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Elements of building domestic capacity for an effective adaptation strategy in Africa

Case of ACMAD On Job Training Program under ClimSA Nov. 20, 2024, Baku, Azerbaijan



Prepared by the ACMAD Team
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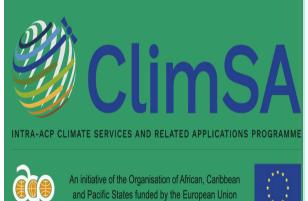




ACMAD CORES MISSIONS

Created trough 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 <u>Weather and Climate Watch Centre</u> for Africa with Monitoring, *forecasting* and *early* warning for droughts, floods, tropical cyclones and other extreme events as functions
 - ✓ The Continental Climate Watch Centre was achieved with ACMAD designated by the WMO
 Congress after a successful demonstration phase as a Regional Climate Centre for Africa in May
 2015;
 - ✓ The Continental Weather Watch Centre was achieved with the Continental Multi-Hazards
 Advisory Centre inaugurated in November 2022, at ACMAD providing contributions to
 continental watches and disaster situation reports to the situation room operations at the
 African Union Commission Headquarter in Addis Ababa
- ➤ <u>Institution of excellence for the Applications</u> of meteorology for sustainable development with capacity building, methods, tools and products development, contribution to global weather and climate programs, database, research and innovation as functions

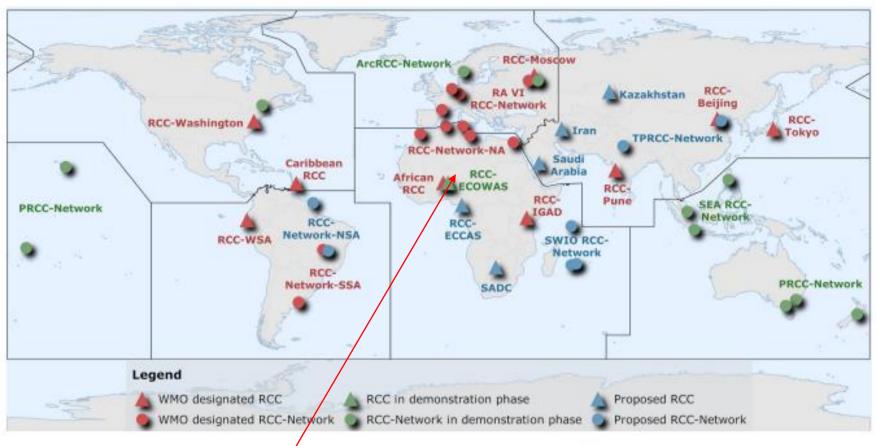


Since July 2024 ACMAD is a member of the NoE (Africa Network of Excellence for DRR)



INSTITUTIONAL FRAMEWORK

WMO RCC Status Worldwide





ACMAD

Continental Multi-Hazards Advisory Centre



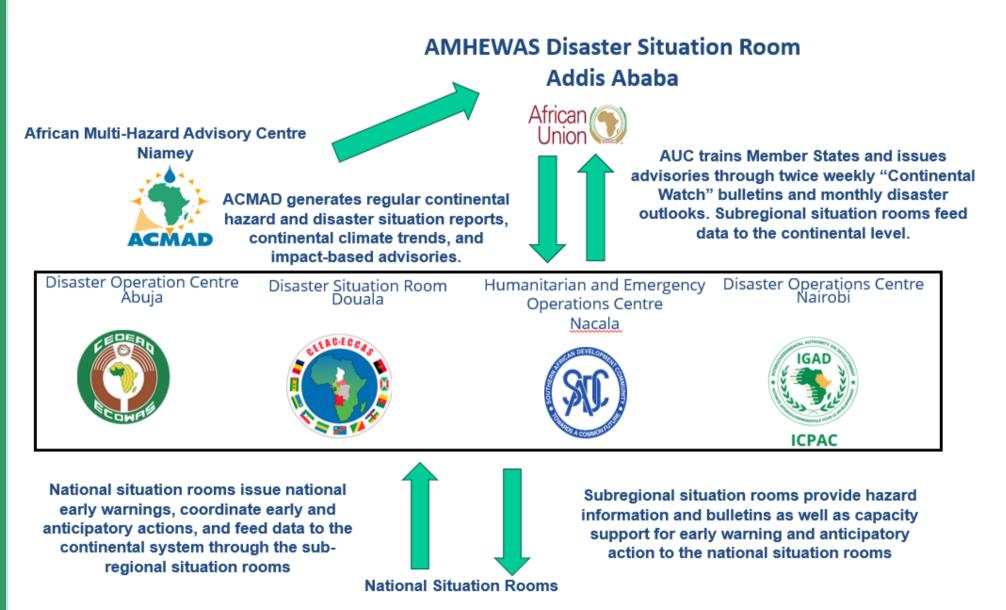




Stakeholder Involvement

- > ACMAD adopted a cascading communication chain to facilitate the movement of information from its source to the final users;
- Information moves from the global forecast centres on the international scale and national meteorological services on the country scale to regional organisations such as IFRC, OCHA, national civil protection agencies, DRM, UNHCR, WHO and UNDRR as well as AUC Situation Room.

Information finally reaches other national and community level stakeholders.



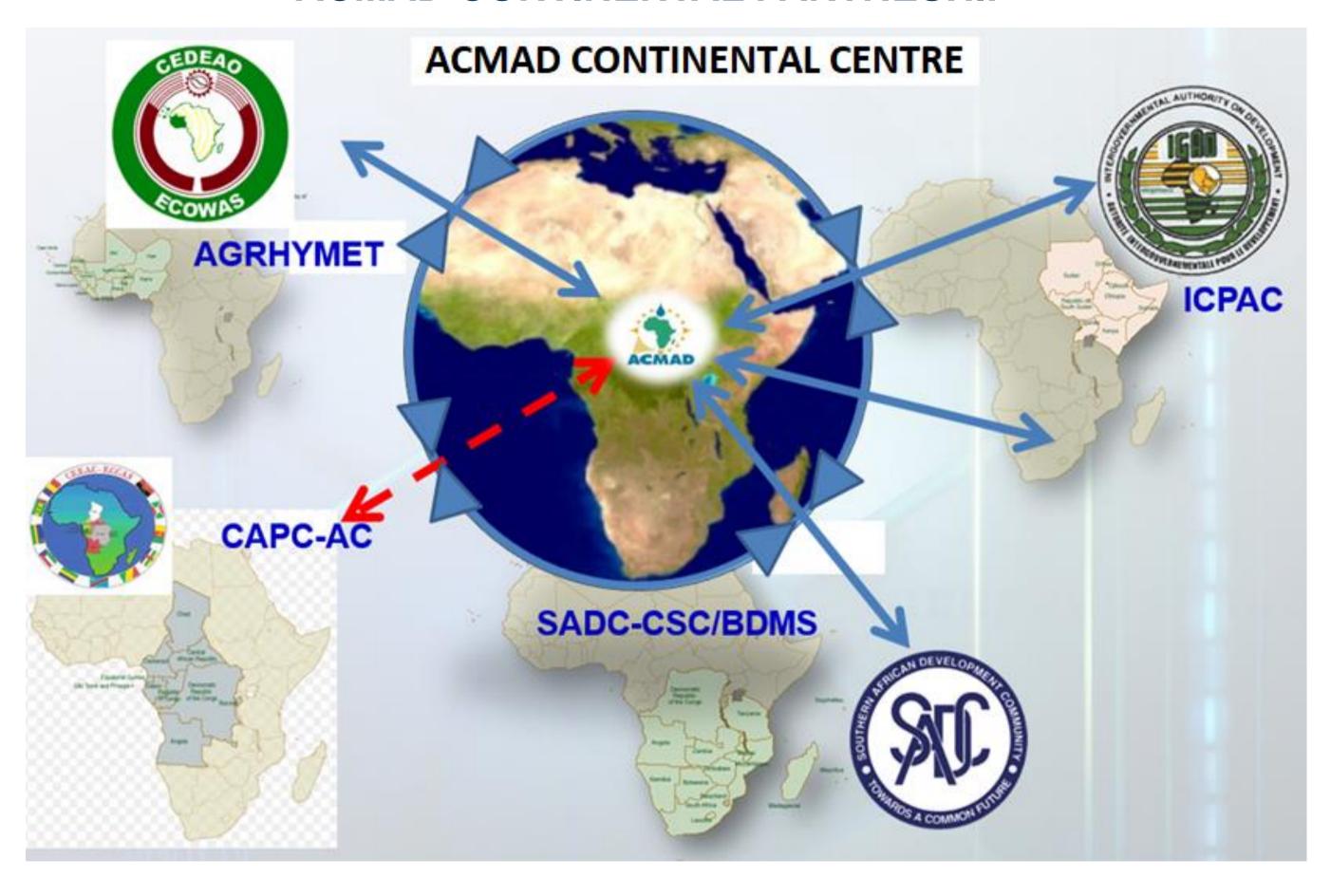
ACMAD Support the AMHEWAS program.
The ACMAD Sit Room is now operational as part of the African multi-hazard early warning system for rapid action and provides twice-weekly Continental Watch, information on extreme rainfall, high winds and cyclone tracks, as well as collaborating with the AUC SitRoom and Sit Room ICPAC in the production of Situation Reports.

The centre also contributes to the organisation of ad-hoc briefings for anticipatory action.





ACMAD CONTINENTAL PARTNESHIP









ACMAD'S PRESENTATION

- Enhance African countries / SNMHscapability to understand, anticipate and manage the impacts of weather and climate fluctuations to support the achievement of sustainable development and poverty reduction (provide user oriented information & products);
- Consolidate weather / climate monitoring efforts in Africa, better understand the African weather systems (monsoon) systems and Improve forecasts;
- Facilitate exchange of information, experience and expertise; and strength sustainable institutional mechanisms;
- ➤ Provide advanced notice on potential weather and climate related hazards and information for the implementation of policies for vulnerability reduction and adaptation to climate variability and change

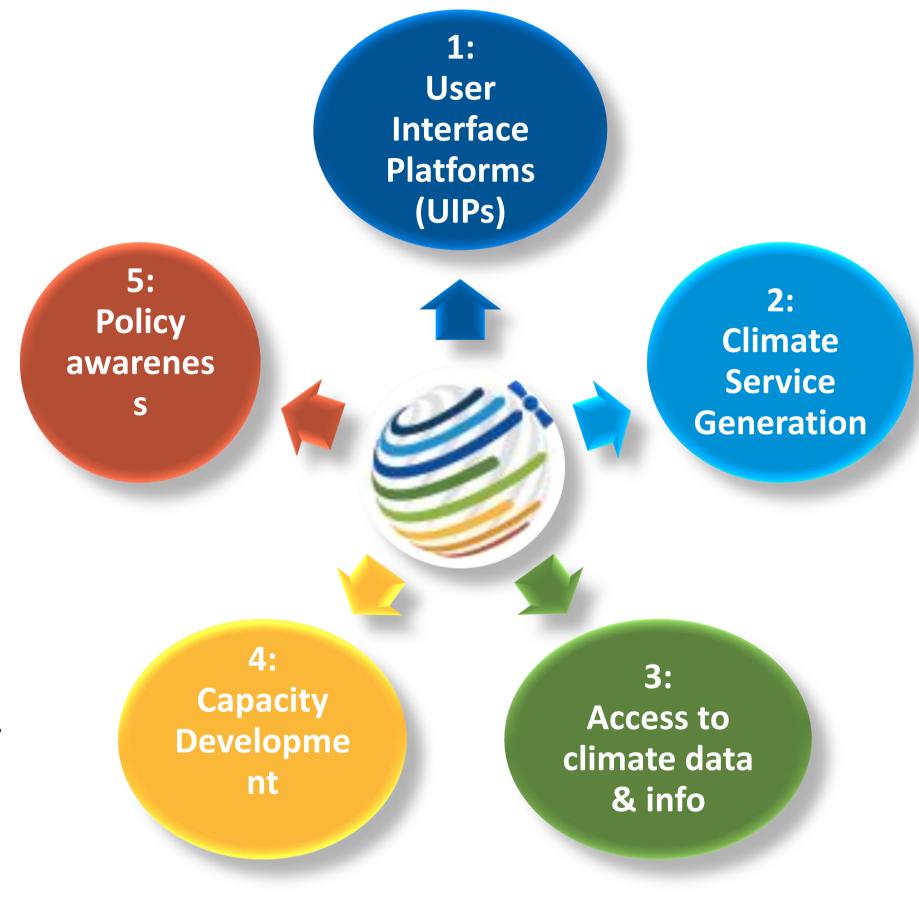


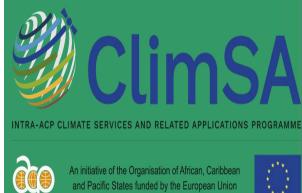


ACMAD's ClimSA Project - Outputs

Objective: To foster sustainable development on the continent by improving the decisionmaking processes and practice through informed adaptation options to climate variability and change

Purpose: strengthen the entire climate services value chain from access to information, generation and provision of climate services, and engagement and capacity of users to ensure effective utilization of the services









Output 4. Enhanced capacity of Africa to generate and apply climate information and products relevant to their particular concerns

- >ACMAD Curricula, programs and materials have been updated/developed to provide training:
- ✓ on data rescue and management,
- √ data processing,
- ✓ analysis and visualization using state of the art tools,
- ✓ nowcasting and climate monitoring and assessment,
- ✓ synoptic and meso-scale forecasting,
- √ long range forecasting,
- ✓ climate change projections and scenarios,
- ✓ climate services delivery and application
- In Jul 2023, ACMAD provided lectures and practical sessions during the 4-week Competency course for forecaster of National Meteorological and Hydrological Services (NMHSs) from French Countries organized by EAMAC and WMO on severe weather forecasting tools including NWP and nowcasting products available to the in West and Central Africa. The courses provided the foundations and core knowledge required to successfully demonstrate the necessary competencies in warning issuance for relevant weather phenomena
- In May 2023, ACMAD attended and actively participated to the CREWS/SWFP- West and Central Africa Training Workshop on Severe Weather and Impact-based Forecast and Warning Services, organized by RSMC-Dakar and WMO in Monrovia/Liberia.





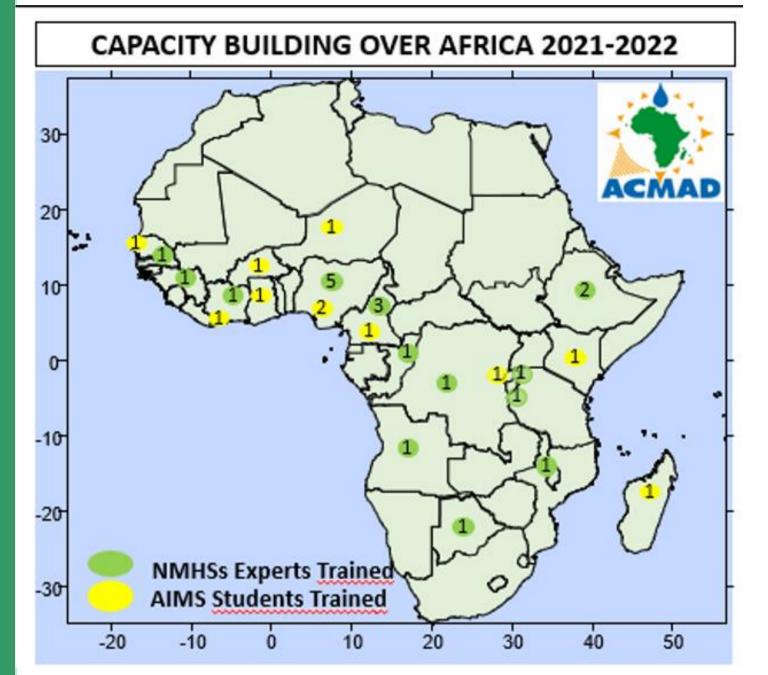
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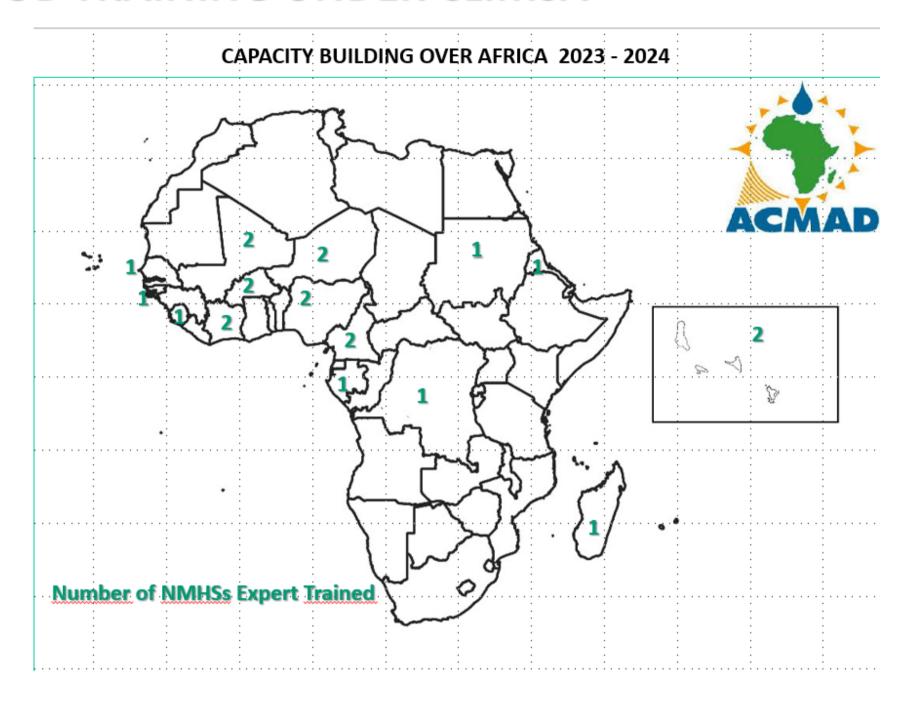
- Training materials on verifications, climate variability and seasonal forecasting prepared and delivered to RCCs and NMHSs staff at RCOFs (PRESAC, PRESASS, SARCOF), ACCOFs, during On-the-Job Training and Secondment sessions;
- > On-the-Job Training and Secondment event have been organized in ACMAD at the benefit of NMHSs;
- ▶11 (05 Women) Internships have been organized with participants from the MATHEMATICAL SCIENCES FOR CLIMATE RESILIENCE INTERNSHIP PROGRAM (MS4CR-IP) of the African Institute for Mathematical Sciences (AIMS). The internship program cover:
 - ✓ Meso Scale Convective system monitoring, detection, forecasting and early warning in Africa
 - √ Verification and statistical interpretation of forecast performance of Numerical Weather Prediction
 (NWP) models.
 - ✓ Climate data analysis for resilient agriculture systems in Africa
 - ✓ Web sites, Geo portal development providing Climate Services for Africa's resilience to extreme events





OVERVIEW OF THE On JOB TRAINING UNDER CLIMSA





From July 2021 to November 2024:

- ✓ 42 Experts from NMHSs from 19 Countries trained in nowcasting, climate monitoring and assessment, synoptic and meso-scale forecasting, long range forecasting as well in the elaboration of vigilance and advisory Bulletin and Onset monitoring and Outlook
- √ 11 Master Students from AIMS (Africa Institute for Mathematical Science) were exposed to different tools, methods and technics of weather forecasting and climate forecasting.



Testemonial from On Job Training Beneficiary









ON THE JOB TRANNEE / OCT - NOV, 2024

"This combined training in weather prediction and communication gave me the opportunity to sharpen my forecasting skills, especially for extreme events like dust storms, heavy rainfall, and heatwaves. But more importantly, I learned how to turn science into actionable and user-friendly information that can truly make a difference"







FORMATION-ACTION / AVRIL - AOUT 2024

Cette formation de quatre mois à ACMAD s'aligne parfaitement avec mes aspirations professionnelles. Les compétences acquises, notamment en prévision saisonnière et en prévision basée sur les impacts, représentent une expérience précieuse pour l'Union des Comores. Elles contribueront à améliorer l'anticipation et la réponse aux défis futurs, réduisant ainsi les pertes économiques tout en garantissant la sécurité alimentaire

MIROIRDINE KAMARDINE

Ing. Agronome de la Direction de la Météorologie de l'Union des Comores





Technical Briefings and Debriefing

A dedicated Information platform/Portal to exchange best practice and knowledge, improve our forecast and early warning and encourage cooperation between countries and region







CHALLENGES

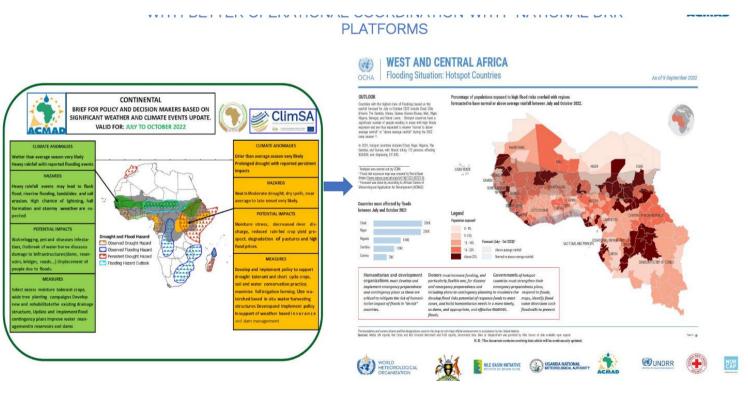
- Funding constraints
- High demands from NMHSs
- End of the MATHEMATICAL SCIENCES FOR CLIMATE RESILIENCE INTERNSHIP PROGRAM (MS4CR-IP) of the African Institute for Mathematical Sciences (AIMS)
- Inequitable access and distribution of budgetary allocations
- Quality and relevance of education and training
- Maintenance and sustainability of infrastructures and equipment



African Continental Climate Outlook forum ACCOF

A Mechanism to provide Continental Climate Outlook Services and improve coordination and harmonization on methods, data, tools, products and services for all Africa









Capacity building user engagement session

User engagement sessions to share knowledge and best practices and establish a strong feedback mechanism Training on innovative interface for climate information production (Africa Drought Monitoring System, Onset monitoring system)

Pre-RCOF training: Downscale the continental tools at

country level







AGRICULTURAL SEASON ONSET MONITORING IN AFRICA







Thank You For Your Attention