



Intra-ACP Climate Services and Related Applications Programme

CLIMSA Presentations for 3rd Forum:
11 - 13 September 2023



INTRODUCTION TO CONTINENTAL FRAMEWORK FOR CLIMATE SERVICES AND CLIMATE OUTLOOK FORA



Presented by Andre KAMGA FOAMOUHOUE
For ACMAD/ClimSA



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





- 01** Introduction
Objectives of presentation
- 02** Main input of your programme to
topic of session
- 03** Best practices & lessons learnt
- 04** Way forward



BRIEF ON ACMAD MISSION



Created through resolution 540 of the UNECA Conference of Ministers in April 1985 following the droughts of the 70s and 80s , **ACMAD is established in Niamey-Niger since October 1992**

1- Continental Weather and Climate Watch Centre for Africa **with Monitoring, forecasting and early warning for droughts, floods, tropical cyclones and other extreme events as functions .**

ACMAD is a WMO designated RCC since Congress in May 2015 and a Continental MultiHazards Advisory Centre since October 2022

2- Institution of excellence for the Applications of meteorology for sustainable development **with capacity building, methods, tools and products development, contribution to global weather and climate programs, promotion of database , research and innovation as functions**



01

Introduction

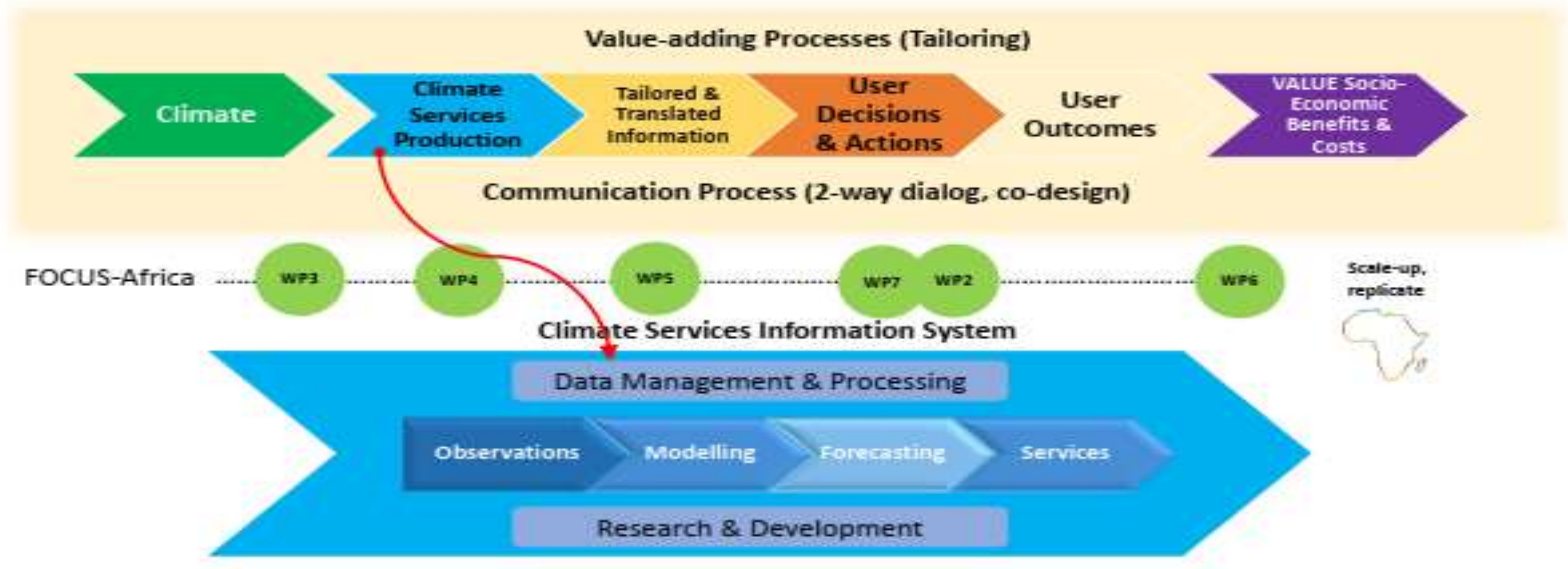




Overall Objective of ClimSA



- Contribute to foster sustainable development by strengthening the **climate services value chain** through UIP, CSIS, DATA ACCESS, CAPACITY AND INTEGRATION IN POLICIES AND DECISIONS





Objectives of the presentation



- Share information on the elements of the Framework for Climate Services at continental level;
- Exchange information on the establishment and operationalization of Continental User Interface Platforms (Agriculture, water, health, DRR);
- Review the operation of RCCs with the experience of RCC-Africa at ACMAD;
- Exchange on coordination through the African Continental Climate Outlook Forum (ACCOF);
- Exchange on access to data for each User sector;



MAIN INPUTS OF CLIMSA AT ACMAD TO THE FRAMEWORK 02 FOR CLIMATE SERVICES

**1- African Multi Hazards Advisory Centre since
October 31, 2022**

**2- WMO Designated Regional Climate Centre for Africa
since May 2015**

**Outcome 1 and 2 contributes to the implementation
of Climate Services Information System of the GFCS
and output 2 of the ClimSA programme**



FIRST AFRICAN CONTINENTAL CLIMATE OUTLOOK FORUM

THEME : **SEASONAL FORECASTS FOR DISASTER RISK REDUCTION IN AFRICA**

DATE : **FEBRUARY 04TH 2022**

TIME : **9:00 AM (GMT+1)**

VENUE : **ONLINE**





2.1 African Continental Climate Outlook Forum



BRIEF FOR POLICY AND DECISION MAKERS

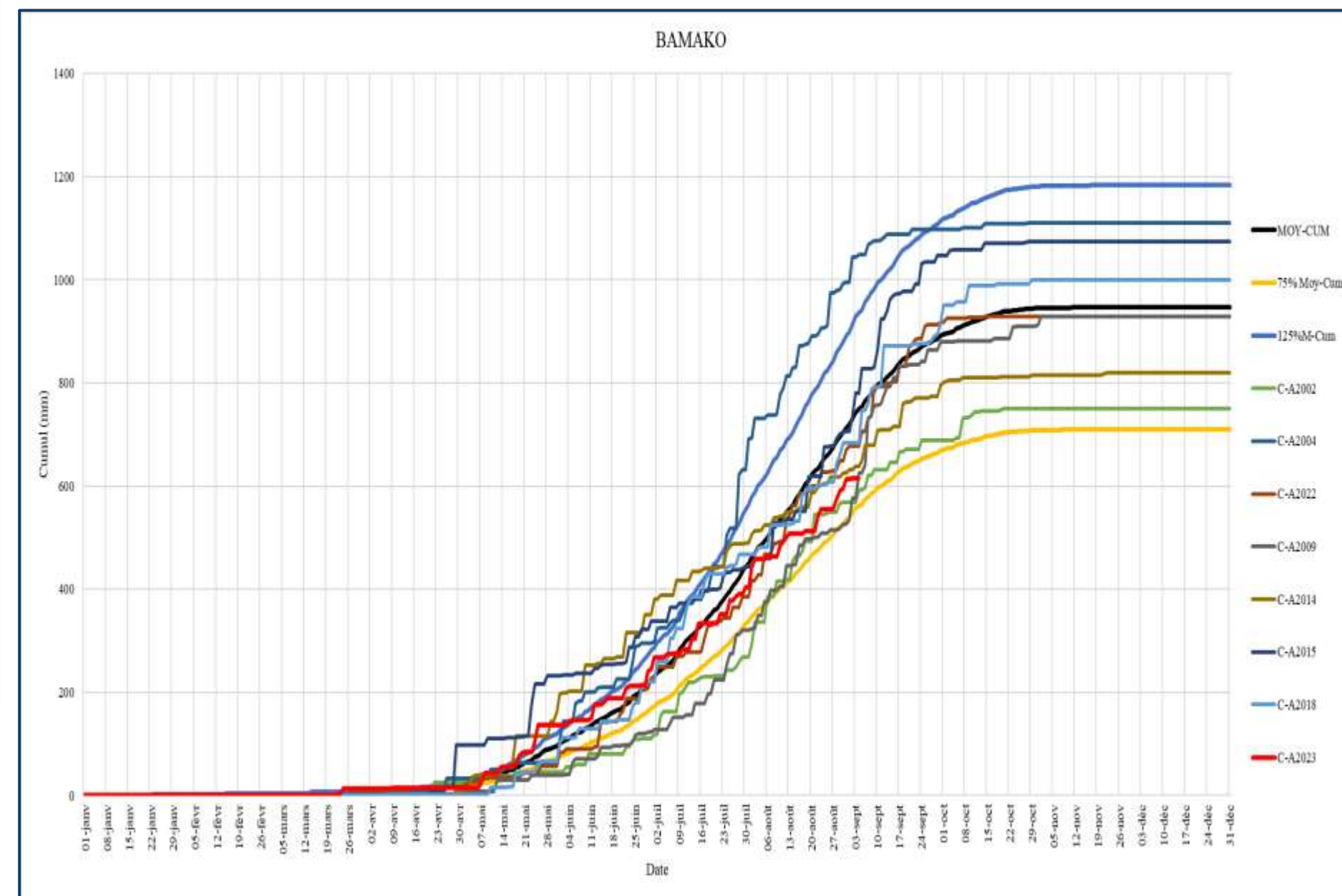
CONTINENTAL

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

VALID FOR: **AUGUST TO DECEMBER 2023**

<p>CLIMATE ANOMALIES</p> <p>Wetter than average season leading to heavy rainfall with possibility of flooding events very likely</p>	<p>CLIMATE ANOMALIES</p> <p>Drier than average with wetter pre winter period</p> <p>A very hot season with more warmer than normal days within the seasons. Rainy days are likely to be less than normal with very marked rainfall deficit</p>	<p>CLIMATE ANOMALIES</p> <p>Drier than average season leading to prolonged drought with possibility of persistent drought events very likely</p>
<p>HAZARDS</p> <p>Heavy rainfall events may lead to flash flood, riverine flooding, landslides and soil erosion. High chance of lightning, hail formation and stormy weather are expected</p>	<p>HAZARDS</p> <p>Establish a prevention, preparedness and adaptation system for planning and anticipating future El Niño events within a broader framework of preparing for extreme weather events</p>	<p>HAZARDS</p> <p>Weak to Moderate drought, dry spells, near average to late onset very likely.</p>
<p>POTENTIAL IMPACTS</p> <p>Waterlogging, pest and diseases infestation leading to outbreak of water borne diseases, damage to infrastructures (dams, reservoirs, bridges, roads...) Displacement of people due to floods.</p>	<p>LEGEND</p> <ul style="list-style-type: none"> Observed drought hazard Observed flood hazard Drought hazard outlook Flood hazard outlook 	<p>POTENTIAL IMPACTS</p> <p>Moisture stress, decreased river discharge, reduced rain-fed crop yield prospect, degradation of pastures and high food prices.</p>
<p>MEASURES</p> <p>Plant water-logged-tolerant crops. Tree planting campaigns. Develop new and rehabilitate existing drainage structure. Update and implement flood contingency plans. Improve water management in reservoirs and dams.</p>		<p>MEASURES</p> <p>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 Develop and Implement policy in support of weather based insurance and dam management</p>

- ✓ Harmonize and consolidate methods, tools and products ;
- ✓ Provide monthly continental hazards outlooks, potential impacts and proposed Anticipatory Actions





African Continental User Interface Platform



African Continental User Interface for the Agriculture Sector

- ▶ Term of reference
- ▶ Rules of procedure
- ▶ Composition of the platform
- ▶ Meetings and Workshops
- ▶ Programmes, Products and Services

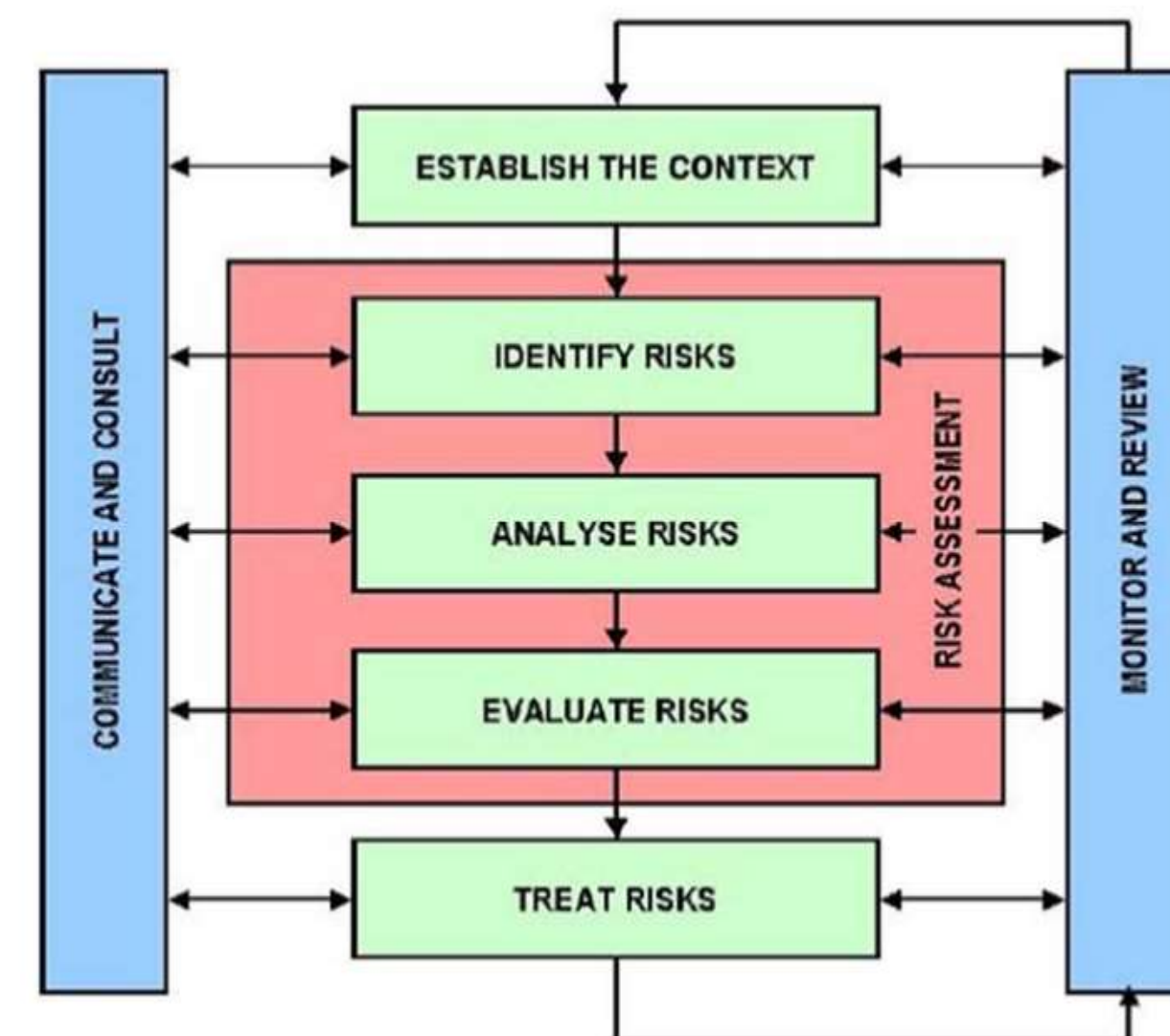


Figure 2. ISO 31000.



ToRS

▼ Aim

Brokering knowledge and harmonization of methodologies and products, sharing information/exchanges, raise awareness, capacity building, planification, preparedness and response plan, resources mobilization.

▼ Institutions

AUC, IGAD, ECCAS, GNDR, WHO, WMO, RBO, ANBO, PAFO, IRAD, CRECC, CUY, CUD, UYI, GrHo, GWP, FEICOM, CILSN, FAO, PROPAC, OCHA, IFRC, ECOWAS, UNDRR, SADC, IOC, IOM, EPR, WFP, ASECNA, ONACC, MINRESI

▼ Risks

- Floods
- Drought
- Heat waves
- Spells
- Strong winds and storms
- Disruptions of start and end of season

▼ Climate services

- Downscaled high-resolution forecast and scenarios
- Advisories for specific sectors
- Skillful forecast (forecast verification and uncertainties)
- Simplified products, products in comprehensive languages
- Advanced tailored products and real time services dissemination

▼ Activities

- Risk assessments
- Raise awareness on hazards
- Risks and mitigation measures
- Establishment of MHEWS
- Update of emergency preparedness and responses measures
- Meteorological assistance for post disaster needs assessments
- Meteorological assistance for early response and rehabilitation
- Train DRR experts on interpretation and use of climate services.





2.2 User Interface Platforms Establishment and Operationalization



-AGRICULTURE SECTOR

Risk causes:

Floods, drought, High and low temperature, spells, disruptions of start and end of season, strong winds and thunderstorms, hailstorms

Products and services

- Seasonal total precipitation and temperature outlooks
- Start and end of season, dry and wet spells monitoring and outlooks
- Advices for land preparation, sowing, fertilizer spray, weed control and management, harvesting, crop conservation, optimal crop varieties for agro climatic zones
- Warnings and Alerts for pests and diseases

Activities

- Analysis climate information needs along the agriculture value chain, share bespoke impact based climate monitoring and forecasting information, advices, Climate risk assessment along the value chain for each commodity
- Prepare advices for farmers , herders, fishermen and other stakeholders of the value chain;
- Estimation of food production and advices for agriculture products conservation
- Estimation of demand and supply in agriculture commodity markets
- Management of agriculture commodity conservation and market prices
- Update , tailor and share bespoke climate information among agriculture stakeholders monitoring and evaluation of activities

Rules of procedures

Chair Elected from the PAFO members: Secretariat: ACMAD, frequency of meetings: twice a year ahead of major agriculture seasons and ad hoc

Risk Event	Risk Cause(s)	Example Impacts	Significant Consequences?	Plausible by 2050?
caused by 0.5 m of SLR by 2050)				
Ocean acidification (Scenario: 0.15 reduction in pH by 2050)	<ul style="list-style-type: none"> Higher temperatures Higher atmospheric carbon dioxide concentrations 	<ul style="list-style-type: none"> Reduced shellfish productivity 	<ul style="list-style-type: none"> ✓ Psychological impacts ✓ Natural resources ✓ Economic vitality ✓ Cost to provincial government 	Y
Increase in invasive species (Scenario: Expansion of knotweed by 2050)	<ul style="list-style-type: none"> Multiple causes (temperature and precipitation changes) 	<ul style="list-style-type: none"> Ecosystem disruption Increased control costs Disruption to infrastructure services 	<ul style="list-style-type: none"> ✓ Natural resources ✓ Economic vitality ✓ Infrastructure services ✓ Cost to provincial government 	Y
Reduction in ecosystem connectivity (Scenario: Reduction in ecosystem connectivity in the Okanagan-Kettle region by 2050)	<ul style="list-style-type: none"> Multiple causes including wildfires, flooding, and ecosystem shifts 	<ul style="list-style-type: none"> Loss of natural resources, ecological integrity Reduction in species resiliency to adapt Loss of species altogether 	<ul style="list-style-type: none"> ✓ Natural resources ✓ Economic vitality 	Y
Loss of forest resources (Scenario: 25% decline in timber growing stock by 2050)	<ul style="list-style-type: none"> Multiple causes (temperature and precipitation changes) 	<ul style="list-style-type: none"> Ecosystem disruption Economic disruption and loss of livelihoods 	<ul style="list-style-type: none"> ✓ Cultural resources ✓ Natural resources ✓ Economic vitality 	Y
Glacier mass loss (Scenario: 25% decline in glacier area by 2050)	<ul style="list-style-type: none"> Higher temperatures 	<ul style="list-style-type: none"> Water shortages Changes in aquatic ecosystems and species 	<ul style="list-style-type: none"> ✓ Natural resources ✓ Economic vitality 	Y
Long-term water shortages (Scenario: Multi-year water shortage in at least one region by 2050)	<ul style="list-style-type: none"> Change in seasonal precipitation patterns year on year (or multi-year) 	<ul style="list-style-type: none"> Decline in drinking water quality and quantity Crop stress Economic shifts 	<ul style="list-style-type: none"> ✓ Psychological impacts ✓ Social cohesion ✓ Economic vitality (agriculture) ✓ Infrastructure services ✓ Cost to provincial government 	Y



2.2 User Interface Platforms Establishment and Operationalization



-DRR SECTOR

Risk causes:

Floods, drought, Heat waves, spells, strong winds and storms, disruptions of start and end of season, landslide

Products and services

Impact based Forecasts

Outlooks

Advisories, Watches

Risk based warnings, alerts

Activities

- Risk assessments , awareness raising on hazards, impacts, risks and mitigation measures
- Support for Establishment of MHEWS
- Update of emergency preparedness and responses measures
- Meteorological assistance for post disaster needs assessments
- Meteorological assistance for early response and rehabilitation
- Share advisories, watches, outlooks, warnings and alerts
- Train DRR experts on interpretation and use of climate services, train climate services providers for understanding of DRR decision systems and related climate information needs
- Monitor and evaluate activities above

Rules of procedures

Chair AUC: Secretariat: ACMAD frequency of meetings: twice a year if possible back to back with the African WG on DRR



2.2 User Interface Platforms Establishment and Operationalization



- Health SECTOR

Risk causes:

Floods, drought, High temperatures and heat waves, spells, dust, air quality degradation

Products and services

Dust concentration in the air

Particulate matter concentration in the air

Meningitis and malaria watches, warnings and alerts

Seasonal forecasts of precipitation and temperature

Risk assessments for meningitis, malaria, cholera and other climate related diseases

Health impact based monitoring and forecasting

Activities

- Analysis of health value chain, share climate information for epidemics surveillance and control as well as advices
- Climate risk assessment for the health sector
- Prepare advices for diseases surveillance and control
- Training and exchanges between climate services providers and Health experts
- Development and update of climate and health information systems with climate, epidemiological data
- ...
- Update, tailoring and sharing of climate and health data and information among stakeholders, Monitoring and evaluation activities above

Rules of procedures

Chair Elected from ClimHealth Africa Network: Secretariat: ACMAD frequency of meetings: twice a year and ad hoc ahead of major diseases and epidemics seasons



2.2 User Interface Platforms Establishment and Operationalization



- WATER SECTOR

Risk causes:

Heavy rains, drought, High temperatures, severe low and high flows or water levels

Products and services

heavy rains, dry/wet spells, Floods and droughts, high temperature watches, warnings and alerts, low and high flows or water levels

Impact based daily to seasonal forecasts of precipitation and temperature

Climate impacts and risk

The presentation shared the following features of resilient buildings:

- Reduced Air conditioning hours;
- Ventilation of air;
- Roof able to withstand and cope with high intensity sunlight;
- Design houses to withstand disasters in flood plains;
- Trade off between climate resilient buildings and climate risk;

Activities

- Assessment of water availability
- Climate risk assessment
- Floods, drought watches, warnings and alerts
- Prepare advices on water levels or flows for water management in dams , lakes and rivers
- Training and exchanges between climate services providers and water experts
- Development and update of climate and water information systems with climate, stream flow, water levels data, available infrastructure for water management..
- Update , tailoring's and sharing of climate / water/infrastructure data and information among stakeholders, Monitoring and evaluation of activities above

Rules of procedures

Chair AU/AMCOW: Secretariat: ACMAD/ANBO frequency of meetings: quarterly and ad hoc



2.2 Dialogue with Infrastructure sector users



The presentation shared the following features of resilient buildings:

- Reduced Air conditioning hours;
- Ventilation of air;
- Roof able to withstand and cope with high intensity sunlight;
- Design houses to withstand disasters in flood plains;
- Trade off between climate resilient buildings and climate risk;

The resilient infrastructure sector needs drainage, coastal protection, waste management, water management, protection against drought and floods. Products and information required to meet those needs for resilient infrastructure includes:

- Wind speed and direction
- Soil and near surface temperature
- Rainfall
- Sunlight, its angle and intensity
- Intensity, duration, and frequency of extreme over the infrastructure project site based on historical climate records
- Intensity, duration, and frequency of extreme over the infrastructure project site based on climate projections
- Frequency of high intensity, short duration rainfall at infrastructure site
- Flood prone areas identification for land management policy

Data sources are mostly from National Meteorological and Hydrological Services. However, many products required are to be developed upon request on infrastructure project sites.



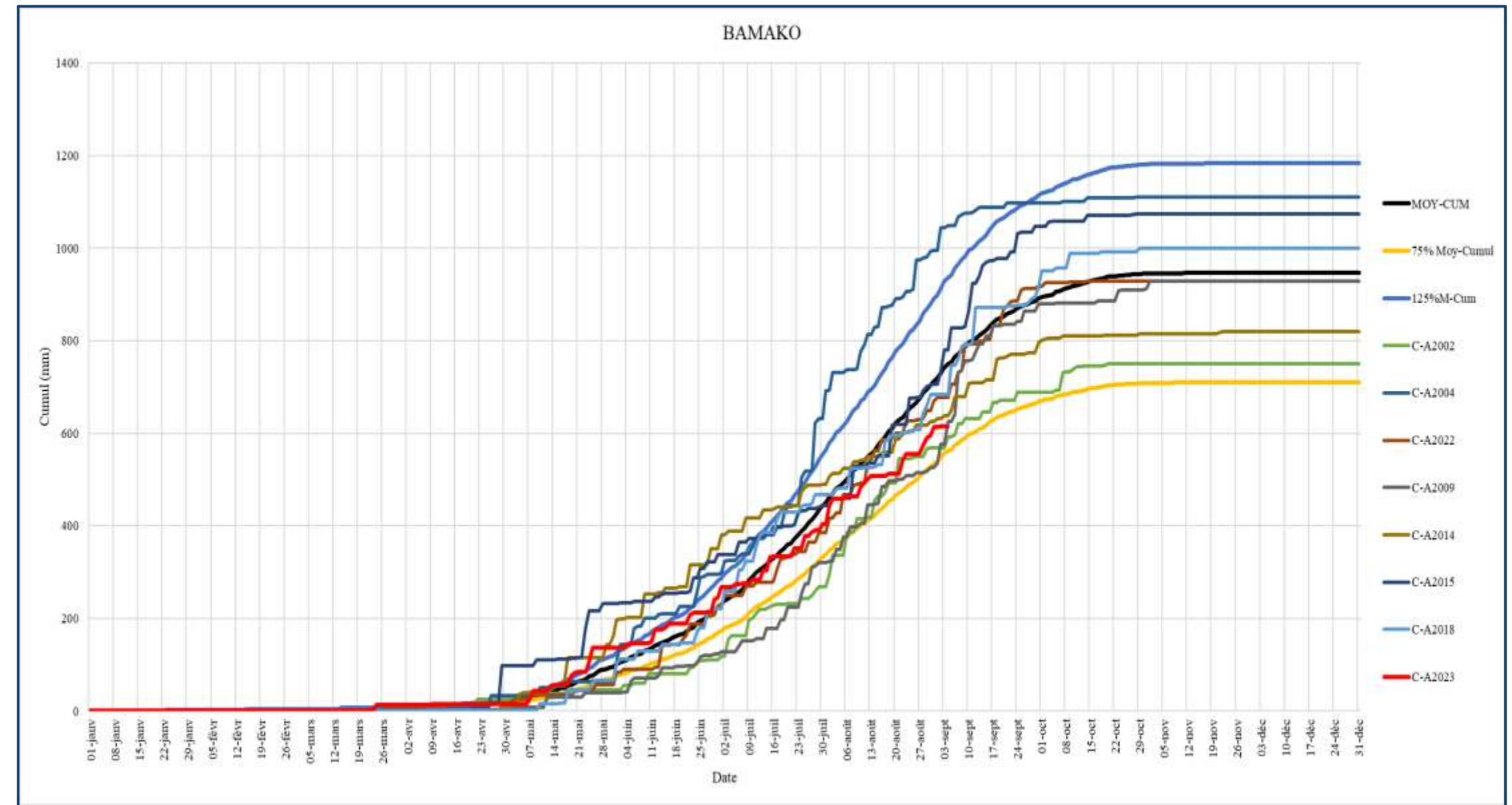
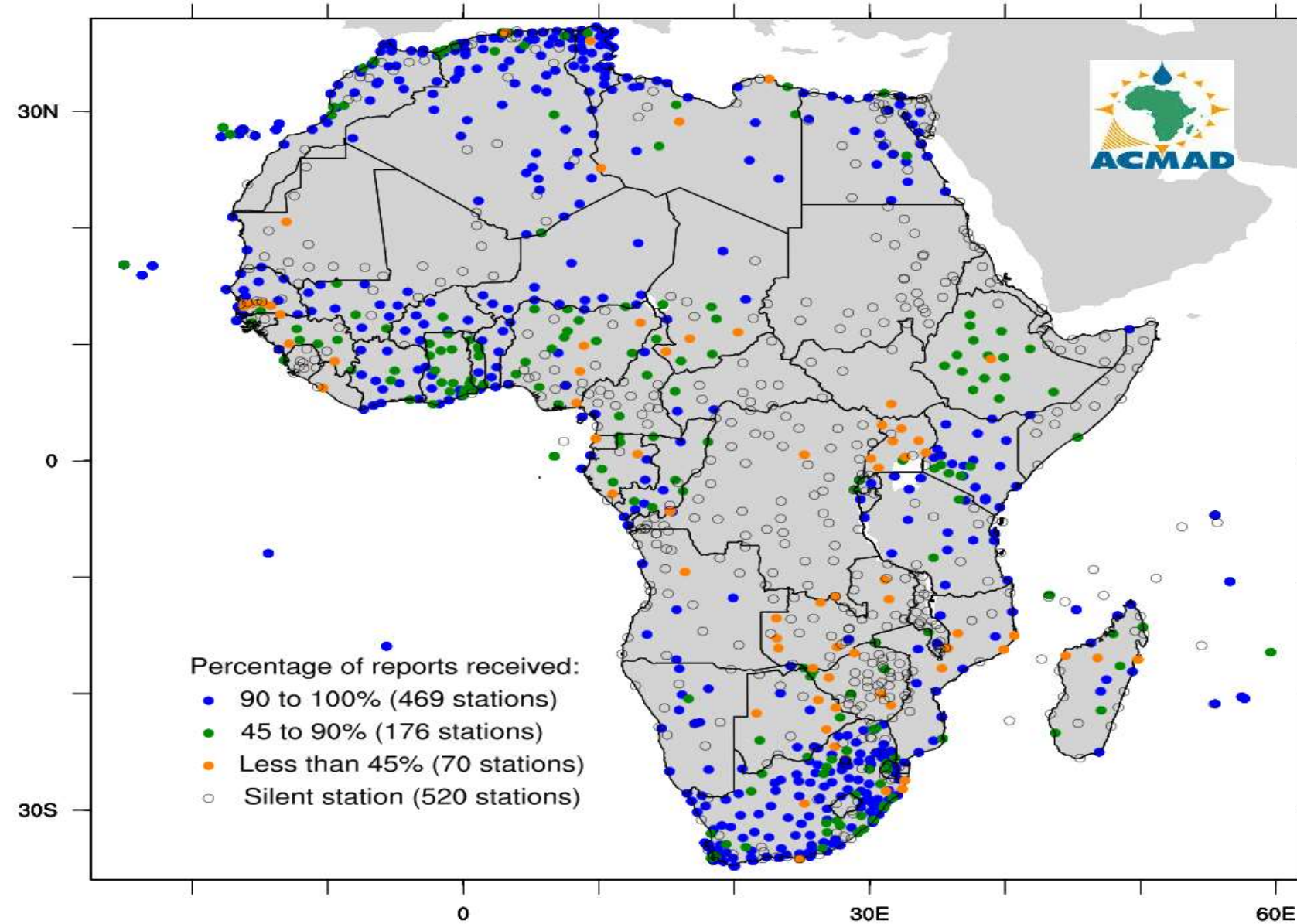
OBSERVATIONS, MONITORING, DATA AND PRODUCTS

CHALLENGE OF STATIONS REHABILITATION TO BETTER CALIBRATE SATELLITE DATA FOR CLIMATE MONITORING WITH MTG



A SECOND CHALLENGE IS ACCESS TO HIGH QUALITY MODEL OUTPUTS WITH POST PROCESSING APPLICATIONS FOR SPECIFIC SECTORS

Monthly monitoring of SYNOP reports for June-2023



Diagnostic for local drought in July and August 2023 over southern Mali was possible with in situ daily data of Bamako only. Current Satellite data are not well calibrated due to unavailable in situ observations at a reasonable resolution.





2.1 CAPACITY BUILDING BY RCC-Africa IN THE FRAMEWORK



- Capacity Building and Exchanges covering (starters, practitioners, experts, trainer):
 - On the Job training for NMHSs and secondments on data access, climate monitoring&LRF, nowcasting/meso and synoptic/S2S forecasting;
 - Internships and fellowships with universities and Research institutes;
 - the state of climate for Africa report production (e)-workshops (e.g warming rates...)
- Return periods of extremes events for infrastructure resilience training materials
- Training on EW4all with WMO Regional training Centres (RCC-RTC Niamey collaboration)
- Training on Reception station with JRC and EUMETSAT
- Workshops for DRR agencies, agriculture, health, water Services, infrastructure user sectors for interpretation and use (with Focus-Africa, Hydromet)
- Specific competency training for NMHSs based on needs assessment
- Climate fora training
- Climate Services training needs assessments and materials development
- Briefings, ad hoc briefings with NMHSs and Regional Centres (RCCs, RSMCs)
- Anticipatory Action planning dialogue events (AUC, IFRC, OCHA, HCR...)
- - training of trainers with RCCs, RSMCs and advanced NMHSs

03

Best Practices & lessons learnt with UIP



PRACTICE FOR IMPACT FORECASTING

KEY PART OF ClimSA WAY FORWARD

Example of Impact based forecasting with
 Climate phenomenon – Hazards (location, severity) – potential impacts –
 consequences- preparation and response- BAMS June 2021

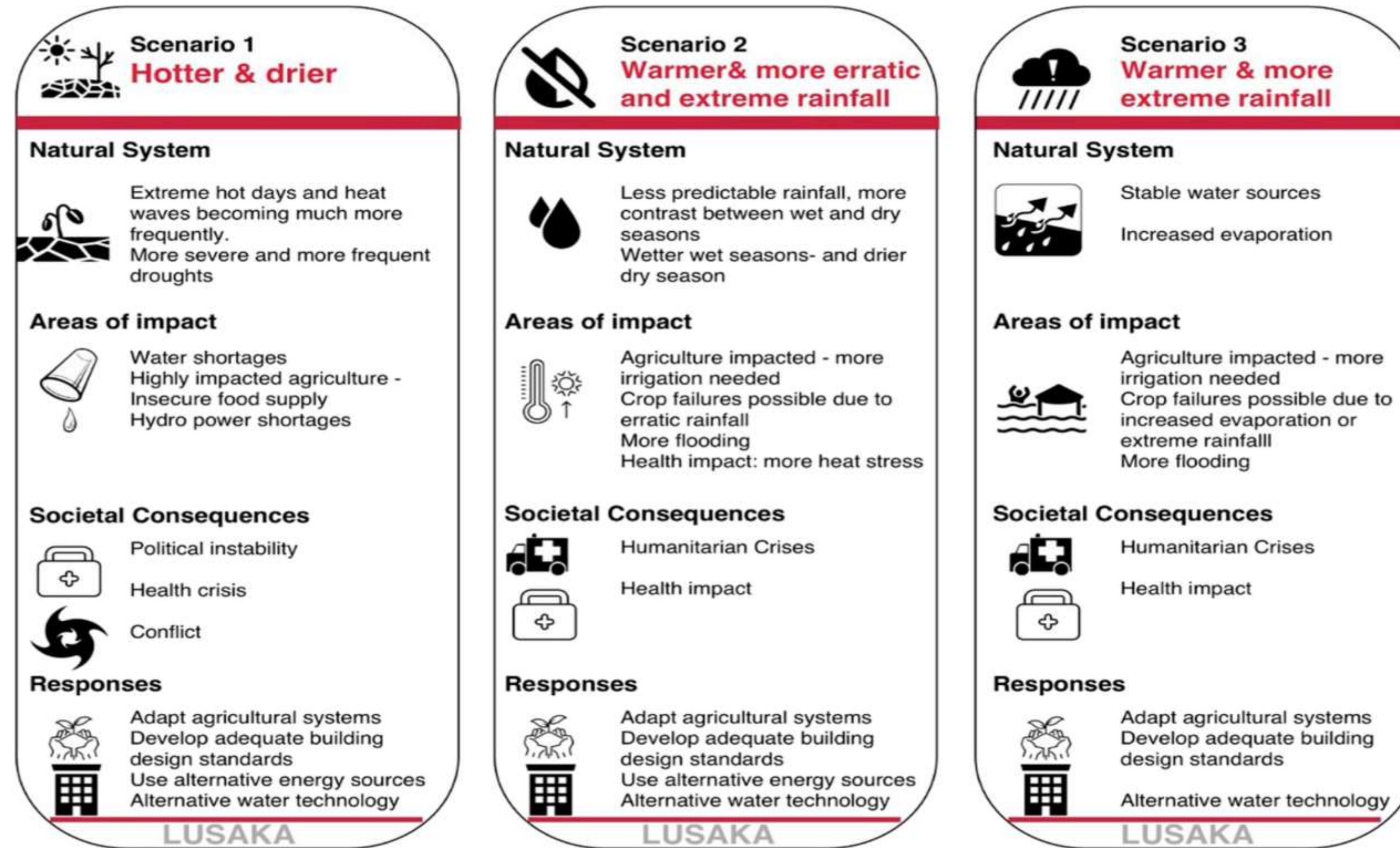


Fig. 5. Infographic summarizing three plausible future climate scenarios for Lusaka along with some key impacts, possible societal consequences, and responses.



PREDICTION % OF POPULATION TO BE EXPOSED TO FLOOD

CONTINENTAL IMPACT BASED FORECAST

BRIEF FOR POLICY AND DECISION MAKERS BASED ON SIGNIFICANT WEATHER AND CLIMATE EVENTS UPDATE.
VALID FOR: JULY TO OCTOBER 2022

CLIMATE ANOMALIES	HAZARDS	POTENTIAL IMPACTS	MEASURES
Wetter than average season very likely Heavy rainfall with reported flooding events	Heavy rainfall events may lead to flash flood, riverine flooding, landslides and soil erosion. High chance of lightning, hail formation and stormy weather are expected	Waterlogging, pest and diseases infestation, Outbreak of water borne diseases damage to infrastructures (dams, reservoirs, bridges, roads...) Displacement of people due to floods.	Select excess moisture tolerant crops, wide tree planting campaigns Develop new and rehabilitate the existing drainage structure, Update and implement flood contingency plans Improve water management in reservoirs and dams
Drier than average season very likely Prolonged drought with reported persistent impacts	Weak to Moderate drought, dry spells, near average to late onset very likely.	Moisture stress, decreased river discharge, reduced rain-fed crop yield prospect, degradation of pastures and high food prices.	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 Develop and implement policy in support of weather based insurance and dam management.

REPORTED NUMBER OF POPULATION AFFECTED BY FLOOD

WEST AND CENTRAL AFRICA Flooding Situation: Hotspot Countries

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 Leone¹. 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^{2,4}.

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

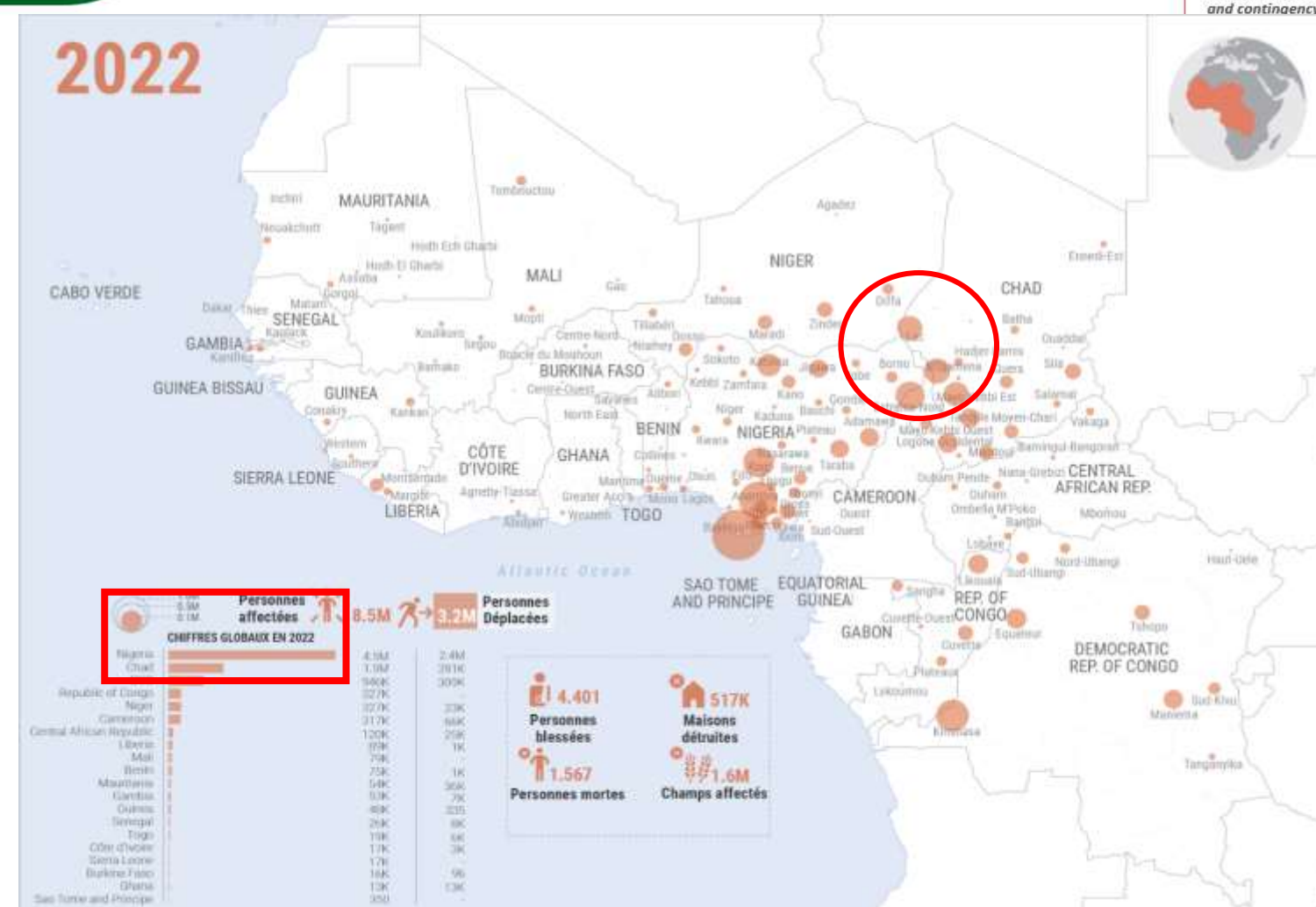
Chad	256K
Niger	250K
Nigeria	144K
Gambia	109K
Guinea	70K

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

Legend
Population exposed²
0 - 9%
9 - 13%
13 - 16%
16 - 23%
Above 23%

Forecast (July - Oct 2022)³
Above average rainfall
Normal to above average rainfall

Humanitarian and development organizations must develop and implement emergency preparedness and contingency plans as these are the risk of humanitarian "at-risk"
Donors must increase funding, and particularly flexible one, for disaster and emergency preparedness and including plans to contingency planning to maximize the development flood risks potential of response funds to meet zones, and build humanitarian needs in a more timely, as dams, and appropriate, and effective manner.
Governments of hotspot countries must strengthen their emergency preparedness plans, respond to floods, maps, identify flood water diversions such floodwalls to prevent floods.

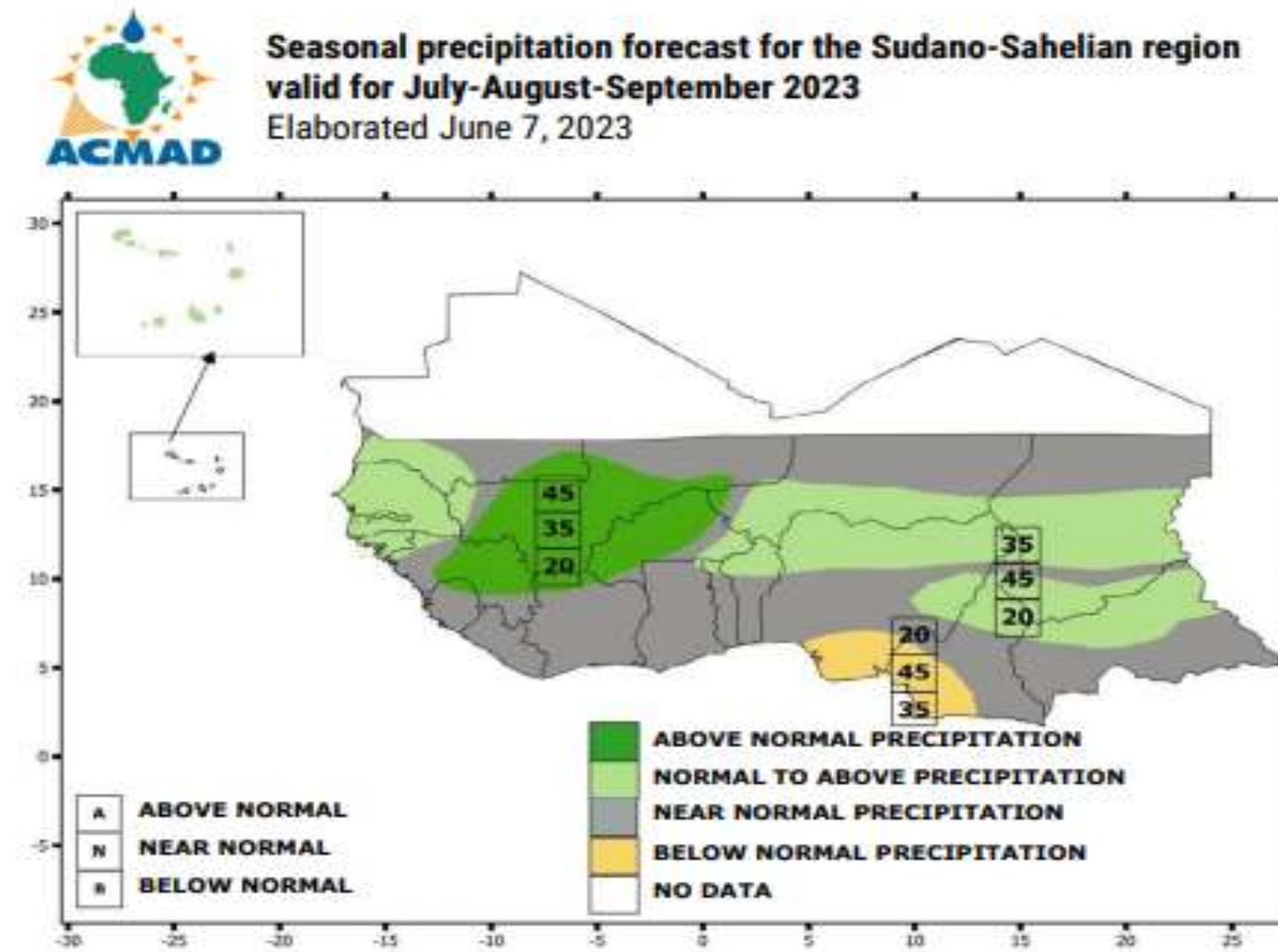
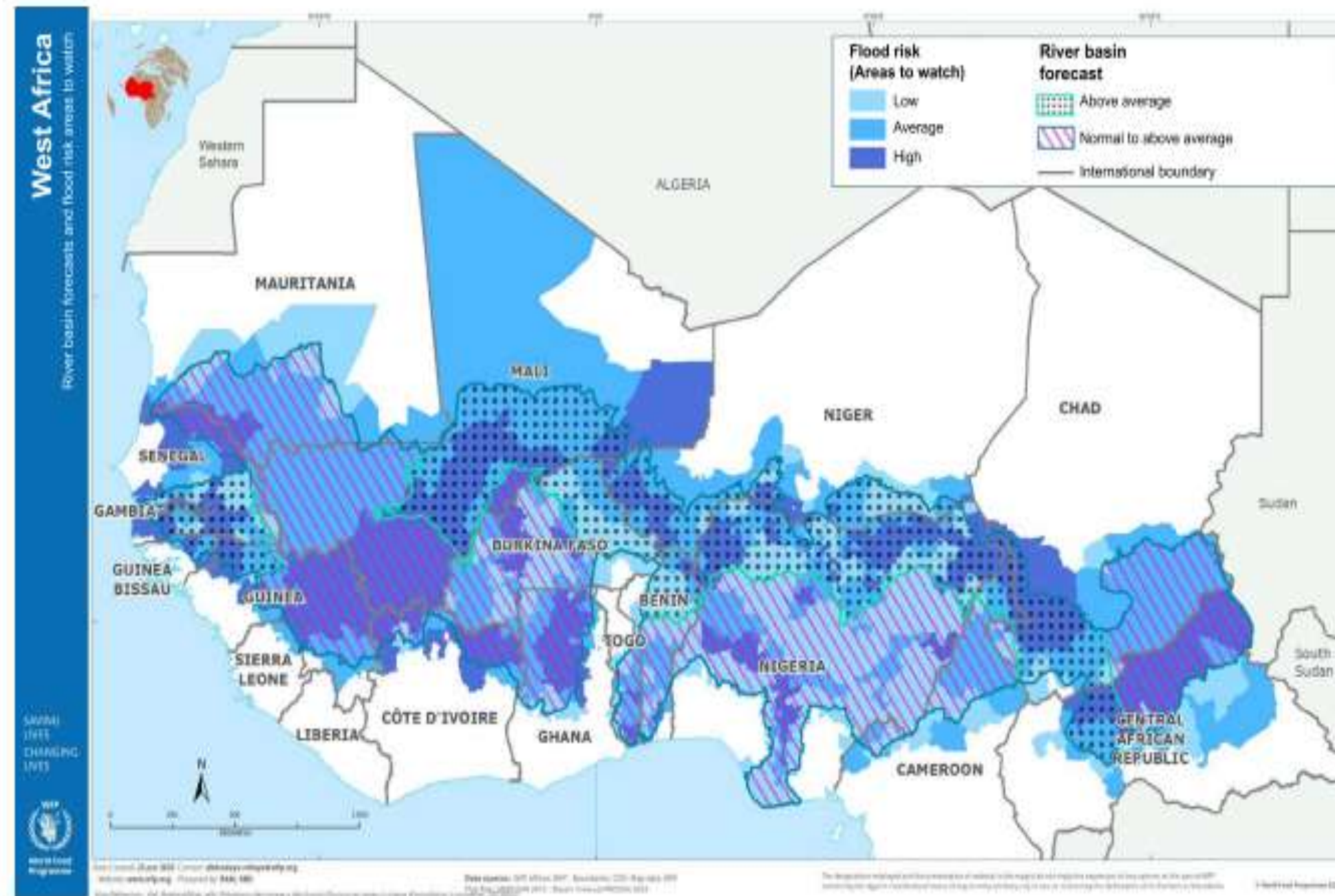


... and the designations used on this map do not imply official endorsement or acceptance by the United Nations.
... Cross and Red Crescent Movement and NGO reports, Government data. Data on displacement was provided by IOM. Source of data available upon request.
N. B : This document contains evolving data which will be continuously updated.

2.2 Output 2: Continental and Regional support Services at ACMAD

FORECAST AND IMPACT ANALYSIS WITH UNOCHA

Humanitarian impact analysis



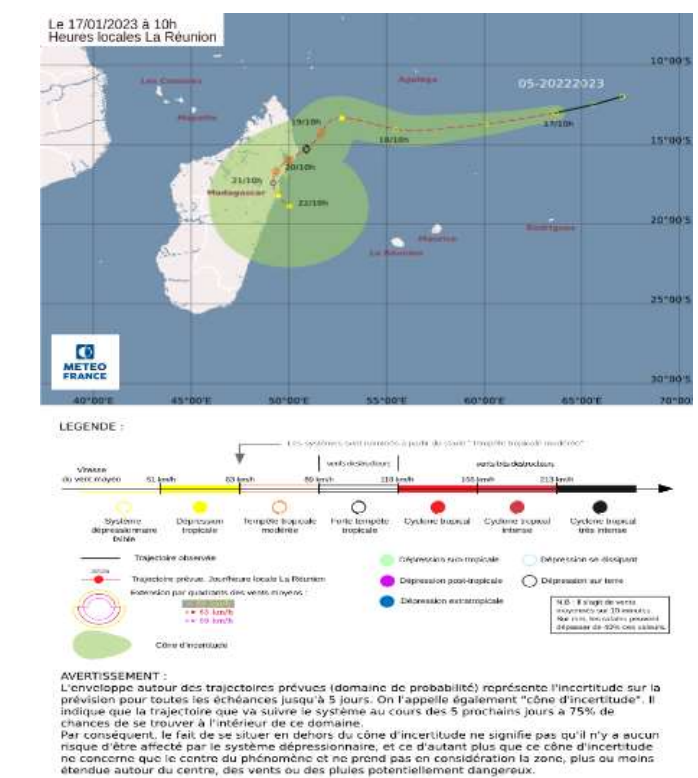
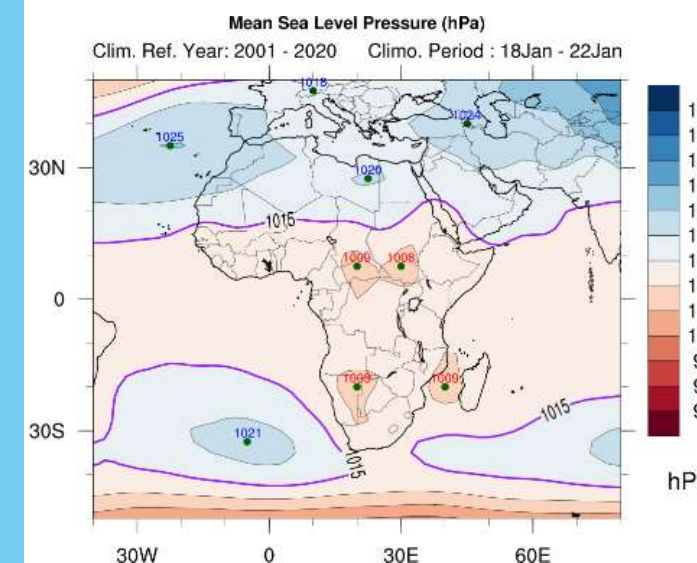
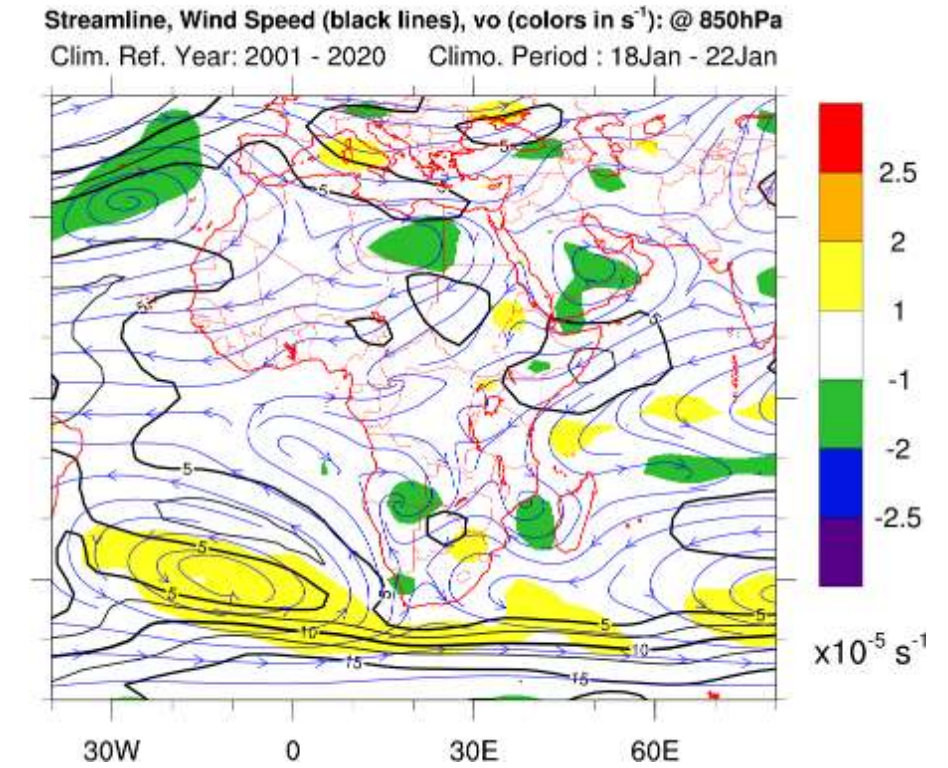
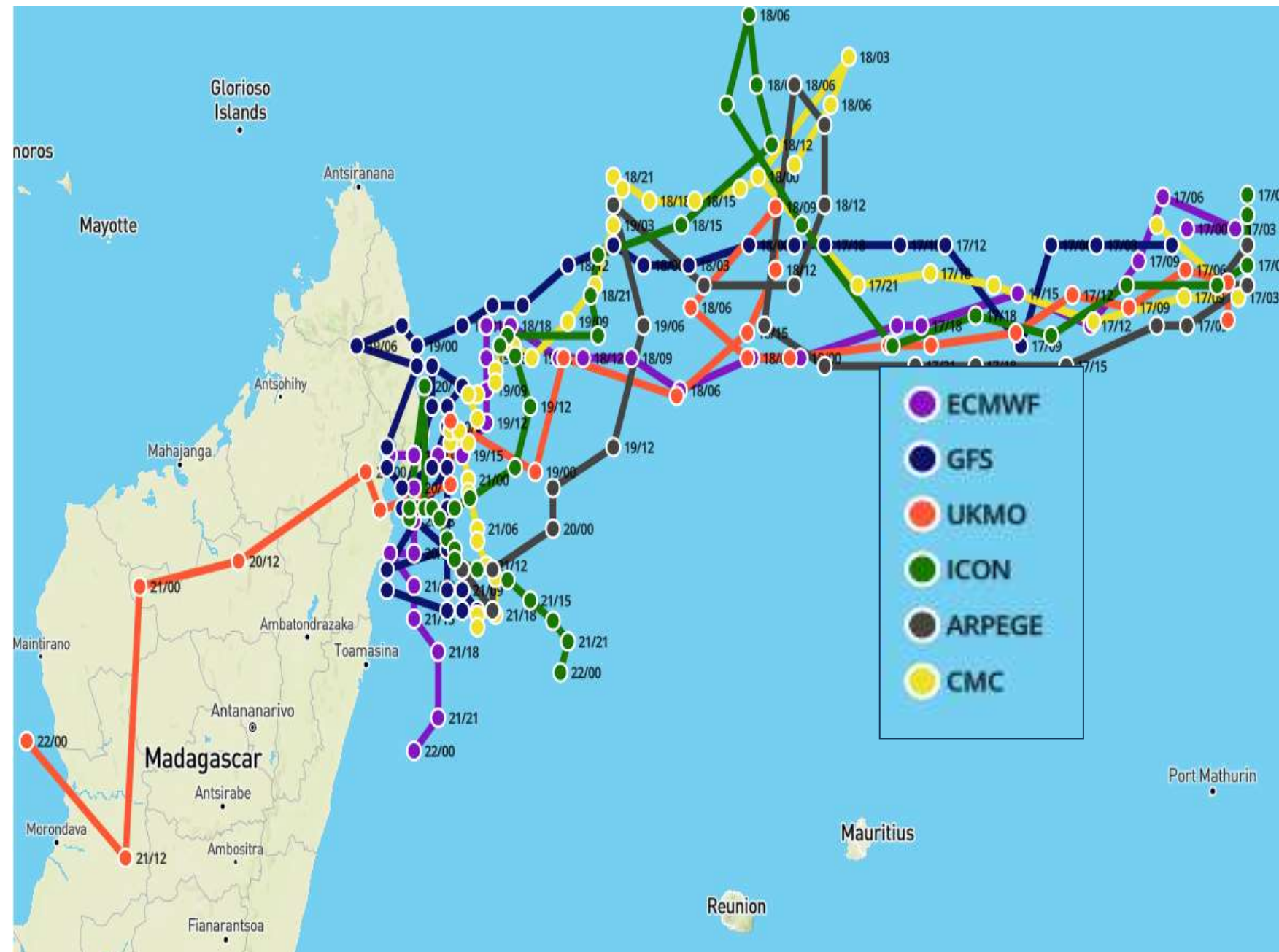
ACCELERATE OPERATIONALIZATION UIP DRR INCLUDING IMPACT ANALYSIS AS A UIP DELIVERABLE

GOOD PRACTICE FOR SOUTH WEST INDIAN OCEAN CYCLONE TRACKING



tracks from: 17-01-2023, 00UTC to 22-01-2023, 00UTC

(Global deterministic models : ARPEGE, CMC, ECMWF, ICON, GFS and UKMO) – **Climatology of the forecast period** favors evolution towards the Mozambican channel
Need training on interpretation



GOOD PRACTICE FOR UNHCR REFUGEE AND DISPLACED PEOPLE MANAGEMENT

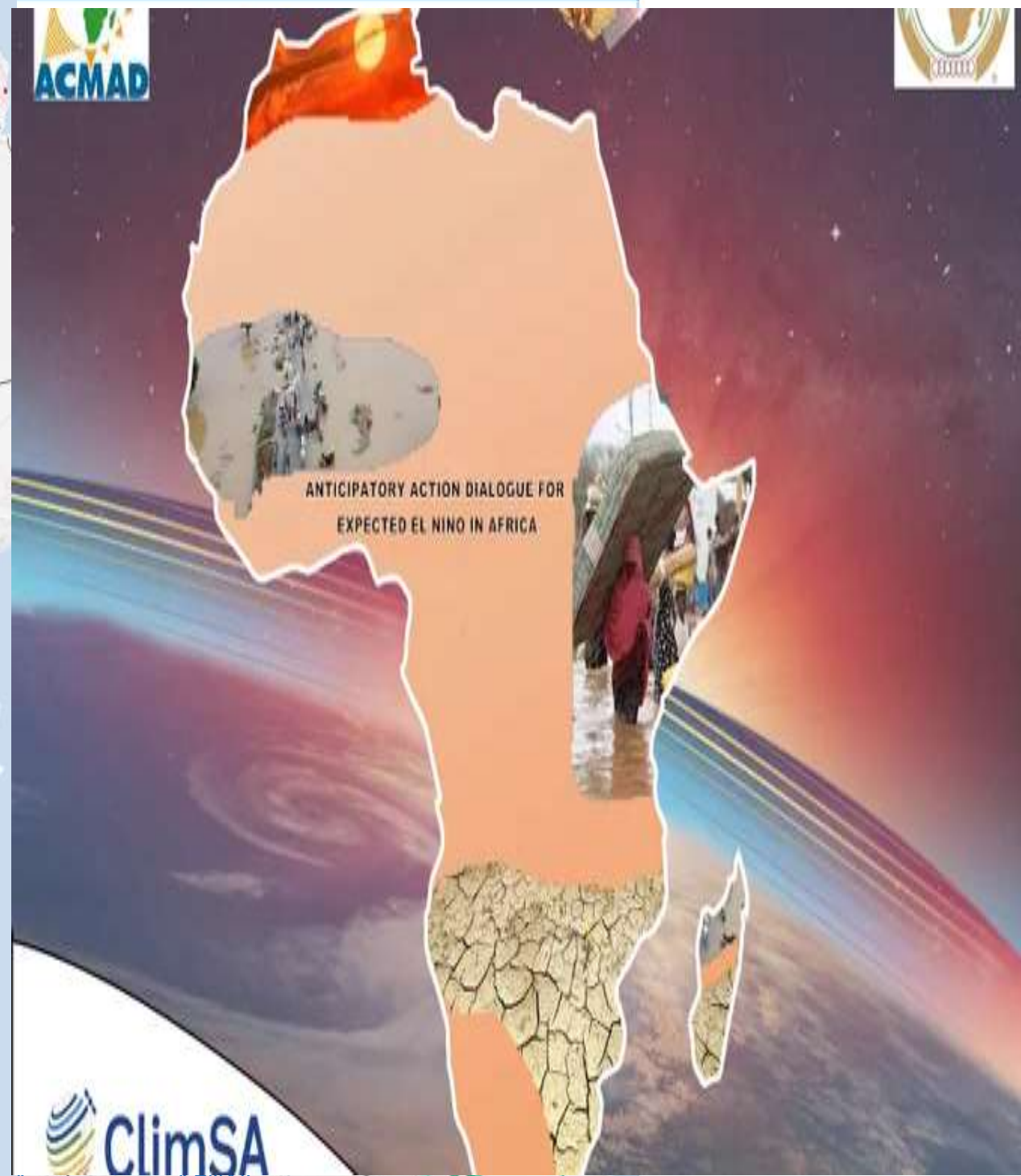
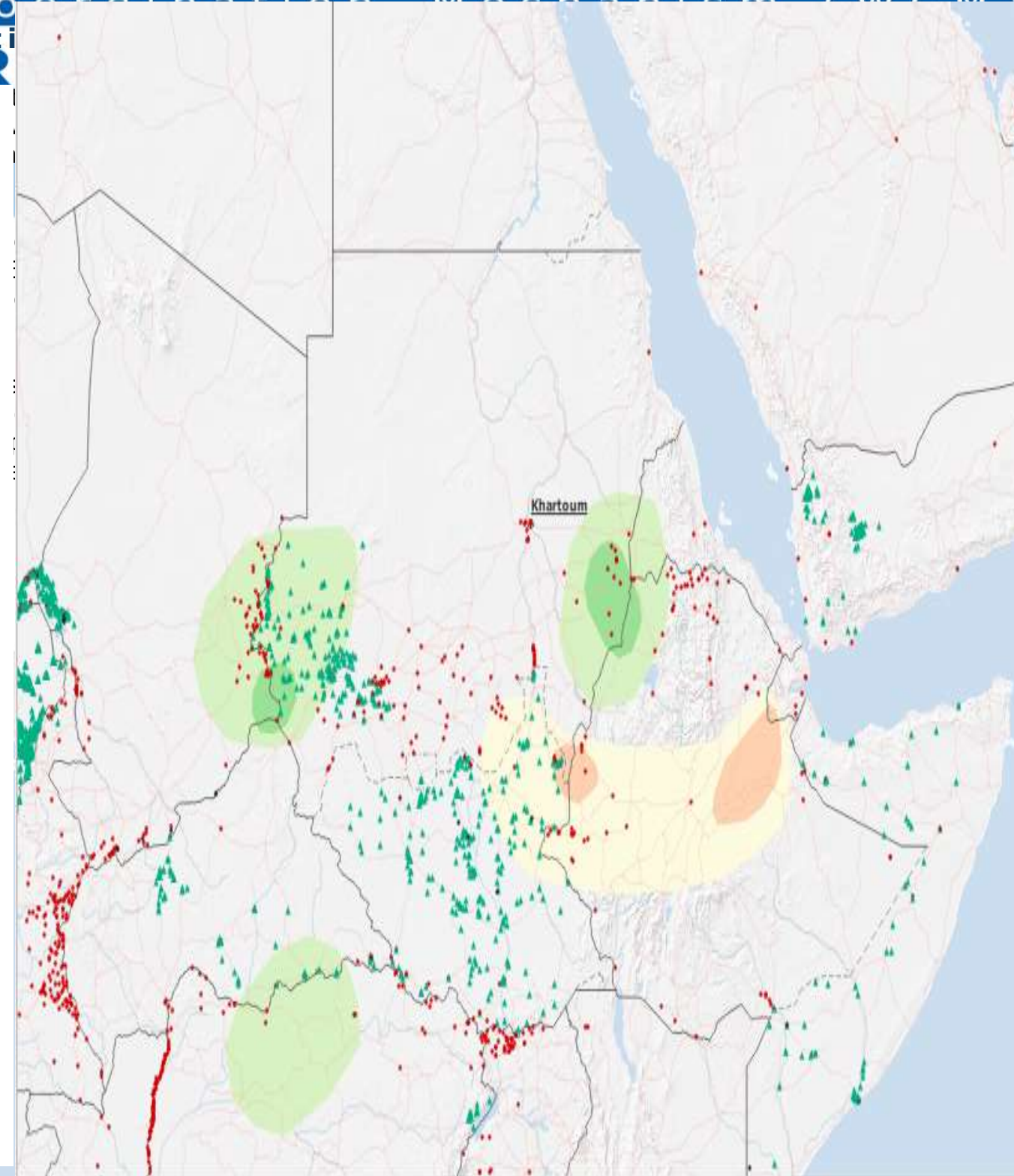
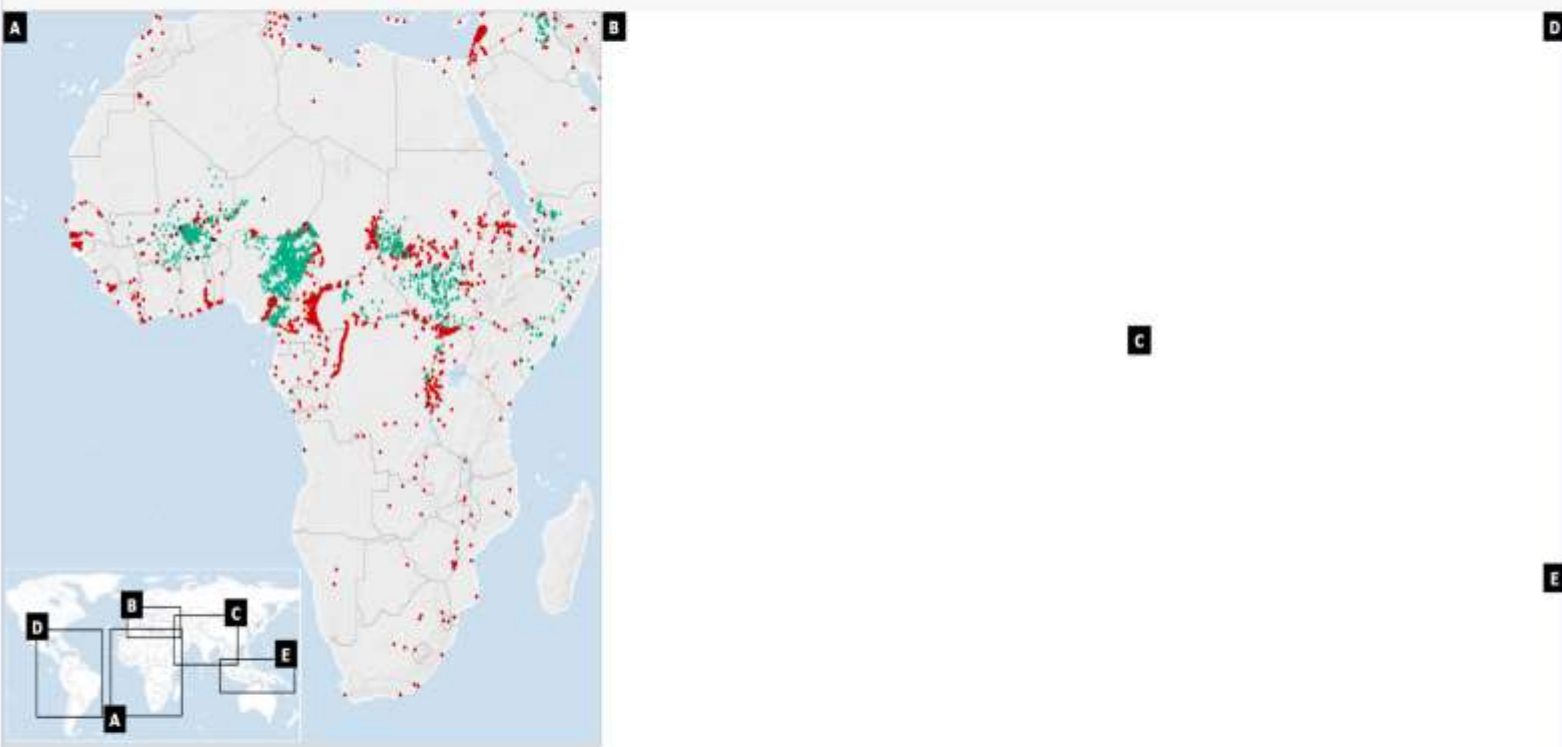


Issued on 31 August 2023 12:00 UTC, Validity: 01 September – 07 September 2023

hydromet events DROUGHT HEAT WAVE COLD WAVE LANDSLIDES HEAVY RAIN FLOODS FLASH FLOODS STORM STORM SURGE TORNADO VIOLENT WIND TROPICAL CYCLONE Forecast track uncertainty UNOCHA

Current situation and possible evolution

WMO Coordination Mechanism (WCM) WCM Global HydroMet Weekly Scan for UNHCR



On-going or Potential impacted areas over the next 7 days

*No guarantee is provided about these areas (completeness, geographical extent, etc.).
Source: Human expertise.*

UNHCR
Locations of forcibly displaced persons

- IDPs
- Refugees
- Asylum-seeker, Returnee

ACMAD
Precipitation outlook for the upcoming week

- Well Above Average
- Above Average
- Average
- Below Average
- Well Below Average

With contribution from ACMAD

Sources: ^[a]NMHSs, ^[b]WMO, ^[c]ECMWF, ^[d]ACMAD, ^[e]UNHCR, ^[f]NaturalEarth

Disclaimer: This product highlights HydroMet events which may be of interest to humanitarian agencies. WMO makes no warranty in respect of the correctness or completeness of this information, nor does this information represent the official view of WMO. This information does not replace the advice and guidance provided by the official meteorological services for these regions. For official national guidance please refer to the national hydromet and disaster management agencies. The designations employed in this map are in conformity with United Nations practice. The presentation of material therein does not imply the expression of any opinion whatsoever on the part of WMO concerning the legal status of any country, area or territory or of its authorities, or concerning the delimitation of its borders. The depiction and use of boundaries, geographic names and related data are not warranted to be error free nor do they necessarily imply official endorsement or acceptance by WMO. [Map Disclaimer](#)



African Climate User Interface Platform for the Health Sector



Products and Services available (3)



VIGILANCE MAP AND POLICY BRIEF FOR HEAT WAVE

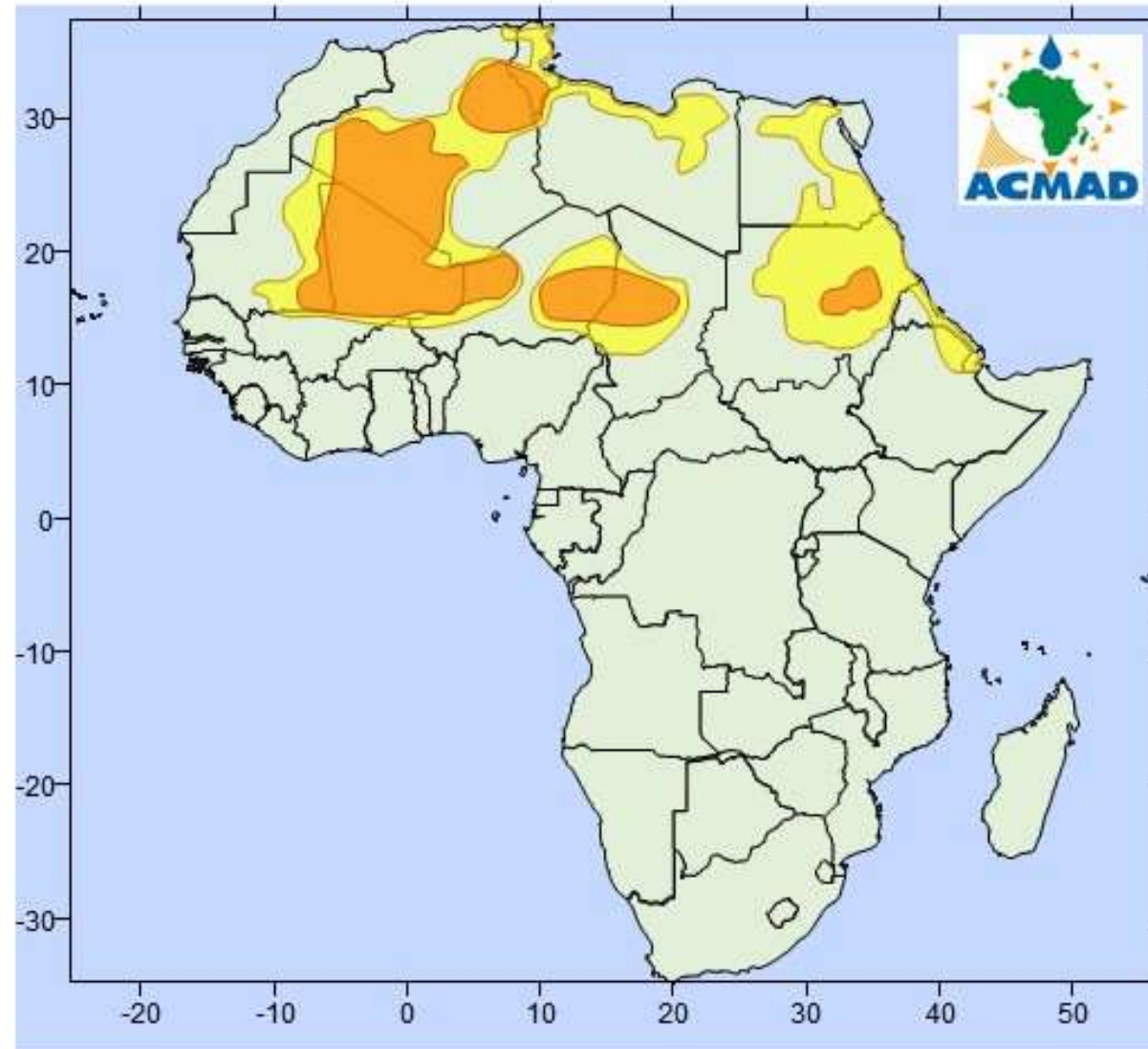
Valid From July 25 to 29, 2023

Issued on July 24, 2023



HIGHLIGHT: Moderate heat wave is expected in Mauritania, Mali, Algeria, Tunisia, Niger, Chad and Sudan.

Light heat wave is expected in Libya, Egypt Eritrea and Ethiopia.



	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 in Mauritania, Ghana, Togo, C.A.R, and Egypt 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 in Senegal, Mali, Burkina Faso, Benin, Niger, Nigeria, Cameroon, Chad, and Sudan 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 in Chad to take adaptive and preventive measures to the strong heat wave situation with NHMSs.

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 area, or concerning the delimitation of frontiers or boundaries.

Available twice a week :
Monday and Thursday

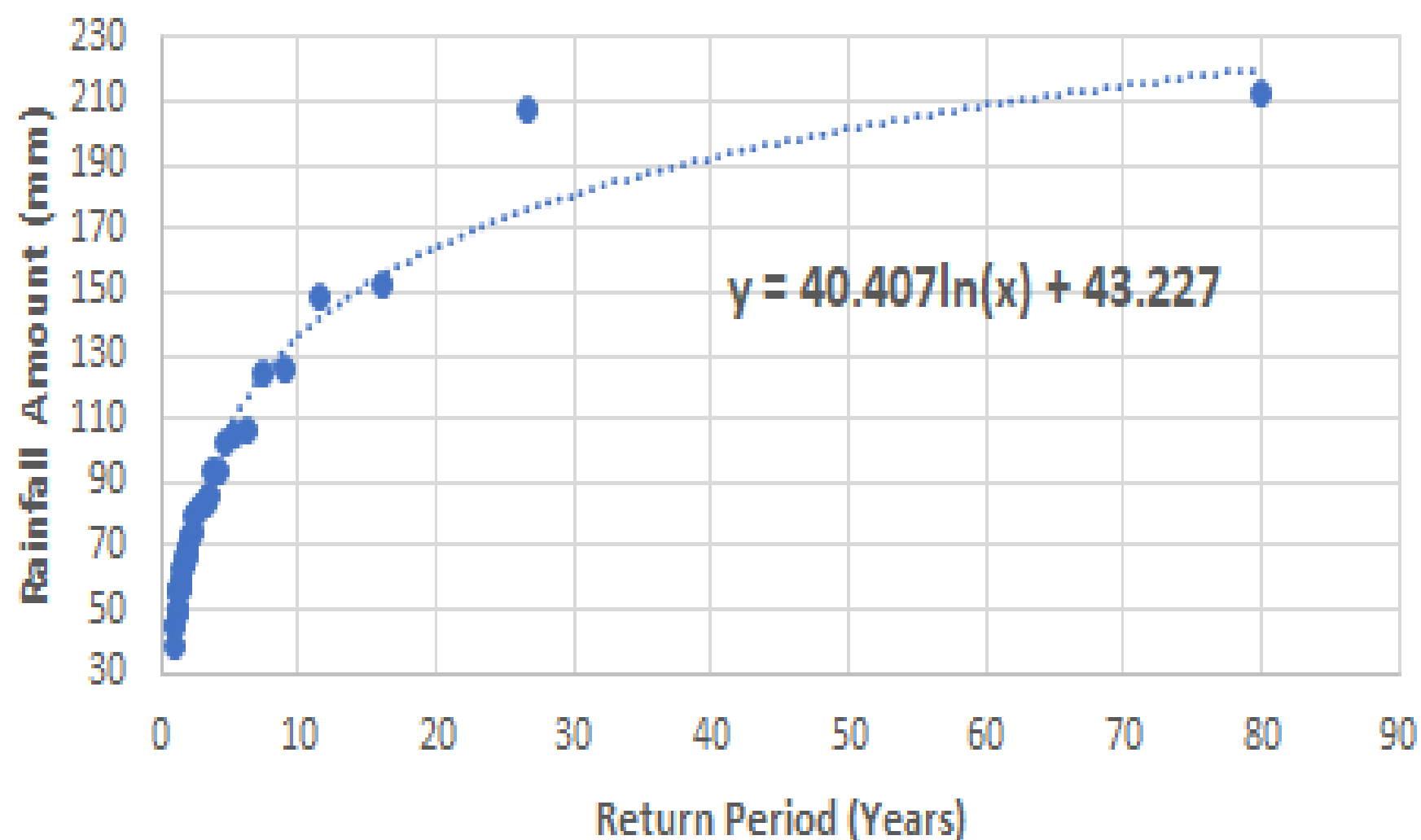




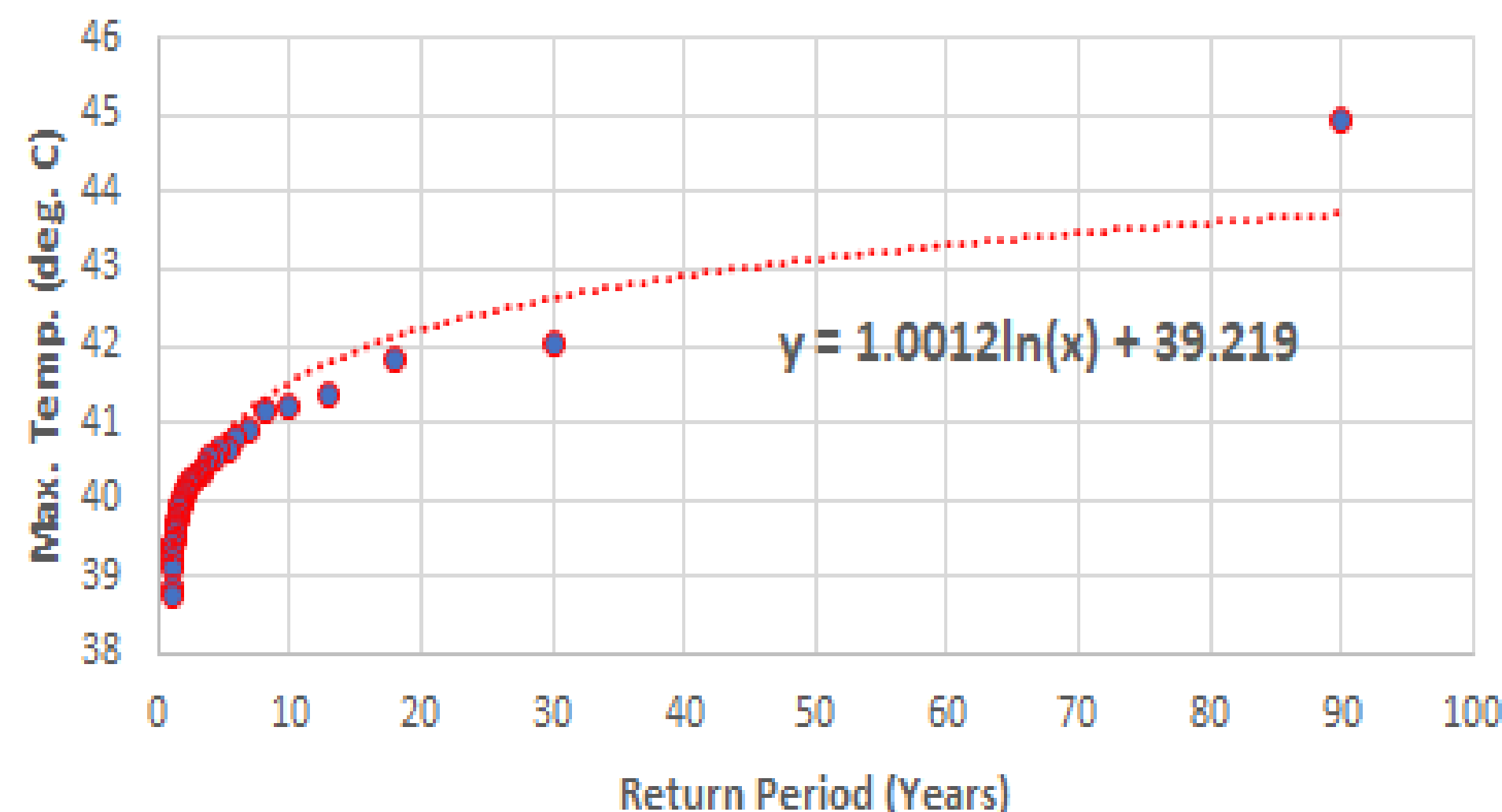
Best practices- DESIGN INFRASTRUCTURE WITH EXTREME RETURN PERIOD – PROTOTYPE SERVICE



Return Period of Extreme Rainfall Events over Abuja



Return Period of Extreme Temp. Events over Abuja

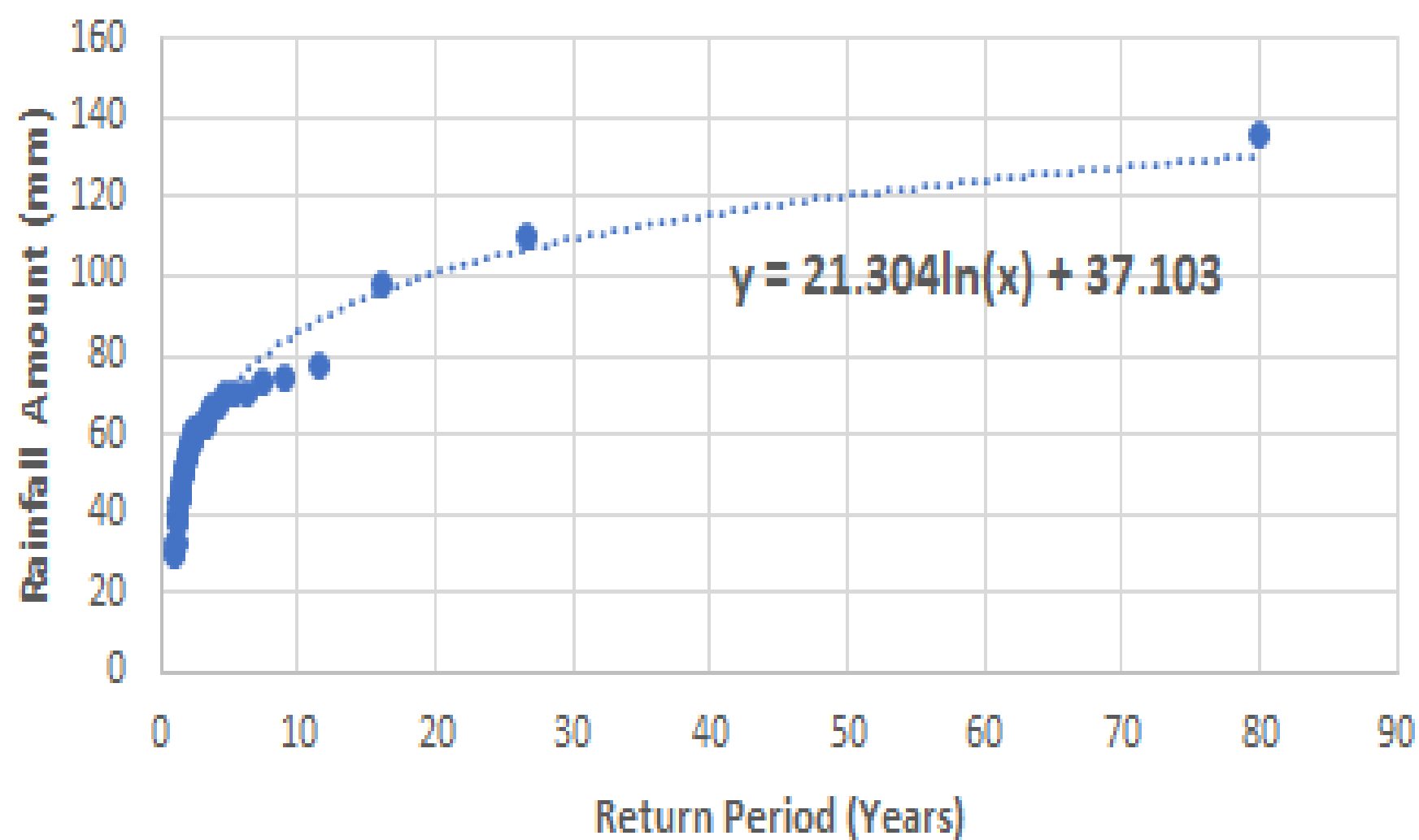




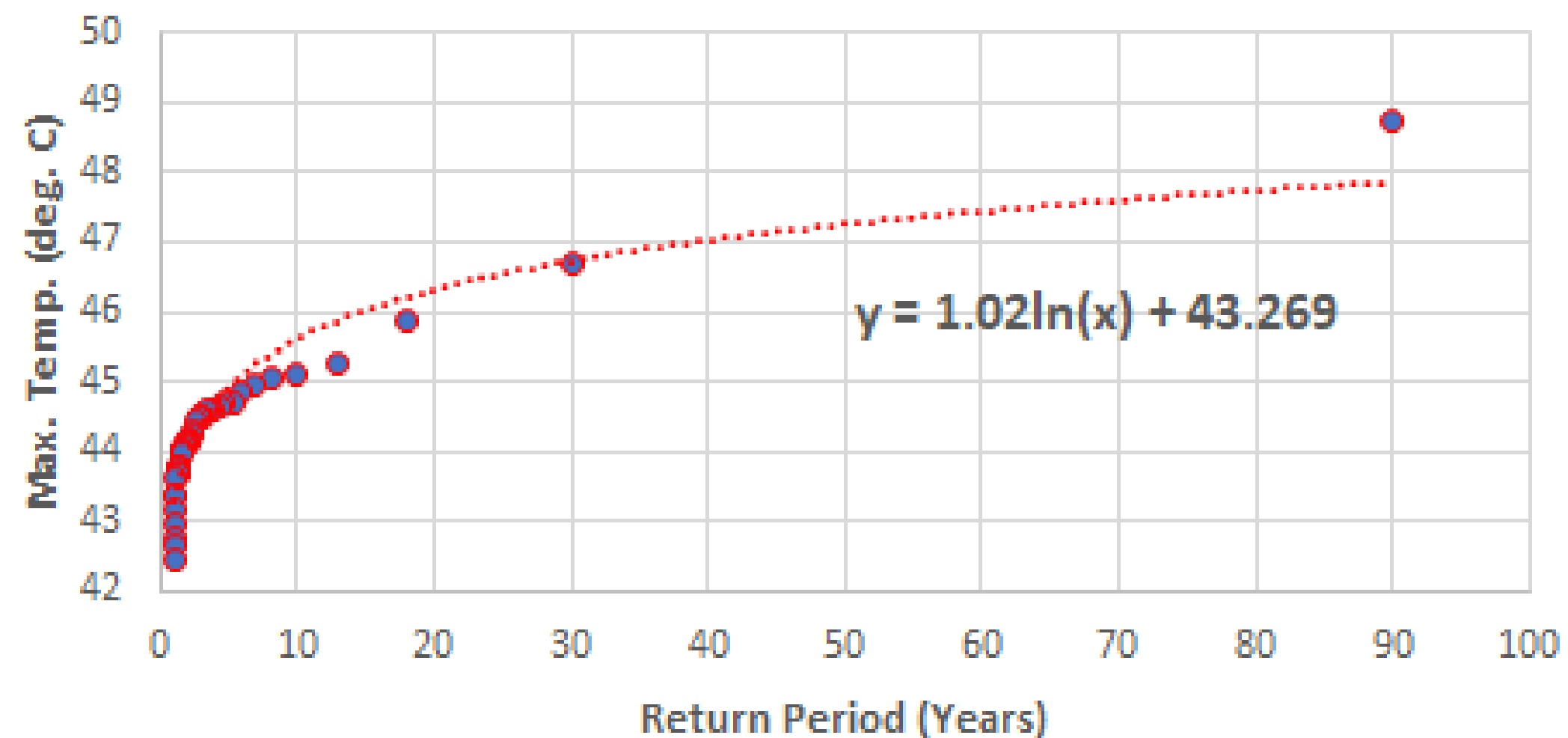
Best practices- DESIGN INFRASTRUCTURE WITH EXTREME RETURN PERIOD – PROTOTYPE SERVICE



Return Period of Extreme Rainfall Events over Niamey

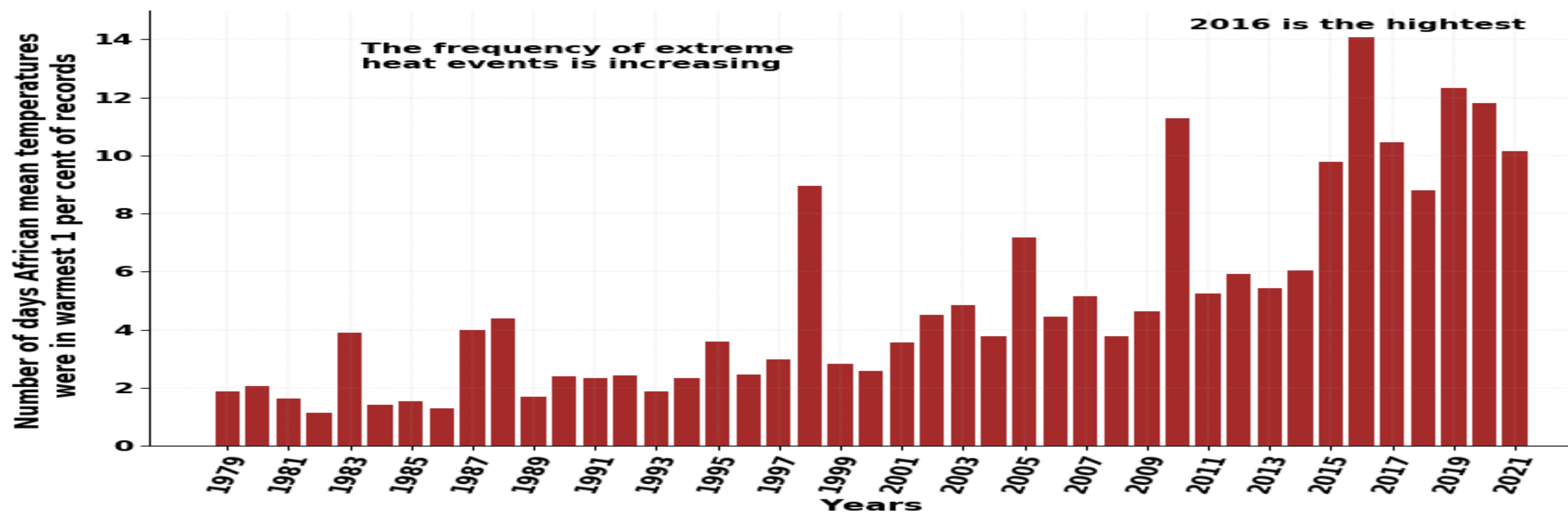


Return Period of Extreme Temp. Events over Niamey





Trends on number of extremely warm days across Africa, 3 times higher today compared to 40years ago. High temperatures and heat waves with wild fires are priority hazards for Africa



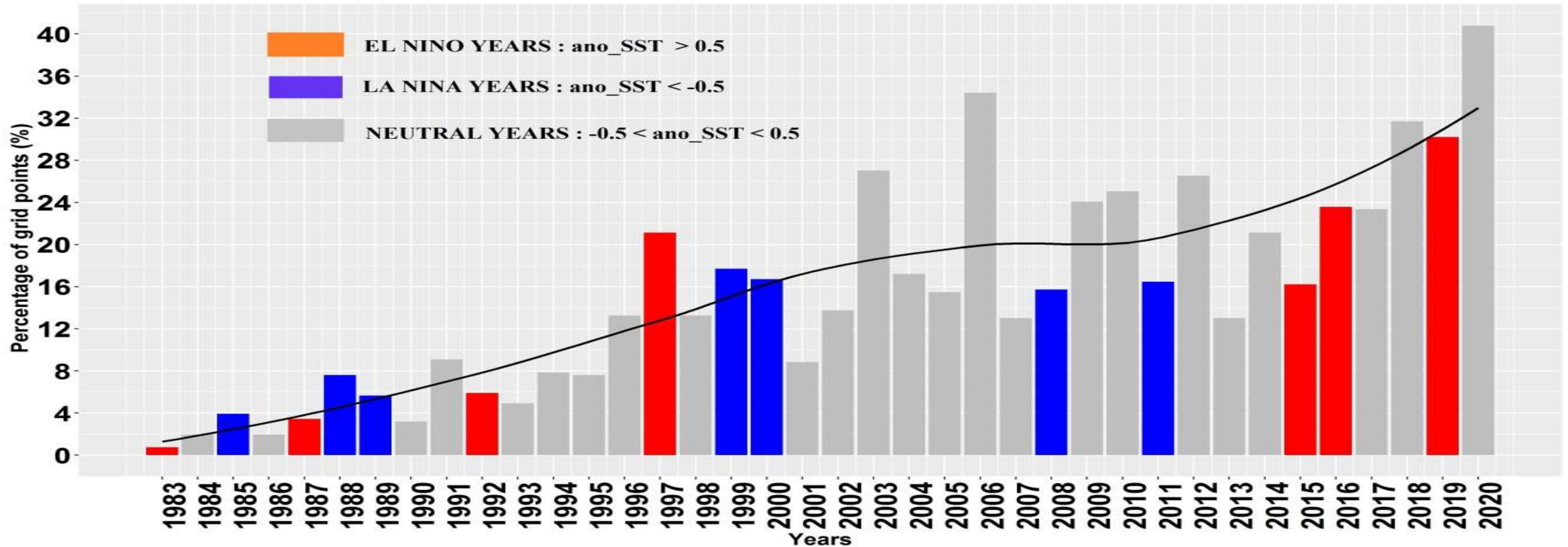


Best practices- DESIGN INFRASTRUCTURE WITH EXTREME RETURN PERIOD – PROTOTYPE SERVICE



Trends on the land surface hit by heavy rainfall. Heavy rains and floods are additional priority hazards for NDCs updates in Africa

Percentage of grid points over African land masses with daily rainfall above the 90th percentile For the period 1981-2020, from January to December





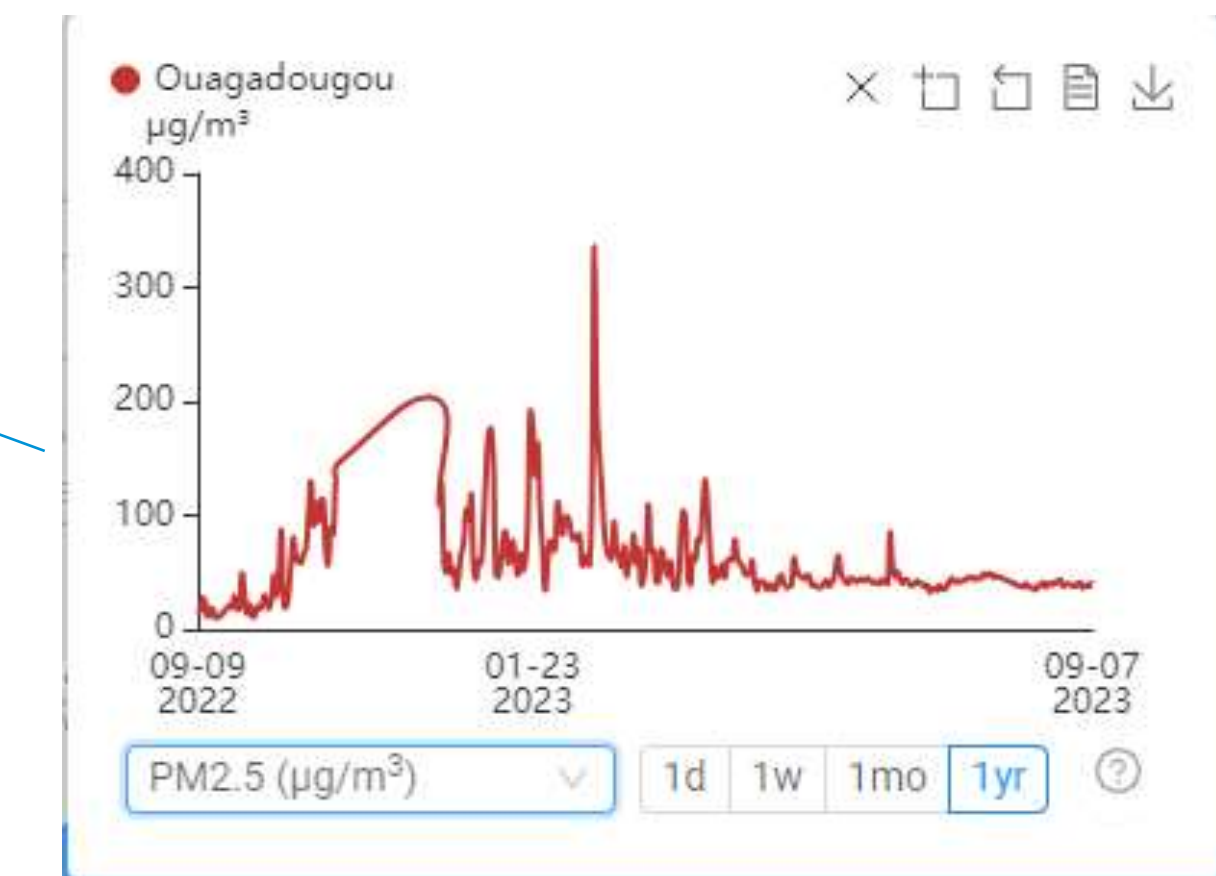
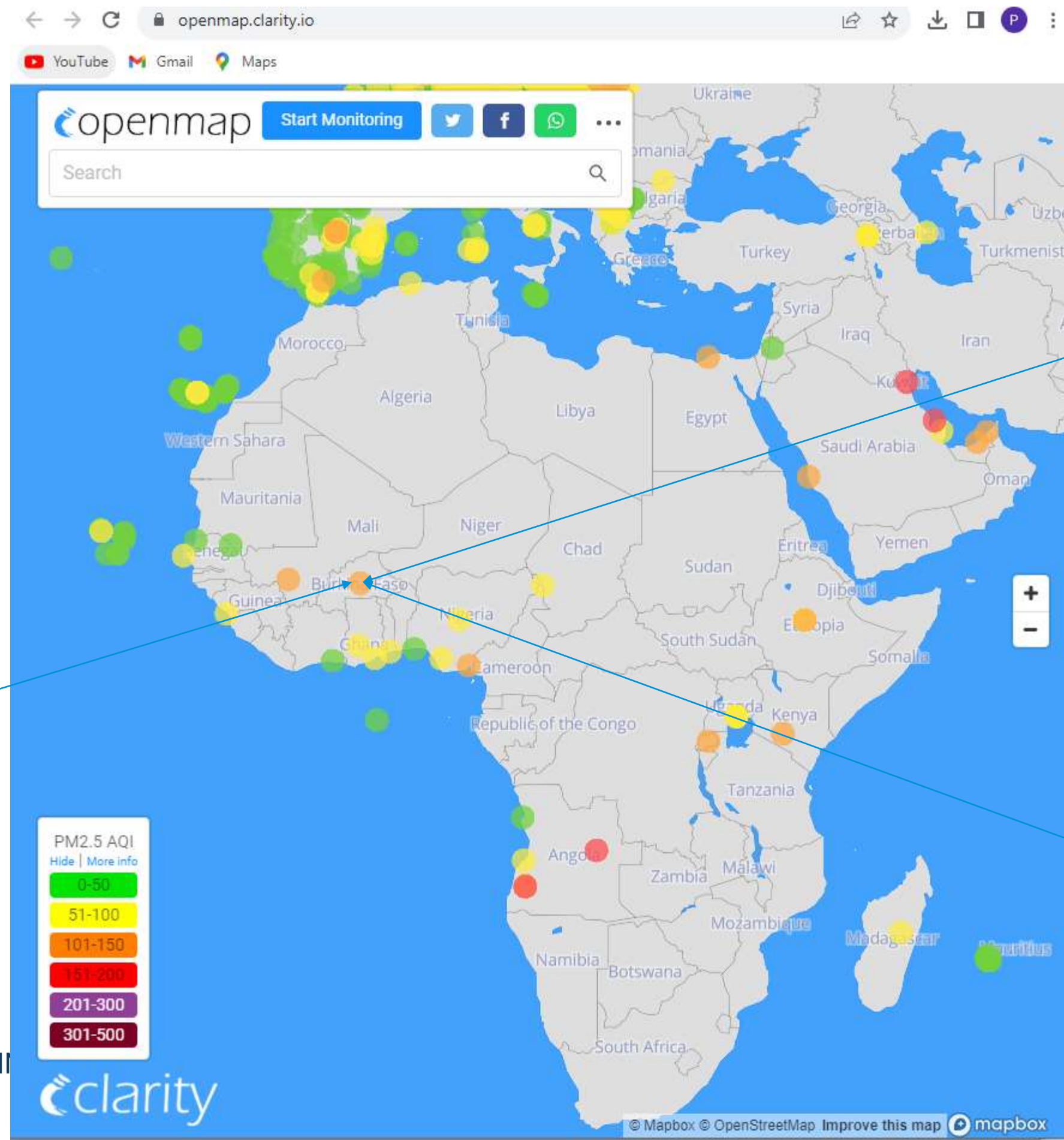
African Climate User Interface Platform for the Health Sector



Products and Services available (4)

Air Quality Monitoring in collaboration with Pen. State University

<https://openmap.clarity.io/>



Ouagadougou

AQI: 116 - Unhealthy for Sensitive Groups

PM2.5: 37.7 $\mu\text{g}/\text{m}^3$

Data from: Reference Site

Current as of: 09/08/2023 11:00

Datasource ID: DHAIT7754

Hide In Plot





04

Way forward & collaboration for the future (if needed)





- Develop online dashboards and platforms to collect, process and share climate information, knowledge, decisions and actions to better operationalize established UIPs
- Accelerate development of bespoke services through **co-design, co-development of services prototypes, experimentation and piloting and upscaling**
- **Systematic use of ISO 31 000** for risk assessment to facilitate products and services design
- Organize UIPs dialogue to accelerate active interactions and demonstration of benefits related to integrating climate information in decisions and actions

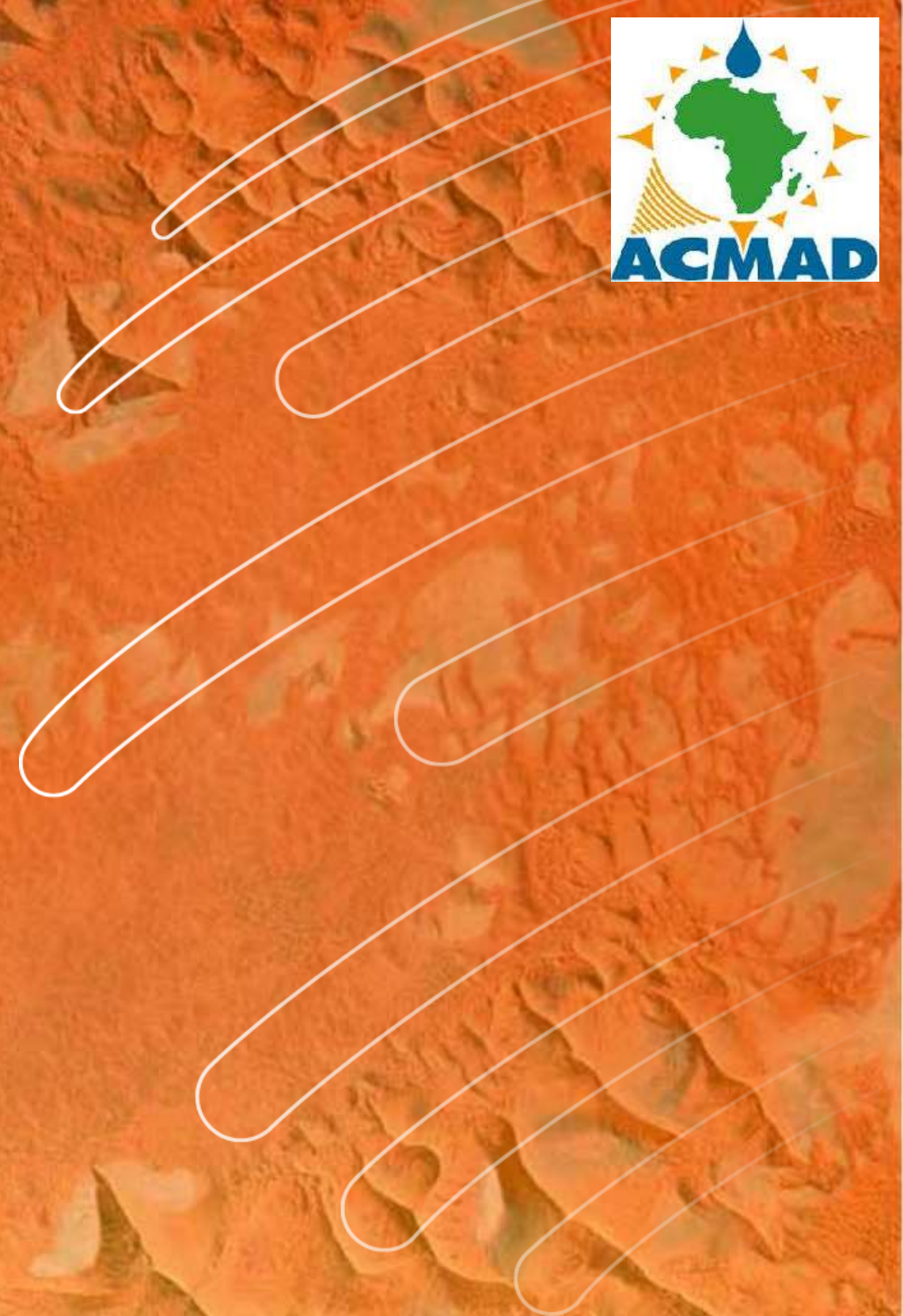




05



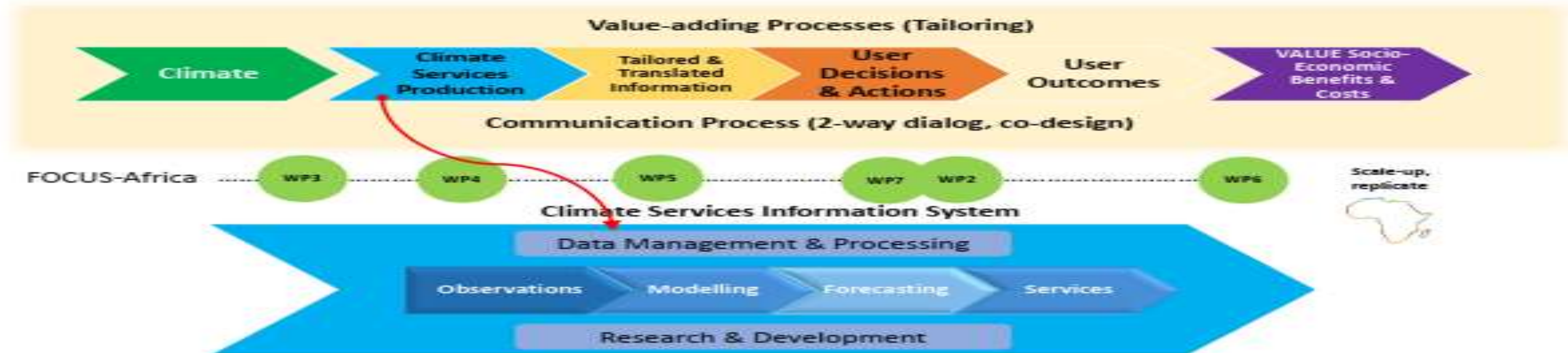
Conclusion





Mobilize partnerships (i.e ClimDev-Africa) to rehabilitate in stations and modernize data and information exchange networks

- Strengthen partnership with ECMWF on **data , tools and products** exchange to optimize benefits and untapped potentials demonstrated on the use of ECMWF systems and outputs
- Accelerate collaboration with Focus-Africa and other partner projects to share socio-economic benefits and cost assessment tools
- Structure a coordination mechanism along the full value chain
- Further accelerate application of annual state of Africa Climate report at COP, Africa Climate summits, CCDAs, DRR and other high level events and declarations





Intra-ACP Climate Services and Related Applications Programme



THANK YOU



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

