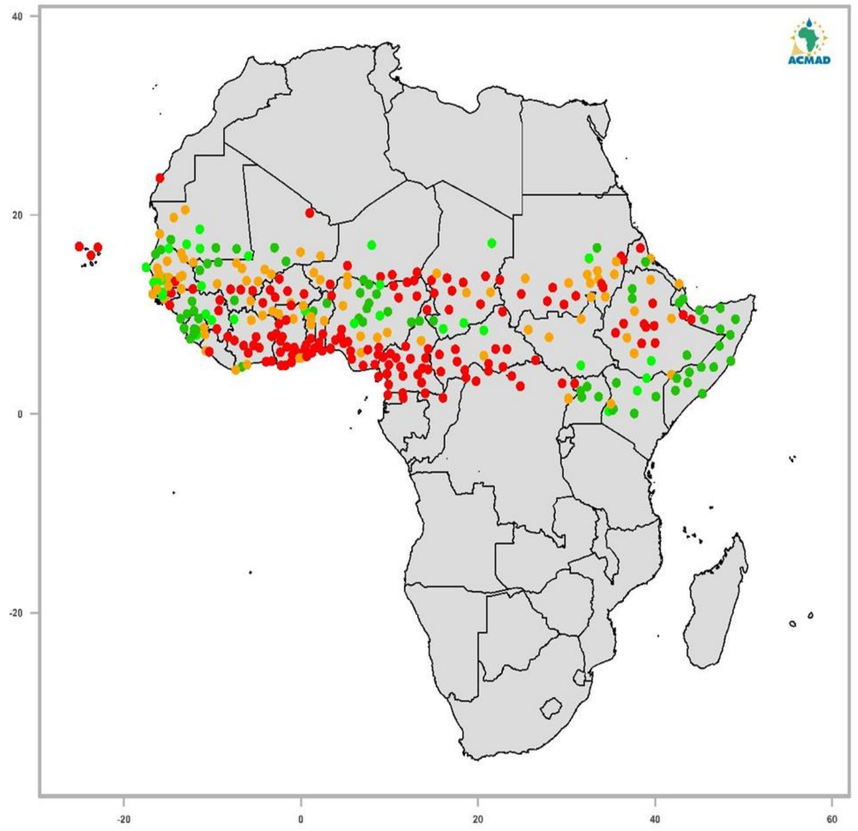
History graphs





START OF THE AGRICULTURE SEAON IN 2020 AND 2021

START OF THE AGRICULTURE SEASON FROM JANUARY TO JULY IN 2020 OVER SUB-SAHARAN AFRICA.



Observed start of the Agriculture Season departure from Average.

- LATE
- NEAR AVERAGE TO LATE
- NEAR AVERAGE TO EARLY
- EARLY

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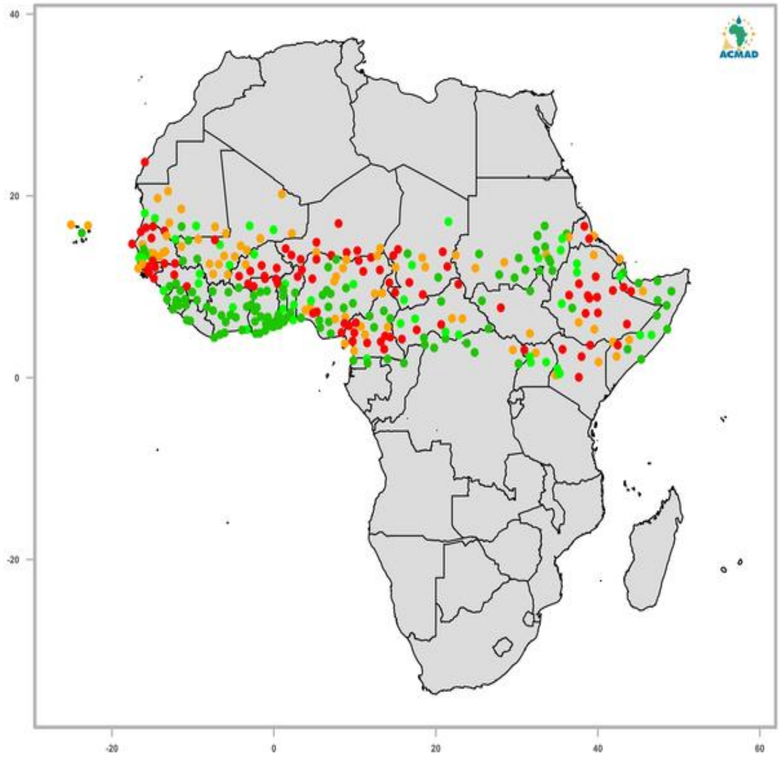

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Climate phenomenon – Hazards (location, severity) – potential impacts – consequences- preparation and response- BAMS June 2021

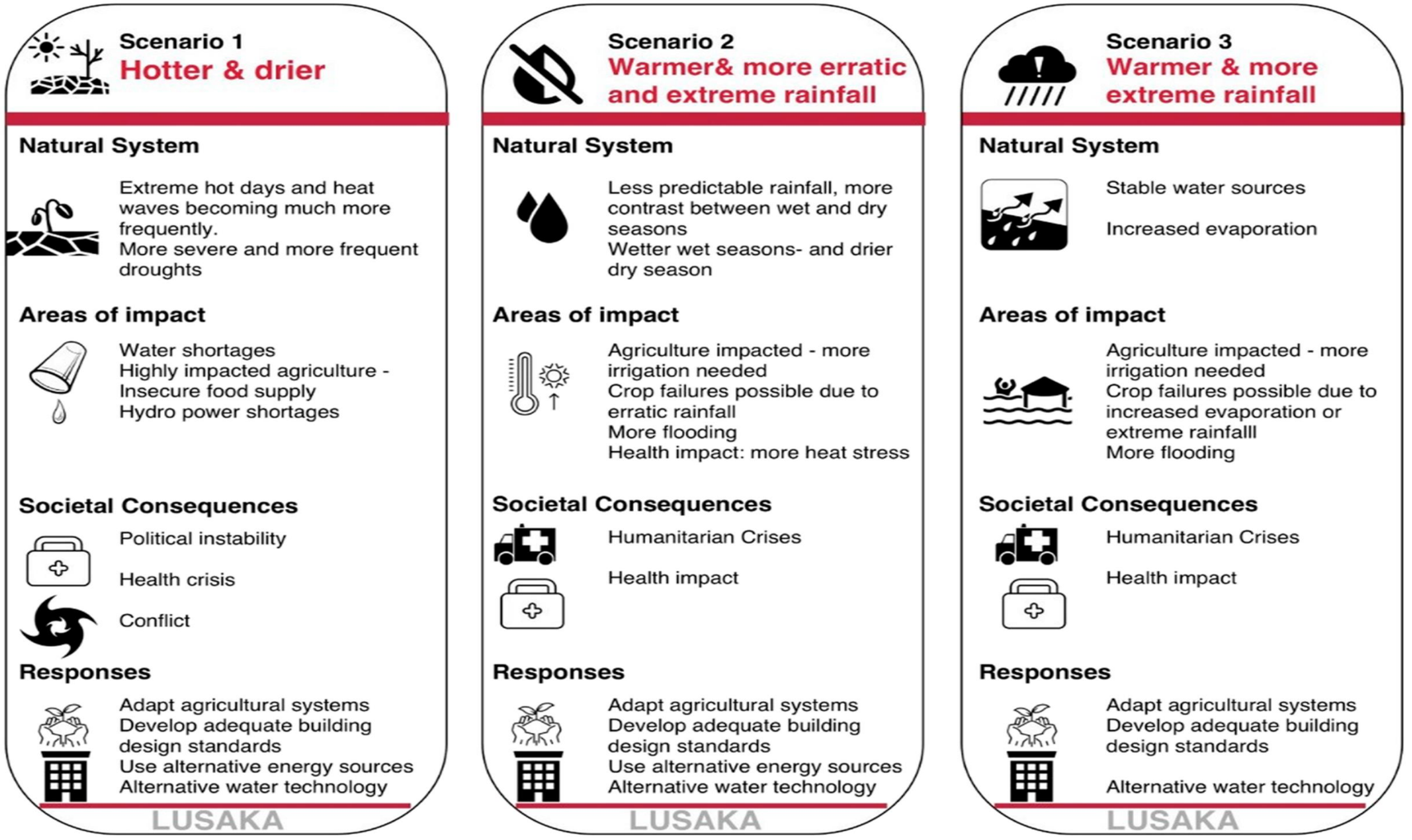


Fig. 5. Infographic summarizing three plausible future climate scenarios for Lusaka along with some key impacts, possible societal consequences, and responses.

INTERACTION WITH HUMANITARIAN

CONTINENTAL

BRIEF FOR POLICY AND DECISION MAKERS BASED ON SIGNIFICANT WEATHER AND CLIMATE EVENTS UPDATE.

VALID FOR: JULY TO OCTOBER 2022

CLIMATE ANOMALIES

Wetter than average season very likely
Heavy rainfall with reported flooding events

HAZARDS

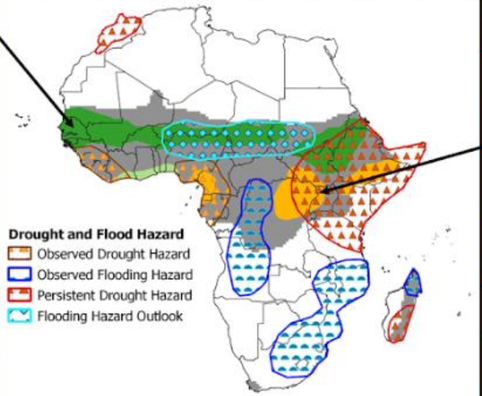
Heavy rainfall events may lead to flash flood, riverine flooding, landslides and soil erosion. High chance of lightning, hall formation and stormy weather are expected

POTENTIAL IMPACTS

Waterlogging, pest and diseases Infestation, Outbreak of water borne diseases damage to infrastructures(dams, reservoirs, bridges, roads...) Displacement of people due to floods.

MEASURES

Select excess moisture tolerant crops, wide tree planting campaigns Develop new and rehabilitatethe existing drainage structure, Update and implement flood contingency plans improve water management in reservoirs and dams



CLIMATE ANOMALIES

Drier than average season very likely
Prolonged drought with reported persistent impacts

HAZARDS

Weak to Moderate drought, dry spells, near average to late onset very likely.

POTENTIAL IMPACTS

Moisture stress, decreased river discharge, reduced rain-fed crop yield prospect, degradation of pastures and high food prices.

MEASURES

Develop and implement policy to support drought tolerant and short cycle crops, soil and water conservation practice, maximize full irrigation farming. Use watershed based in-situ water harvesting structures Developand Implement policy In support of weather based insurance and dam management

WEST AND CENTRAL AFRICA

Flooding Situation: Hotspot Countries

OCHA

As of 9 September 2022

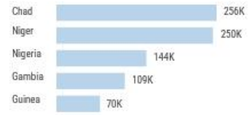
OUTLOOK

Countries with the highest risks of floodings based on the rainfall forecast for July to October 2022 include Chad, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Mali, Niger, Nigeria, Senegal, and Sierra Leone [1]. Hotspot countries have a significant number of people residing in areas with high floods exposure and are thus expected to receive "normal to above average rainfall" or "above average rainfall" during the 2022 rainy season [2,3].

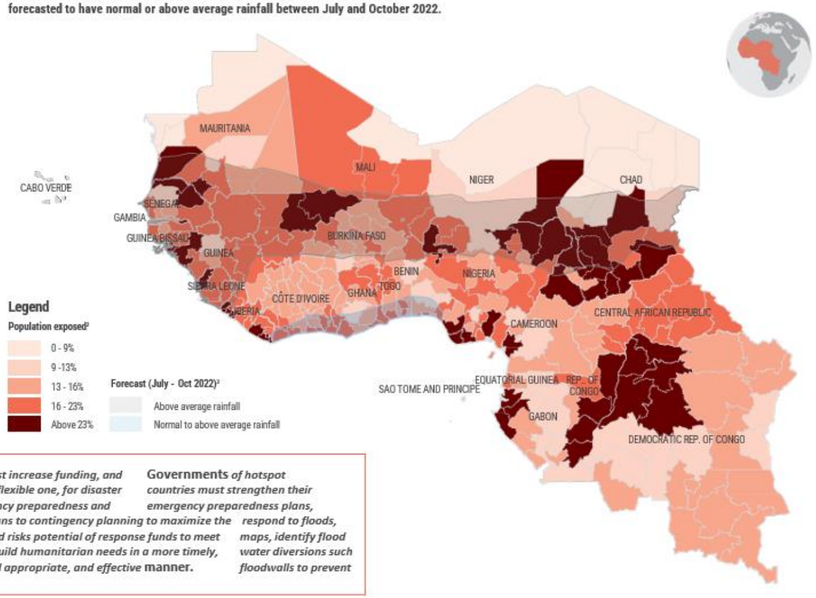
In 2021, hotspot countries included Chad, Niger, Nigeria, The Gambia, and Guinea, with floods killing 172 persons, affecting 828,000, and displacing 311,000.

[1] Analysis was carried out by OCHA
[2] Flood risk exposure map was created by World Bank (https://www.nature.com/articles/s41467-022-30727-4)
[3] Forecast was done by according to African Centre of Meteorological Application for Development (ACMAD)

Countries most affected by floods between July and October 2021



Percentage of populations exposed to high flood risks overlaid with regions forecasted to have normal or above average rainfall between July and October 2022.



Humanitarian and development organizations *must develop and implement emergency preparedness and contingency plans as these are critical to mitigate the risk of humanitarian impact of floods in "at-risk" countries.*

Donors *must increase funding, and particularly flexible one, for disaster and emergency preparedness and including plans to contingency planning to maximize the develop flood risks potential of response funds to meet zones, and build humanitarian needs in a more timely, as dams, and appropriate, and effective* **manner.** *floods.*

Governments *of hotspot countries must strengthen their emergency preparedness plans, respond to floods, maps, identify flood water diversions such floodwalls to prevent*

The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
Sources: Media, UN reports, Red Cross and Red Crescent Movement and NGO reports, Government data. Data on displacement was provided by IOM. Source of data available upon request

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N. B : This document contains evolving data which will be continuously updated.

POLICY BRIEF FOR ONDJ 2022/23

CONTINENTAL

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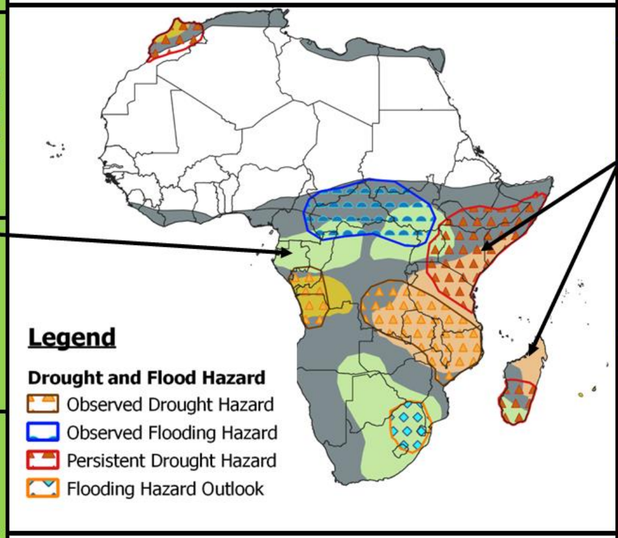

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Intra-ACP Climate Services and Related Applications Programme

THANK YOU

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