

Uptake of WMCs products for regional weather advisories / watches and climate outlooks

Pre INFCOM-3 Information Session
(25 March - 5 April 2024)

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African Centre of Meteorological applications for Development
(ACMAD) – Niamey-Niger



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3 & 4 April 2024

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**

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 (regional weather watch centre for Africa) since October 2022

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**

WMO Designated Regional Climate Centre for Africa since May 2015

Continental Multi Hazards Advisory Centre for Africa inaugurated in October 2022 as part of the Institutional Infrastructure of the African Union Multihazards Early Warning and Early Action System (AMHEWAS)

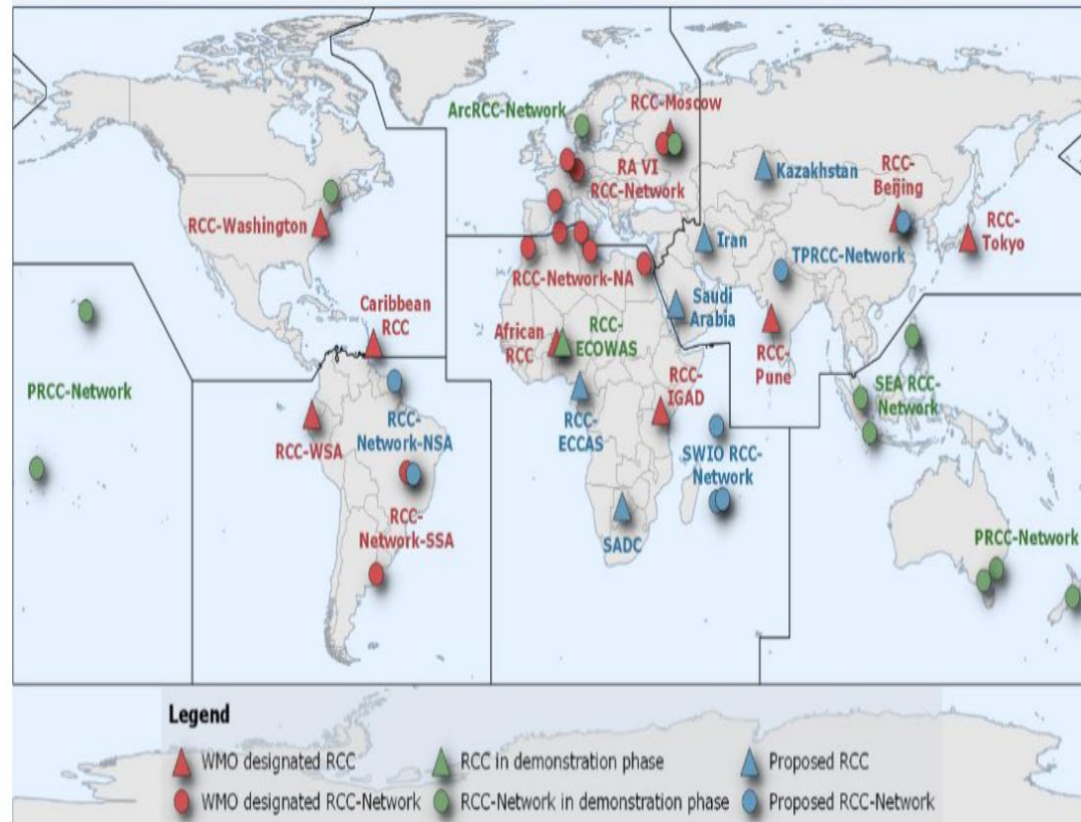


Figure 5: Established Regional Climate Centres

(WMO, 2022)

Final Concept Note - Inaugural sessio X Final Concept Note - Inaugural sessio X Rainfall 25-juillet-2023

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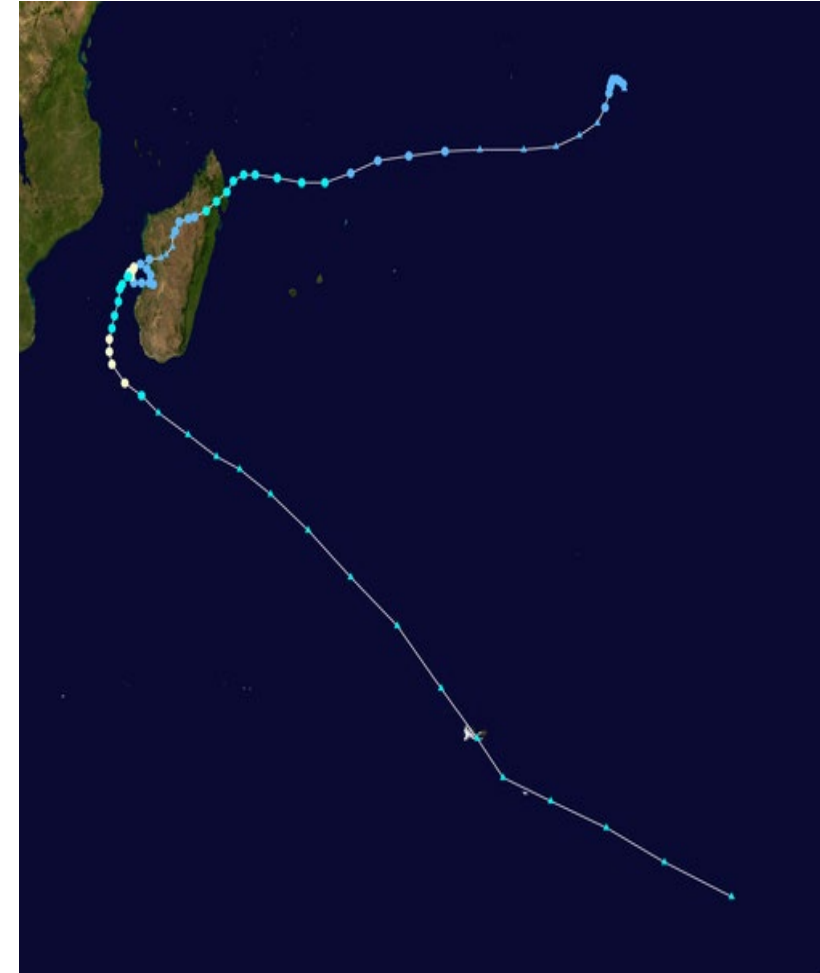
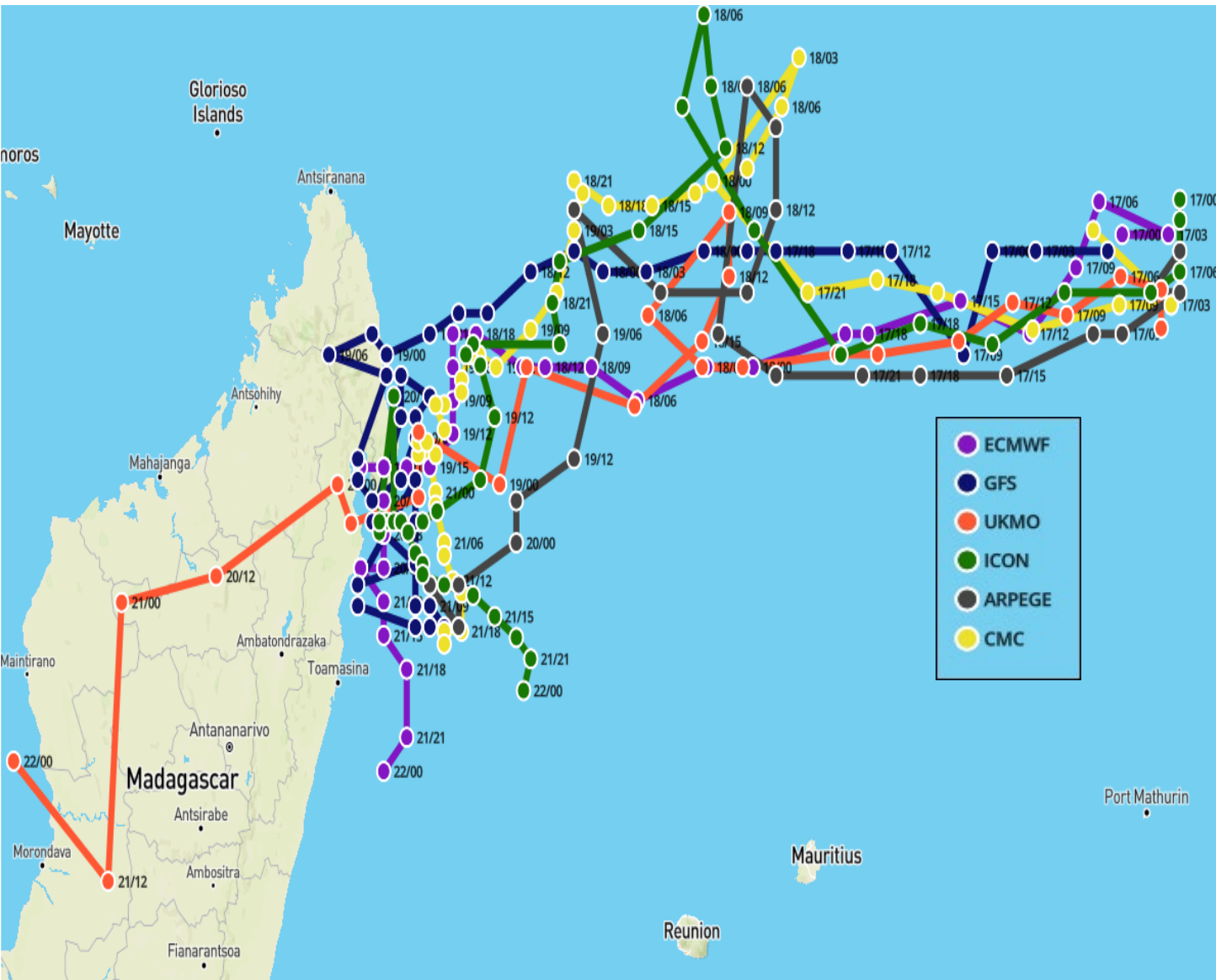
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Notes Comments 68%

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POOR MAN'S ENSEMBLE WITH 6 WMCs FOR MEDIUM RANGE CYCLONE TRACKING , VIGILANCE FOR HEAVY RAINFALL AND IMPACT BASED OUTLOOKS
CYCLONE CHENESO FROM JAN 16 to FEB 01, 2023

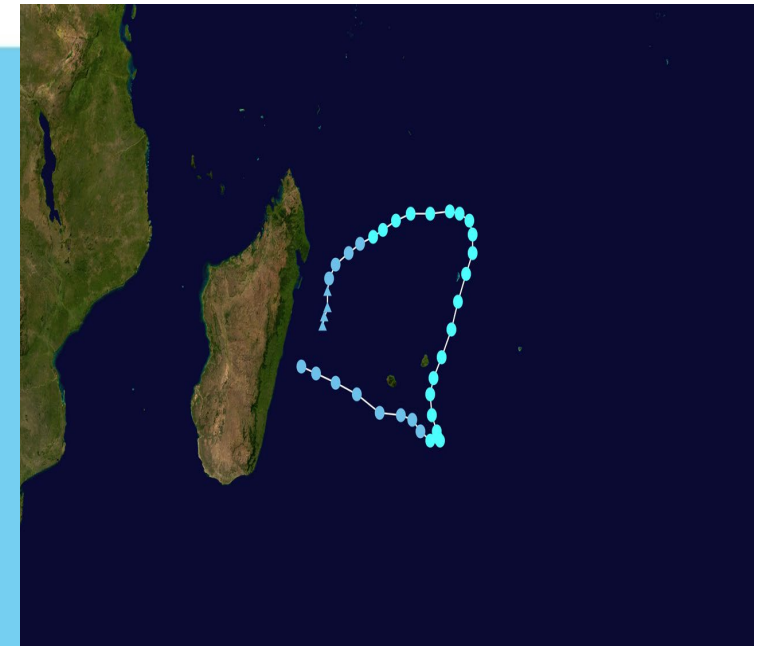
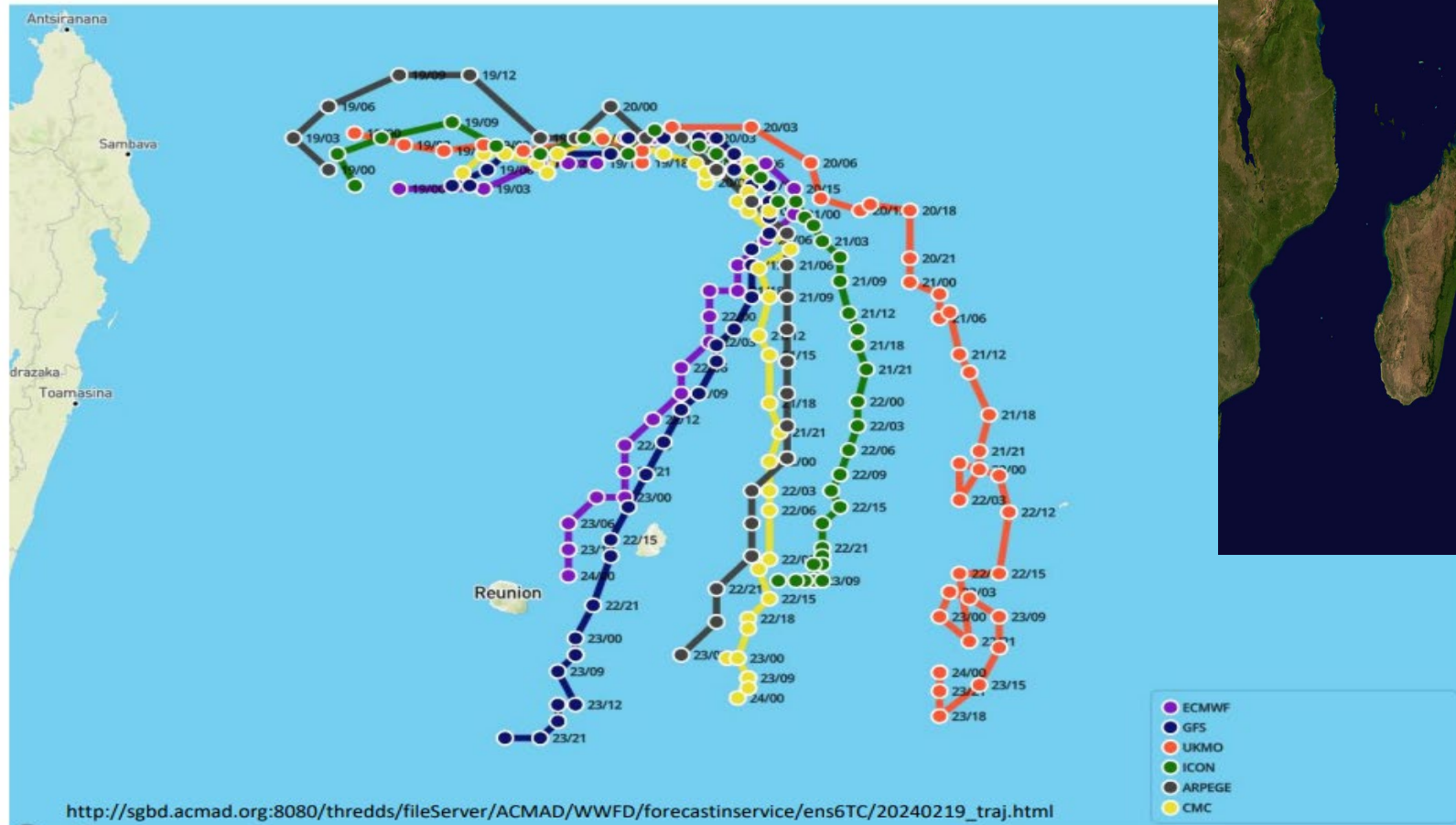


POOR MAN'S ENSEMBLE GUIDANCE PROVIDES THE TRACK UNCERTAINTIES MORE THAN 5 DAYS AHEAD OF **TROPICAL STORM ELEANOR** – WITH POOR MAN'S ENSEMBLE CLEAR MESSAGE ON VERY LITTLE LIKELIHOOD TO REACH CYCLONE STAGE WAS AVAILABLE

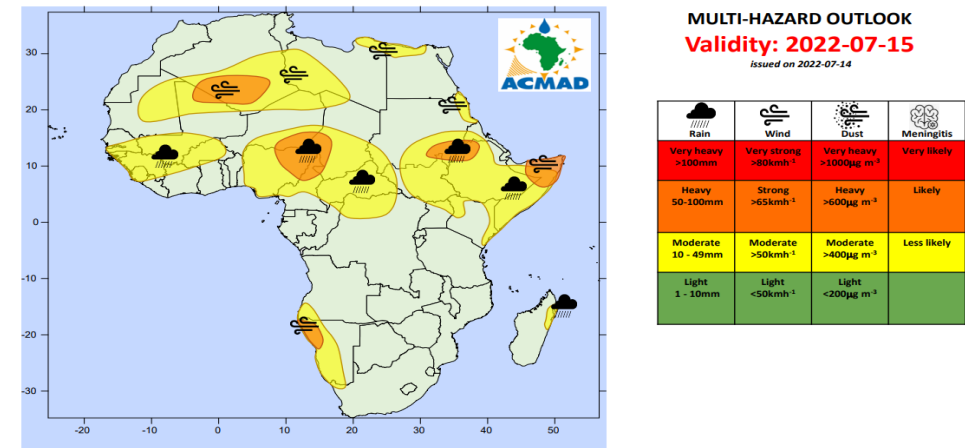
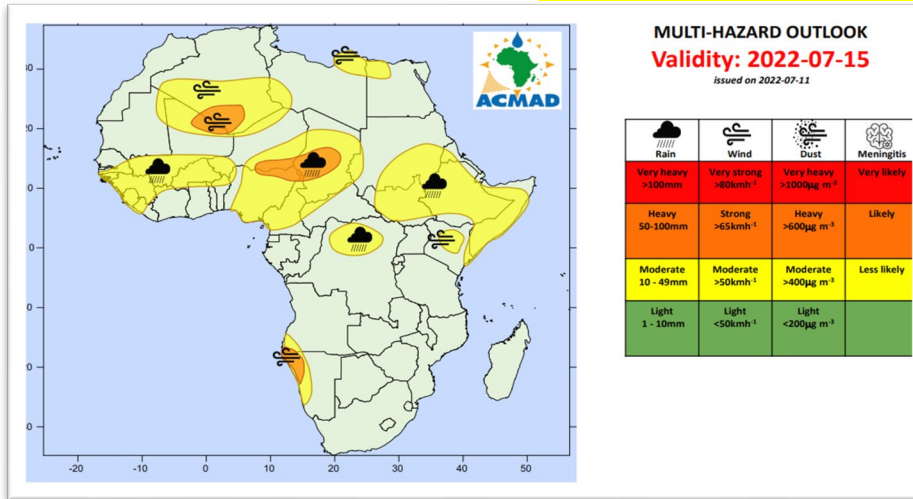
Tropical cyclone track forecasts from: 19-February-2024, 00UTC to 24-February-2024, 00UTC



Models : ARPEGE, CMC, ECMWF, ICON, GFS and UKMO

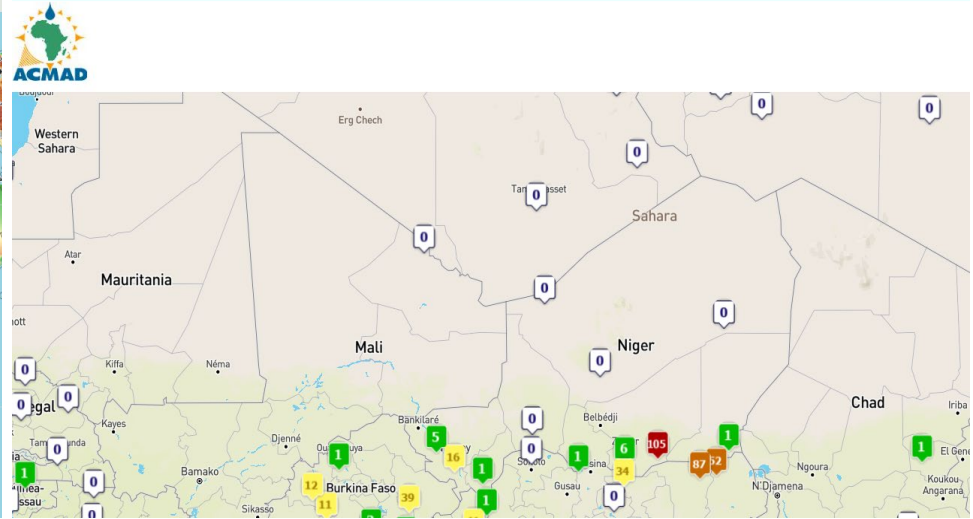
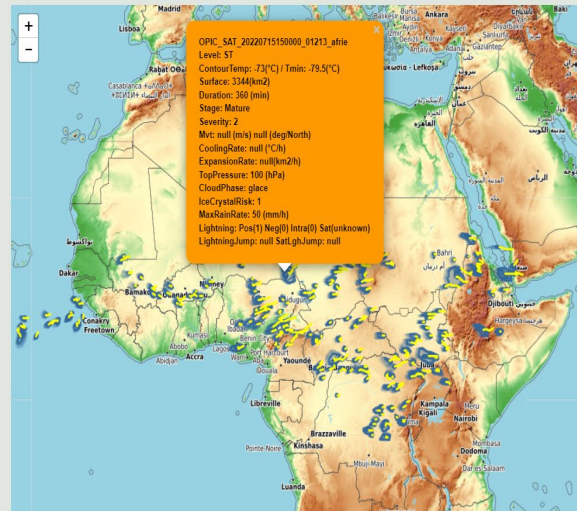
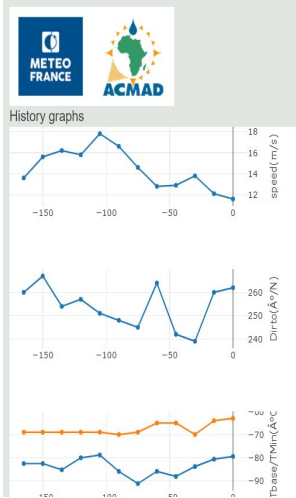


The first Heavy rain event leading to floods during summer monsoon of 2022 in Niger .
Vigilance product anticipated this hazard 4 days ahead (on Jul 11 2022) . Rapid Developing Thunderstorms product from EUMETSAT Data and Processing System by Meteo-France (major Global ACMAD Partners). NMHSs are trained on the Job to use continental vigilance and develop national warnings

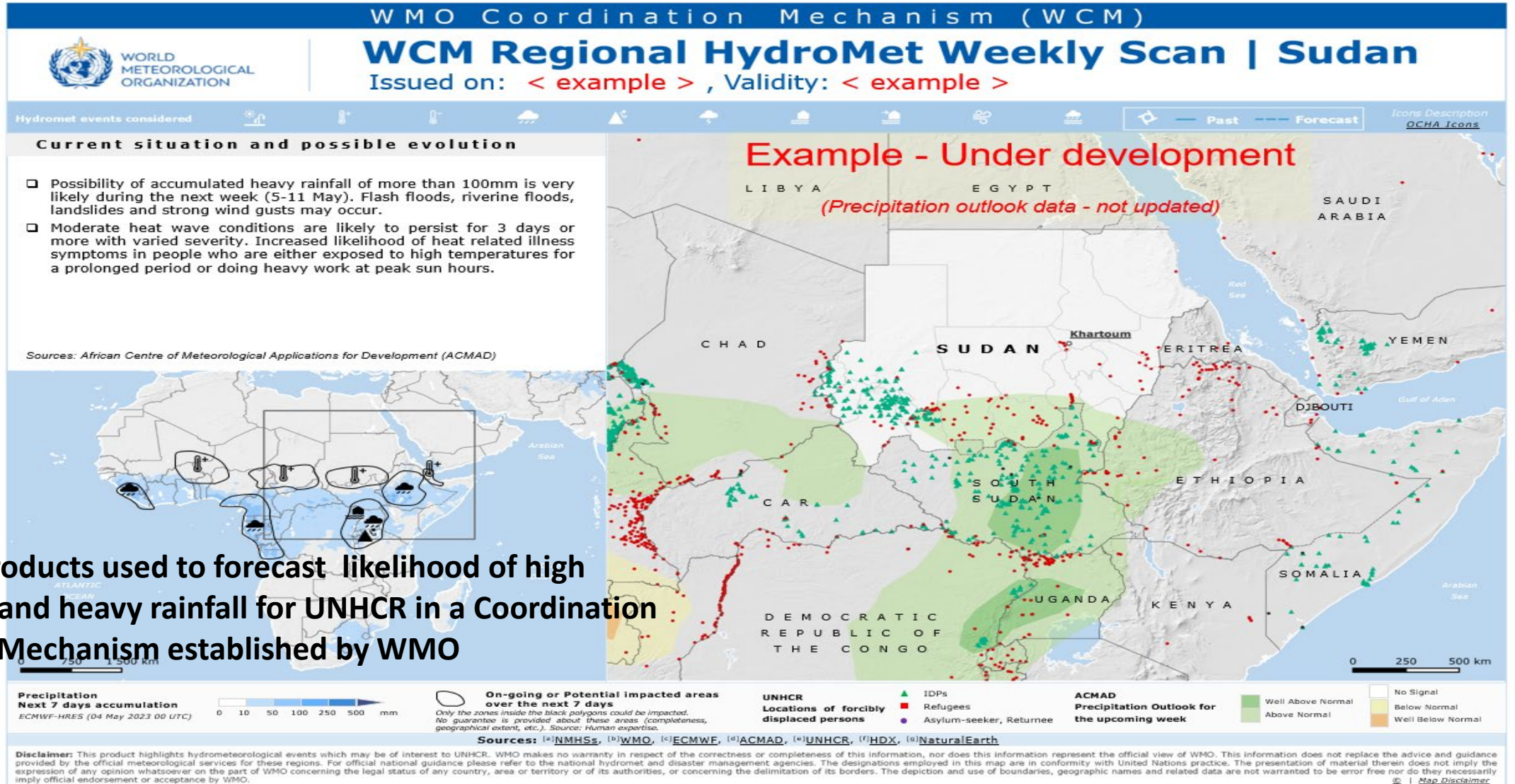


Observed daily rainfall (mm) on: 16-juillet-2022

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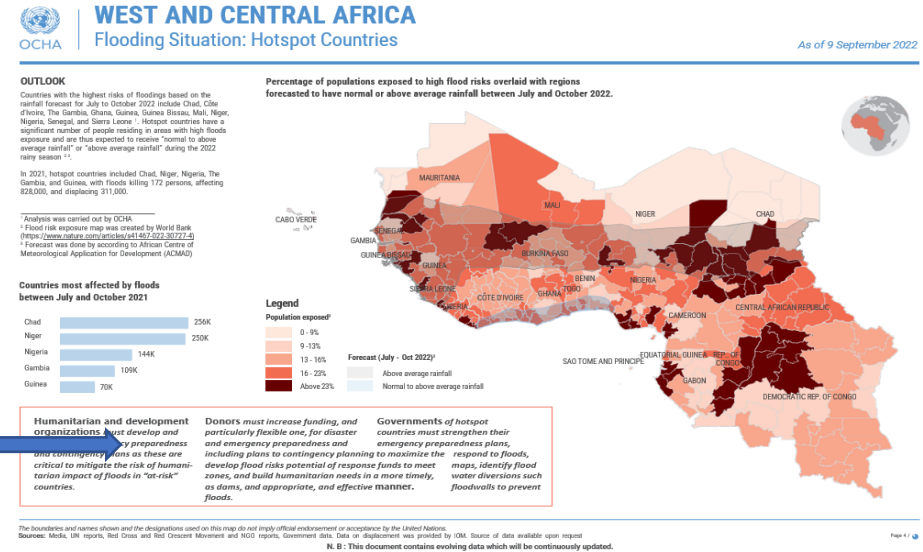
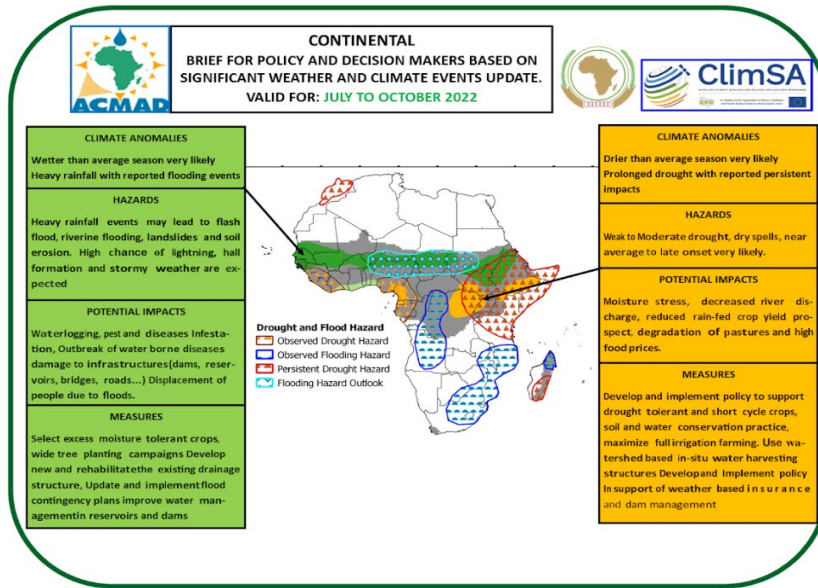
WMCs products used to forecast likelihood of high temperatures and heavy rainfall for UNHCR in a Coordination Mechanism established by WMO. Global products used to support UN organizations in the Africa Region



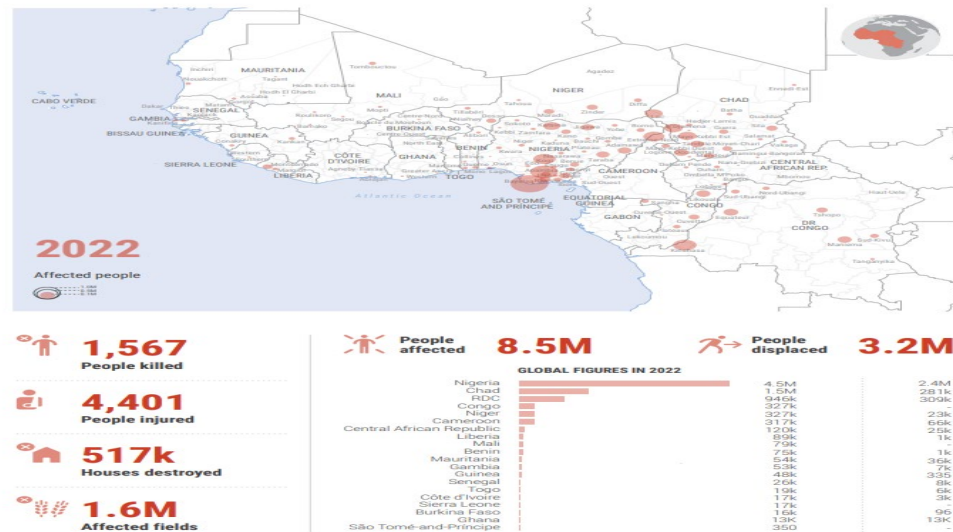
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GPC-LRFs products from WMCs supported impact based Climate Outlooks with actionable indicators

Co-production between ACMAD and UNOCHA West and Central Africa office



Actionable indicators is the % of people expected to be affected by floods during the West African monsoon season



RECOMMENDATION, LESSONS LEARNT AND WAY FORWARD TOWARDS EARLY WARNING FOR ALL

- **RCCs and RSMC Severe Weather** to support Outlooks , Advisories and watches needed for **weather and climate watches** guiding anticipatory action planning and implementation
- Medium range, sub seasonal and seasonal forecasts to be promoted in **RCCs and RSMCs to Seamless forecasting and service delivery highly required by users**
- Build **modern Nowcasting capabilities (RDT)** capitalizing on **Satellite data potentials** for national warnings in NMHSs
- **Train forecasters and DRR experts together** on *quality assessment and interpretation of forecasts from medium to seasonal range*
- Support countries *establish and operate national early warning Information system/centres* and DRR or humanitarian platform **or Situation Rooms** for emergency planning and implementation
- **Support disaster managers to access vigilance and watches** and give feedbacks to NMHSs on *impact information* for strong winds, heavy rains, dust storm, high temperatures outlooks, drought ...
- Support measures to *reduce risks or exploit opportunity* through forecast based **integrated emergency planning , budgeting, financing and implementation**

Thank you.



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