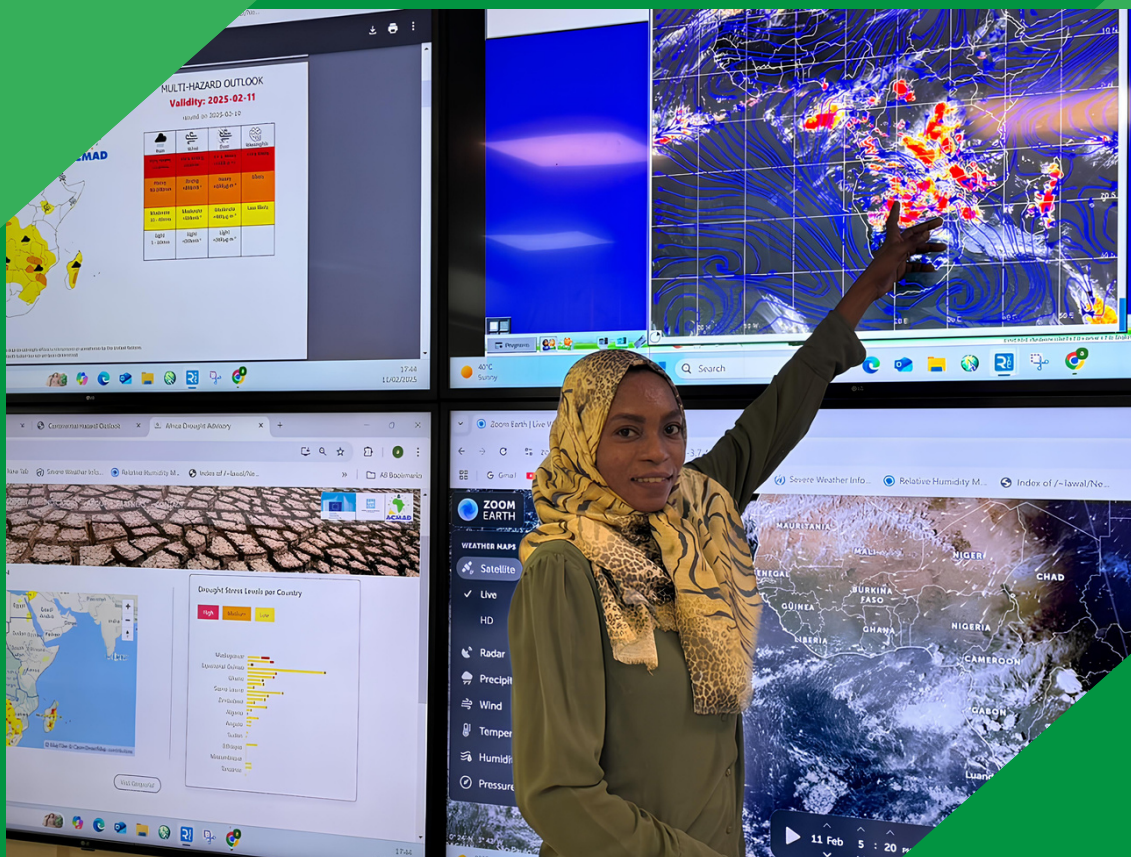




ON-THE-JOB TRAINING & SECONDMENT PROGRAMME

BUILDING A SKILLED AFRICAN METEOROLOGICAL WORKFORCE FOR A CHANGING CLIMATE



contact@acmad.org



+227 20 73 49 92/+227 20 72 36 27



www.acmad.org



Scan to learn more about ACMAD

ABOUT THE PROGRAMME



As part of its mission, ACMAD works to advance innovation and strengthen the application of meteorology and climate services across the continent. To address capacity gaps within member states, ACMAD has developed the On-the-Job Training Programme. This initiative aims to strengthen African meteorological experts in advanced operational methods and tools, while scaling up effective climate services from the regional to the national level.

Over a few months, participating experts are exposed to practical case studies that enable them to build knowledge directly applicable to their home countries. Beyond training, the programme fosters a community of African practitioners who share best practices and collaborate to enhance climate information services across the continent.

OBJECTIVES

The aim of this programme is to strengthen NMHS staff capacity to deliver more accurate climate and weather services for better decision-making by:

- Advancing forecasting, data management, EWS, and AI capacities for operational services;
- Enhancing ACMAD–NMHS collaboration and product co-production;
- Building a continent-wide community of African meteorological practitioners for shared methods and rapid support

TRAINING PHASES

The training consists of three phases :

Phase 1: Apprenticeship

Trainees work alongside experienced ACMAD professionals on live operations. This “learning-by-doing” stage builds mastery of methods and tools for product development (forecasts, advisories, watch/warning bulletins).

Phase 2: Supervised operations

Trainees take on defined operational tasks and shifts, issuing products under the supervision of ACMAD professionals while receiving targeted feedback.

Phase 3: Country case study

Trainees conduct a focused case study aligned with ACMAD’s overall programme and their national priorities, delivering a report with findings, operational outputs, and practical recommendations.

TRAINING MODULES

01

Numerical Weather Prediction

This module will enhance participants skills in understanding the fundamentals of NWP and climate models and their structure; access, generate, visualize, and interpret model output for operational weather prediction and early warning; and evaluate model strengths, limitations, and uncertainties.

02

Climate Change Projections for Risk Assessment

Participants will analyze and process large and high-resolution weather and climate datasets (e.g., CMIP5, CMIP6, CORDEX), generate climate modeling scenarios, perform graphic interpretation, and integrate findings into climate vulnerability and risk assessments and adaptation planning.

03

Climate data rescue and Management Tools & products

Participants will understand and perform data quality control and homogenization, data archiving and analysis, and data management using tools such as CLIMSOFT, while developing skills to produce and deliver climate data services and application products.

04

Climate monitoring and prediction

Participants will access and process global climate data from platforms such as the IRI Data Library and Copernicus Climate Data Store (C3S), use climate monitoring tools to generate and interpret graphics integrated into operational forecasts, apply single and multimodel ensemble prediction techniques to enhance forecast accuracy, and develop seasonal and subseasonal forecasts.

TRAINING MODULES

05

EUMETSAT data and products in weather watch and early warnings

Participants will learn how to use near-real-time satellite, radar, and Numerical Weather Predictions (NWP) model outputs to track the development of storms in near-real time with enhanced accuracy, enabling them to issue more precise and timely warnings on flash floods, cyclones, dust outbreaks and other severe weather events .

07

Downscaling weather forecasting using WRF model

Participants will gain foundational knowledge in Linux-based operating systems and networking to effectively operate meteorological software environments. They will also receive practical guidance in using the WRF model for downscaling global or regional forecasts and generating high-resolution local forecasting maps

06

Impact Based Forecasting

Participants will gain a comprehensive understanding of the concept, importance, and operationalization of Impact-Based Forecasting (IBF). They will learn how to integrate weather, exposure, and vulnerability information to assess potential impacts, communicate forecasts effectively, and develop sector-specific IBF bulletins to support early action and disaster risk reduction.

08

Tools for climate and weather data analysis

Participants will acquire advanced technical skills for the collection, processing, analysis, and interpretation of climate and weather data. The training will focus on the handling of large and high-resolution datasets, the application of statistical and computational methods, and the generation of climate and weather products.

TRAINING MODULES

09

Artificial Intelligence -AI

This training module aims to build the capacity of technical staff in understanding and applying Artificial Intelligence (AI) tools and techniques to enhance weather forecasting, climate monitoring, and data management processes. It introduces participants to foundational AI concepts, their applications in meteorology, and practical approaches to automating climate data workflows.

10

Climate Services for Health

Participants will develop the skills to map, model, and forecast risks associated with infectious and vector-borne diseases using historical climate data, real-time monitoring tools, and operational climate services. The module introduces the scientific and operational linkages between weather, climate variability, and health outcomes, enabling to design and implement climate services for Health.

11

Administration and maintenance of climate softwares & Interfaces

Participants will acquire practical skills in the installation, operation, and maintenance of climate stations and associated data systems. The module also provides training on data processing using the PUMA system, network server configuration, network management, and high-performance computing (HPC) management.

12

Climate Financing and project management

Participants will gain an understanding of the global landscape of climate finance, including major funding institutions, and acquire foundational skills in developing project proposals for climate-related initiatives and identifying funding opportunities.

TRAINING MODULES

13

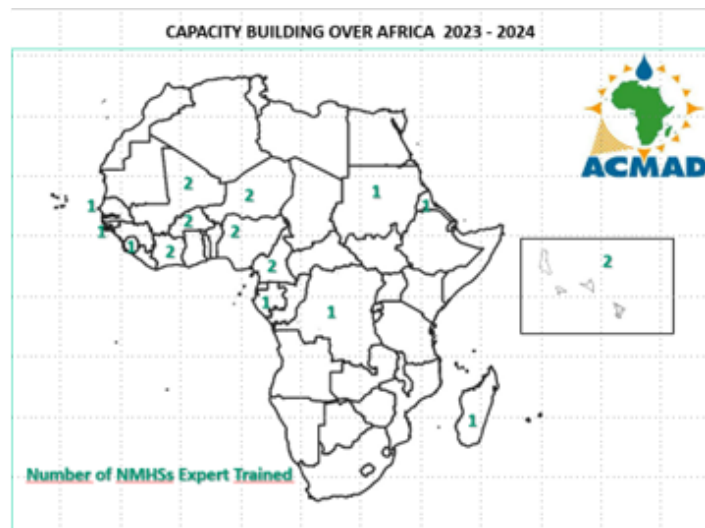
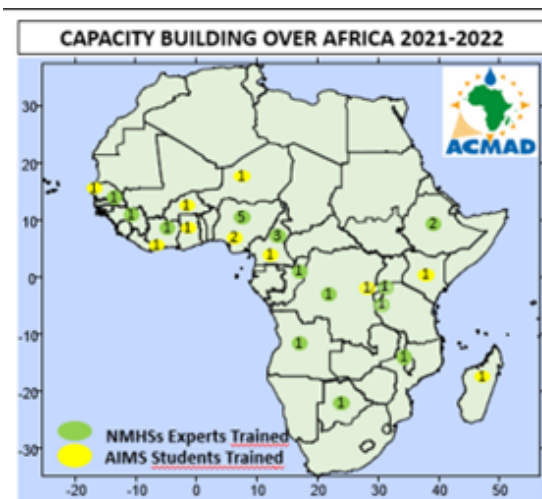
Climate Services Communication

Participants will acquire the skills to translate complex climate and weather information into user-friendly formats, develop effective communication strategies, and use digital tools to engage diverse audiences. The module also builds capacity in social media management, weather presentation on TV, and climate service outreach for enhanced public understanding and decision support.

Weather presentation and Multimedia

The training will equip participants with essential skills to effectively present weather and climate information on screen. It will cover techniques for clear expression and diction, audiovisual and animation methods, and writing for television. The goal is to enhance participants' ability to deliver engaging and professional weather presentations across media platforms.

FROM 2021-2024 48 experts from NMHSs across 19 countries trained in areas such as nowcasting; climate monitoring, and assessment; Synoptic and mesoscale forecasting; Long-range forecasting; Developing vigilance and advisory bulletins.; Onset monitoring and seasonal outlooks.



WHO CAN APPLY

- On-the-Job Training: Junior to mid-career NMHS professionals
- Secondment: mid-career NMHS professionals and Experts involved in WMO programmes



Duration & Location

- On-the-Job Training: 2–6 months
- Secondment: 1–12 months
- Location: ACMAD HQ, Niamey, Niger
- Languages: English & French

Benefits

- ✈ Round trip ticket & allowance
- 💻 Hands-on operational training
- 📄 Certificate upon completion
- 🌐 Join ACMAD's focal point network

HOW TO APPLY



1

Call for Application

A call for applications will be circulated through ACMAD's website, social media platforms, and direct communication to National Meteorological and Hydrological Services (NMHSs).

2

Expression of Interest

Interested candidates must submit their applications through their NMHS, including:

- A nomination letter from the NMHS Director;
- A detailed CV highlighting relevant experience and competencies;
- Copies of diplomas and certificates;
- A motivation letter from the applicant.

3

Submission

All applications must be submitted electronically to ACMAD's official email: secretariat@acmad.org, dgacmad@acmad.org

4

Notification

- Selection will ensure a Regional balance (representation from all African subregions); Gender equity and Alignment with country's thematic priorities.
- Selected candidates will receive a formal acceptance letter and logistical information

TESTIMONIES



Miroirdine Kamardine

NMHS Comoros

"This training has provided me with essential skills in impact-focused seasonal forecasting. The expertise gained at ACMAD will play a crucial role in improving the anticipation and response to future climate challenges, helping to mitigate economic losses and ensure food security in the Union of the Comoros."



Esther Modi

NMHS Cameroon

" 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 "

Partners:

