

# THE ZANYENGO E-NEWSLETTER



*Happy Holidays*



Ministry of Natural Resources,  
Energy and Mining

Department Of Climate Change  
& Meteorological Services

## DECEMBER 2025

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## Edition - IV



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## FROM THE DIRECTOR'S DESK



We are pleased to share with you our latest newsletter, which highlights the dynamic efforts of the Department of Climate Change and Meteorological Services (DCCMS) in fostering collaboration with key stakeholders across diverse sectors.

Over the past few months, our team has made significant strides in amplifying public awareness and ensuring the effective dissemination of critical initiatives, while strengthening community engagement and knowledge-sharing.

A cornerstone of this progress has been our AI-driven projects, which have not only advanced our strategic objectives but also earned international recognition for their innovation and impact.

These achievements underscore the collective dedication of our team and partners to delivering timely, reliable, and inclusive climate information.

As we reflect on a year marked by important milestones and growth, this final edition of 2025 stands as a testament to our shared commitment to excellence.

We are confident you will find it both informative and inspiring.

We wish you all a Joyful Christmas and a prosperous New Year, filled with good health, success, and well-being.



Be Wise!

Be Weather Wise!

## Malawi's AI Weather Forecasting Initiative: A Game-Changer for Global Climate Resilience



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# SOFF Invests \$3.8M to Boost Malawi's Weather Observation and Early Warning Capacity

**DCCMS big boost from SOFF**

By Dr. Lucy Mtilatila



The Systematic Observations Financing Facility (SOFF) has approved USD 3.8 million in new investment for Malawi to address longstanding gaps in weather and climate data.

This support will strengthen the Department of Climate Change and Meteorological Services (DCCMS), with technical assistance from the Norwegian Meteorological Institute and the Icelandic Meteorological Office, to modernize observation systems, build national technical capacity, and improve the flow of critical meteorological data into the global World Meteorological Organization (WMO) network.

Importantly, this new investment will reinforce and sustain the achievements of the Modernised Climate Information and Early Warning Systems (M-CLIMES) Project, a Green Climate Fund initiative implemented in Malawi by UNDP in close partnership with DCCMS.

By maintaining and expanding the systems established under M-CLIMES, the SOFF programme ensures long-term reliability in forecasting, early warning dissemination, and climate resilience nationwide.

The collaboration focuses on three core areas:

## 1. Enhancing Observation Systems

Improving and sustaining Malawi's physical monitoring network—including the modernization and maintenance of Automatic Weather Stations (AWS)—to ensure accurate, high-quality, real-time weather and climate data.



*Brenda M. Soko, busy at work in the NMC*

## 2. Building Technical Capacity

Providing advanced training for Malawian meteorologists and technicians in data management, quality assurance, forecasting tools, and the operation of modern meteorological equipment.

## 3. Securing Data Flows

Ensuring continuous transmission of Malawi's weather and climate data into the Global Basic Observation Network (GBON) of the WMO. Reliable GBON contributions from Malawi not only strengthen national forecasting capacity but also improve global and regional weather models that depend on data from all countries.

The result will be a more climate-resilient Malawi. Communities across the country will benefit from more dependable seasonal forecasts, timely early warnings for hazards such as floods and droughts, and data-driven planning for agriculture, water resources, infrastructure, and disaster risk reduction.

This partnership reinforces a fundamental truth: investing in the foundational systems of weather and climate science saves lives, protects livelihoods, and builds a safer, more prosperous future—both for Malawi and for the world.



## OCTOBER - DECEMBER SUMMARY **Malawi's AI Weather Forecasting Initiative**

By Dr. Lucy Mtilatila



*DCCMS Director Dr. Lucy Mtilatila addressing the audience at COP30.*

In a bold leap forward for climate science and technological equity, the Department of Climate Change and Meteorological Services (DCCMS) has initiated a groundbreaking artificial intelligence (AI)-driven weather forecasting system.

Experts are describing this innovation as a potential “blueprint for the future” of climate resilience in vulnerable regions. This initiative comes at a critical time, as climate change continues to increase the frequency and intensity of extreme weather events. The AI-based system offers

a powerful and low-cost solution that could transform how developing countries prepare for storms, droughts, and floods.

In October 2025, Malawi took center stage at the World Meteorological Organization’s (WMO) Extra-Congress and sustained this momentum at the Conference of Parties (COP30) in Belém, Brazil.

At these high-level international platforms, DCCMS presented the AI weather forecasting model, developed in collaboration with global partners including the Norwegian Meteorological Institute and the European Centre for Medium-Range Weather Forecasts (ECMWF), with financial support from the Climate Risk and Early Warning Systems (CREWS) initiative.

At COP30, DCCMS also shared progress on the AI initiative during several side events organized by the United Nations Framework Convention on Climate Change (UNFCCC), as well as by China, Finland and France.

Malawi’s success is now drawing global attention far beyond its borders. Experts from the United Nations, the World Bank, and the WMO are examining the model as a potential template for other climate-vulnerable regions, including parts of Africa, Southeast Asia, and the Pacific Islands.

As the world watches, Malawi is sending a clear message: technology can close climate information gaps, and no community should be left in the dark.

## **Meteorological Observers Refresher Training Boosts National Climate Data Reliability**

By Hussein Milanzi

The Department of Climate Change and Meteorological Services (DCCMS) conducted a three-day Meteorological Observers Refresher Training from 10–12 November 2025 in Zomba.

The workshop aimed to reinforce operational accuracy, ethical conduct, and adherence to established procedures essential for high-quality meteorological services.

Day 1 focused on core observer responsibilities, including accurate and timely readings, strict data integrity, and regular instrument maintenance. Participants revisited synoptic

observation techniques, analysed administrative and ethical modules, coding errors, and discussed best practices for cloud reporting, temperature checks, and distinguishing fog from haze.

On Day 2, the training centred on climatological returns, highlighting the importance of correct form completion, decimalization rules, inclusion of relative humidity, and proper use of ink. Participants were reminded that incomplete or inaccurate climate returns compromise national datasets and affect decision-making.

The final day addressed critical

such as data confidentiality under the Data Protection Act (2024), formal reporting channels, and professional conduct guided by the Malawi Public Service Regulations. Participants also received an introduction to the redesigned Individual Performance Management System (IPMS), including key terminology (KRAs, KPOs, KPIs) and scoring approaches.





## NORCAP Strengthens Collaboration with DCCMS for Enhanced Climate Services

By Mikaila Issa

A delegation from NORCAP Head Office visited DCCMS headquarters from 25 to 26 November 2025, marking an important and timely engagement as both institutions prepare their strategic directions toward 2030.

The visit offered an opportunity to review progress, exchange insights, and identify new areas of collaboration to strengthen climate and weather services across Malawi.

During discussions, DCCMS Director, Dr. Lucy Mtilatila, highlighted the Department's increasing visibility at national, regional, and international levels.

She noted that NORCAP's technical support has contributed meaningfully to this momentum. She further shared that during recent engagements with the World Meteorological Organization (WMO) and at global climate forums, DCCMS's work was frequently referenced as an example of strengthened institutional capacity and innovation.

NORCAP's current support to DCCMS includes the deployment of three experts focusing on user engagement, mobile application development, AI modelling, and weather forecast development.

Dr. Mtilatila also emphasized the added value of the Norad-funded Agricultural Resilience through Climate Services (ARCS) Consortium Project, which is helping bridge the gap between national climate information providers and smallholder farmers.



*DCCMS leadership and NORCAP delegation*



*The NORCAP delegation meets with DCCMS Director Dr. Lucy Mtilatila to discuss ongoing collaboration and strategic priorities*

Representing NORCAP, for their professionalism and dedication.

Hilde Jørgensen, Head of the Climate Resilience Unit, commended DCCMS for its continued commitment to the partnership and reaffirmed NORCAP's dedication to supporting institutional capacity strengthening for climate resilience.

Helene Henriksen, Programme Adviser and NORCAP focal point for ARCS, expressed appreciation for the central role DCCMS plays in advancing the Consortium's objectives.

During the two-day visit, the delegation met with technical teams across the Department to better understand operational processes and ongoing innovations.

The delegation also visited the Weather TV Studio, where they observed a live test production of a weather bulletin for national broadcast and commended staff

As the partnership advances, Dr. Mtilatila reiterated DCCMS's ambition to continue improving the quality, accessibility, and delivery of climate and weather information.

Potential areas for expanded collaboration include donor scoping to mobilize additional resources for enhanced co-production of climate services.

Further strategic priorities emphasise reinforcing Anticipatory Action (AA) and advancing Impact-Based Forecasting to ensure more accurate, timely, and locally relevant early warning systems at district and sectoral levels.

## PUMA 2025 Training Empowers Meteorologists

By Esau Gadenala

A landmark training workshop has advanced meteorological capacity across Africa, held from 6–10 October 2025 at the Institute for Meteorological Training and Research (IMTR) in Nairobi.

The intensive session equipped forecasters with the knowledge and skills to operate the PUMA 2025 data reception stations and fully leverage the cutting-edge capabilities of the Meteosat Third Generation (MTG) satellites.

Funded through the Climate Services and Related Applications (ClimSA) programme and supported by the African Union, European Union, EUMETSAT, and TECNAVIA, the workshop represents a major step toward modernizing weather and climate-monitoring systems across the continent.

A major focus of the training was the transition from the legacy PUMA 2015 system to the new web-based PUMA 2025 (Skyceiver) platform.

Facilitator Sarah Kimani guided participants through its enhanced features, including remote accessibility, improved data recovery, seamless integration with ClimSA systems, and personalized user accounts with pre-configured products.

Participants engaged deeply with next-generation MTG products and tools, including:

- **MTG Data:** 1 km high-resolution imagery, 10-minute rapid scans, 16 spectral channels, and the innovative Lightning Imager (LI) for real-time thunderstorm tracking.
- **Advanced RGB Composites:** Cloud Type, True Colour, Fire Temperature, and other RGBs used to detect fog, dust, fires, and detailed cloud characteristics.
- **Integrated Data Analysis:** Combining MTG imagery with NWP models (ECMWF), observational datasets (METAR/SYNOP),



*Certificate presentation to Esau Yohane Gadenala upon successful completion of the PUMA 2025 and MTG operational training at IMTR Nairobi*

and specialized tools such as TAMSAT rainfall and dust forecasts—all within the PUMA 2025 interface.

A capstone lab on 9 October tasked teams with analyzing high-impact weather events—fog, convection, dust, and fire—using the full suite of PUMA 2025 tools.

Each team produced a 5-hour forecast, mirroring real operational decision-making.

By empowering forecasters to fully exploit MTG's unprecedented data and PUMA 2025's agile platform, the workshop strengthens Africa's ability to deliver timely early warnings, protect lives and property, and support weather-sensitive sectors.

For more information on the PUMA network, MTG data, or ClimSA, please contact your national meteorological service or visit the EUMETSAT website.





By Stanford Kachibade &  
Charity Mapondo

## How Participatory Scenario Planning Empowers Phalombe Communities Against Climate Shocks

Guided by the vision of a “Responsive nation to weather and climate change impacts,” the Department of Climate Change and Meteorological Services (DCCMS) continues to strengthen community engagement across Malawi through Participatory Scenario Planning (PSP).

This collaborative platform is crucial. It brings together farmers, traditional leaders, and climate experts to translate scientific weather forecasts—often perceived as too complex or abstract—into concrete, actionable guidance that communities can use to prepare for the rainy season.

In November 2025, this essential preparedness initiative was rolled out to Village Development Committees (VDCs) from 10 Group Village Headmen (GVHs) in TA Nkhulambe, Phalombe District.

The participating GVHs included Wowo, Nanyalo, Degadega, Likhura, Guziwa, Mapondo, Mlera, Nkhulambe,



*Community groups in Phalombe work together to identify risks and develop preparedness strategies*

Gwirima, and Manyamba.

The session was facilitated by the DCCMS, with support from the Malawi Red Cross Society. During the PSP meetings, participants shared and analyzed their indigenous knowledge systems, discussing traditional signs used to anticipate rainfall patterns.

DCCMS experts then enriched these discussions by presenting the scientific seasonal forecast for the 2025–2026 rainy season. By confronting indigenous observations with scientific projections, participants reached a clear consensus:

Phalombe is expected to receive normal to above-normal rainfall,

with probable episodes of heavy rainfall in December 2025 and January 2026.

A potential week-long dry spell in February 2026 was also identified as a scenario requiring specific preparedness.

Building on this consensus, the communities immediately proceeded to elaborate their action plans. They identified risks, prepared mitigation measures, and strengthened their readiness against weather-related hazards.

PSP thus allows these communities to be better equipped to reduce the potential risk of loss of property, crops, and lives, while proactively strengthening their overall resilience to climate shocks.





## Lessons from Cyclone Freddy in Phalombe District: Strengthening Disaster Risk Clustering and Management

By Robert Namakhwa



2023 Cyclone Freddy

**P**halombe District, lying at the foot of Mulanje Mountain and along the Likhubula River Basin, faces persistent climate hazards driven by shifting rainfall patterns and rising temperatures.

Rainfall has become more erratic—shorter seasons with intense downpours often linked to tropical systems.

The district has a long history of landslides and riverine floods, while drought and prolonged dry spells continue to affect livelihoods. Major events such as the 1991 landslides and the floods of 2015, 2022, and 2023 highlight this exposure.

Evidence from the Intergovernmental Panel on Climate Change (IPCC) and DCCMS confirms rising temperatures, shorter rainy seasons, and more frequent extreme weather events.

Cyclone Freddy (2023), which delivered over 1,000 mm of rainfall in four days, triggered devastating floods and mudslides.

The event underscored that extreme climate shocks are becoming more frequent, exceeding traditional coping

capacities.

Despite this, disaster management in Phalombe remains largely reactive. Limited integration of climate data, hazard clustering, and spatial risk mapping results in fragmented interventions. Rainfall now falls in shorter but more intense episodes, accelerating flash floods and erosion, while multi-year dry spells weaken agricultural productivity.

Hazard clustering reveals distinct risk zones: flood-prone riverine communities, landslide-prone escarpments, and drought affected eastern lowlands. Weak land-use enforcement, unregulated settlement in high-risk areas, and inadequate early-warning dissemination intensified Freddy's impacts. Communication gaps prevented warnings from reaching remote communities in time.

Phalombe must now shift toward predictive, multi-hazard disaster

risk management. This includes enforcing zoning guided by hazard maps, supporting safe relocation, integrating hazard analysis into District Development Plans, and strengthening collaboration among Department of Disaster Management Affairs (DoDMA), district councils, NGOs, and community structures.

Building technical capacity for climate data interpretation and enhancing early-warning systems are also essential.

Cyclone Freddy shows that extreme events are no longer anomalies.

A proactive, data-driven approach—anchored in hazard clustering, effective communication, and climate-smart land-use planning—can help Phalombe reduce vulnerability and build long-term resilience.



2023 Cyclone Freddy

# When Weather Meets Media, Bridging Malawi's Climate Information Gap

By Jones Patel

As Malawi prepares for the 2025/26 rainfall season, the need for clear and accessible weather information is critical.

Farmers depend on timely forecasts to plan planting, irrigation, and risk-reduction activities. Yet despite advances in forecasting, a communication gap persists.

Scientific updates are often delivered in technical language or through digital channels that rural communities may struggle to access.

In this landscape, traditional media—especially radio—remains the most trusted and widely used source of climate information, placing journalists and broadcasters at the centre of national resilience efforts.

To strengthen this vital link, the Department of Climate Change and Meteorological Services (DCCMS), in partnership with the Climate Risk and Early Warning Systems (CREWS) initiative, recently convened a four-day training for journalists and presenters.

The workshop aimed to build media capacity in interpreting meteorological

data and translating it into simple, actionable messages that farmers can rely on.

Participants explored techniques for breaking down complex concepts and delivering them effectively through radio, television, newspapers, and social media platforms such as Facebook. A major highlight was the introduction of the Season Media Action Plan, a structured tool that guides journalists in planning weather-related content throughout the season.

It emphasizes timing, audience needs, storytelling techniques, and the importance of consistent messaging. As User Engagement Expert Collison Lore noted, journalists play a pivotal role in building public trust by connecting scientific forecasts with real community experiences.

The training was highly practical. Journalists developed sample radio segments, practiced engaging experts during live interviews, and explored how to simplify seasonal forecasts for farming audiences.

They were also encouraged to incorporate local knowledge from farmers, promoting a two-way communication model that blends scientific insight with community experience.

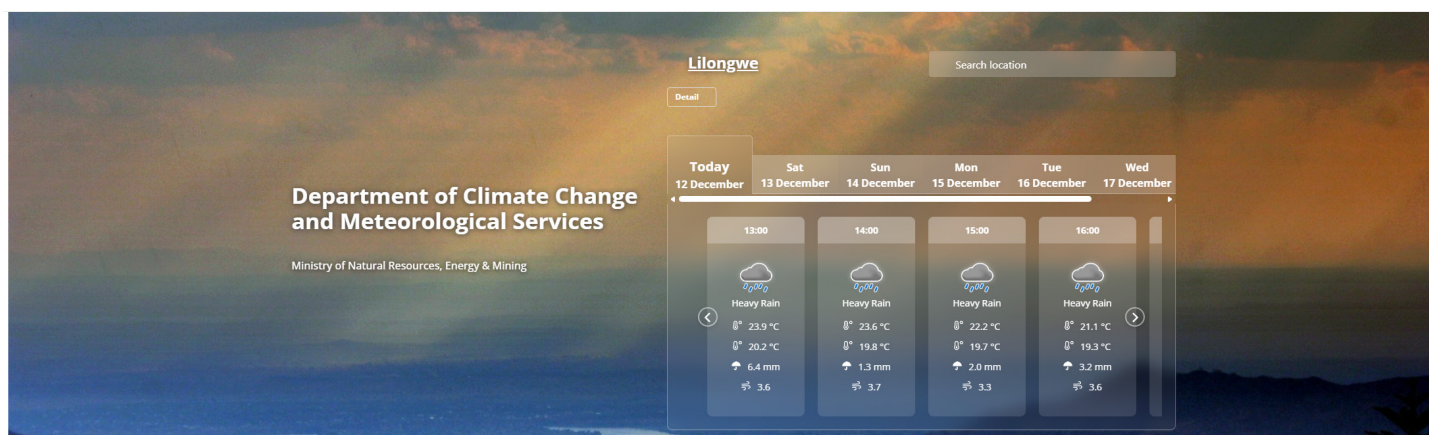


*Journalists who took part in the DCCMS Media Training*



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DCCMS website homepage providing timely and accurate climate information. Visit: <https://www.metmalawi.gov.mw/>



# CAPACITY BUILDING



## Empowering Community Leaders to Disseminate Early Warning Messages in Local Languages

By Edwin Tadeyo



*One of the participants demonstrating how they would relay DCCMS warning to their communities.*

Community leaders play a critical role in strengthening early warning systems in disaster-prone regions, where timely information can mean the difference between safety and loss.

Equipping these leaders to communicate early warning messages in local languages is essential for bridging the gap between technical forecasts and community action.

This approach improves the accessibility, relevance, and effectiveness of early warning systems, especially among vulnerable populations.

Recent work under the Resilience and Preparedness to Tropical Cyclones across Southern Africa and Madagascar (REPRESA) Project in Chikwawa and Nsanje demonstrates the transformative power of using the Sena language to communicate weather and early warning information.

In October 2025, the Department of Climate Change and Meteorological Services (DCCMS), supported by REPRESA, trained Disaster Risk Management Committees (DRMCs) in TA Ngowe (Chikwawa) and TA Tengani (Nsanje).

The training focused on key components of early warning systems and interpretation of forecast information. Participants were tasked with

demonstrating how they would relay DCCMS warnings to their communities using Sena, while incorporating cultural norms and traditional communication styles.

The exercise clearly showed that complex meteorological terminology can be simplified without losing technical accuracy when communicated by trusted local leaders.

Messages that may seem abstract or confusing when delivered by district or national officials became clearer and more actionable in Sena—ensuring that women, the elderly, and people with limited literacy are not excluded.

Local leaders—including village chiefs, traditional authorities, faith leaders, and DRMC members—are highly respected sources of information. When they deliver warnings in the language spoken daily, the information becomes relatable and credible, increasing the likelihood of timely community response. Their deep understanding of local customs and livelihoods enables them to contextualize messages in ways that resonate.

However, translating meteorological terms requires precision to avoid misunderstandings. Recognizing this, North-West University, the Sustainable Development Initiative, DCCMS, and REPRESA partners have begun documenting weather, climate, and early warning terminology in Sena. Further stakeholder validation will refine this work, contributing to clearer and more consistent communication.

Strengthened with accurate terminology and enhanced skills, community leaders will be better positioned to disseminate warnings through community meetings, local radio, door-to-door messaging, and traditional networks.

Ultimately, empowering these leaders builds trust between DCCMS and the communities they serve, fosters two-way communication, and enhances the overall effectiveness of early warning systems.



## Advancing Climate Services Uptake: New User Engagement Expert Joins DCCMS

By Charity Maondo

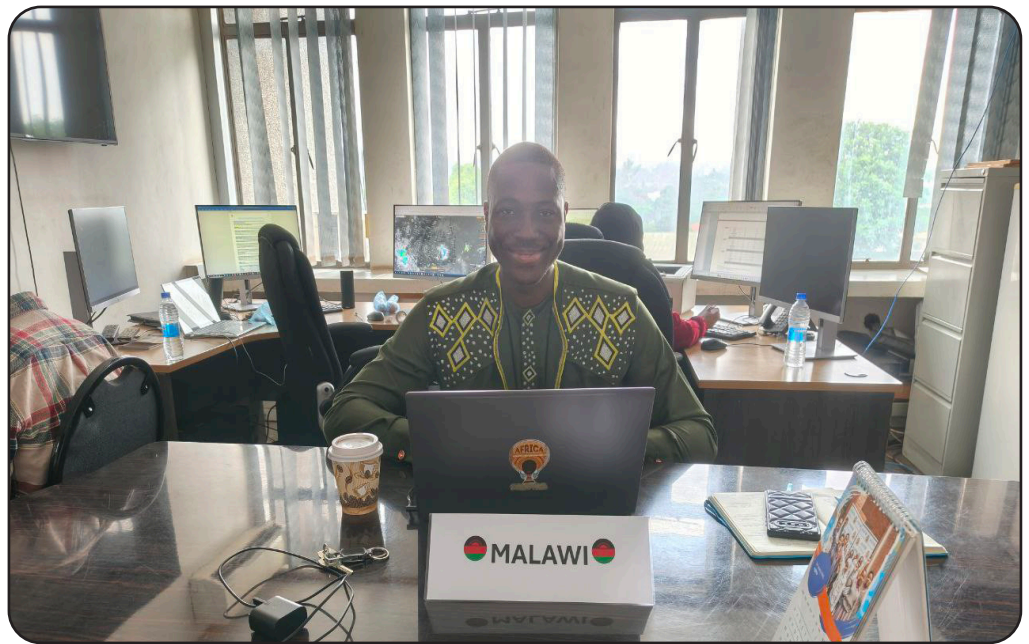
The Department is pleased to welcome Mikaila Issa as the new User Engagement Expert, deployed through our Norwegian partner, NORCAP.

Mikaila officially reported for duty on 6 November and has already engaged with DCCMS teams and key stakeholders. He brings valuable international experience that will support ongoing efforts to strengthen the Department's engagement approach and enhance the effectiveness of climate services delivery.

During his introductory briefing, Mikaila met with Mr. Amos Mtonya, Deputy Director for Meteorological Engineering and Communications, who provided an overview of DCCMS's mandate, operational priorities, and current initiatives aimed at enhancing Malawi's weather and climate services.

Mr. Mtonya reiterated the critical importance of user engagement and effective communication—particularly as the demand for timely and actionable climate information continues to grow among the public and resilience partners.

Mikaila also visited the National Meteorological Centre, where he observed the processes involved in producing daily, weekly, and



*Mikaila during onboarding session at National Meteorological centre, observed the daily forecasting workflow and operational environment*

monthly forecasts.

He expressed appreciation for the professionalism and dedication of the forecasting teams and highlighted his commitment to supporting DCCMS's mission of providing reliable climate information for all users across Malawi.

Mikaila joins DCCMS with strong experience in user engagement, climate information dissemination, and resilience-building initiatives with smallholder communities.

His previous work across Kenya, Nigeria, Senegal, and Niger includes supporting climate-information delivery through radio, ICT4Ag platforms, and participatory assessments.

He also brings extensive expertise in communication strategy, media engagement, advocacy, and collaboration with international organisations such as the African Union, African Development Bank, CGIAR, IITA, FAO, and IFAD.

Mikaila now assumes responsibilities previously carried out by Collison Lore.

DCCMS extends its sincere appreciation to Collison for his unwavering dedication and the significant contributions he has made over the past two years in advancing user engagement and strengthening climate services delivery nationwide.



*Newly deployed User Engagement Expert, - Mikaila Issa*



## PICTORIAL



*At COP 30 in Brazil, DCCMS Director shared lessons on Blantyre-Mulanje Water Fund innovative collaboration.*



*Speaking at Extra-Ordinary WMO Congress in Geneva, Dr. Lucy Mtilatila underscored Malawi's efforts in building early warning systems.*



*A constructive dialogue between DCCMS Director and NORCAP representatives focused on strengthening climate services and expanding partnership frameworks.*



*Officials from NORCAP inside Weather and Climate Service room*

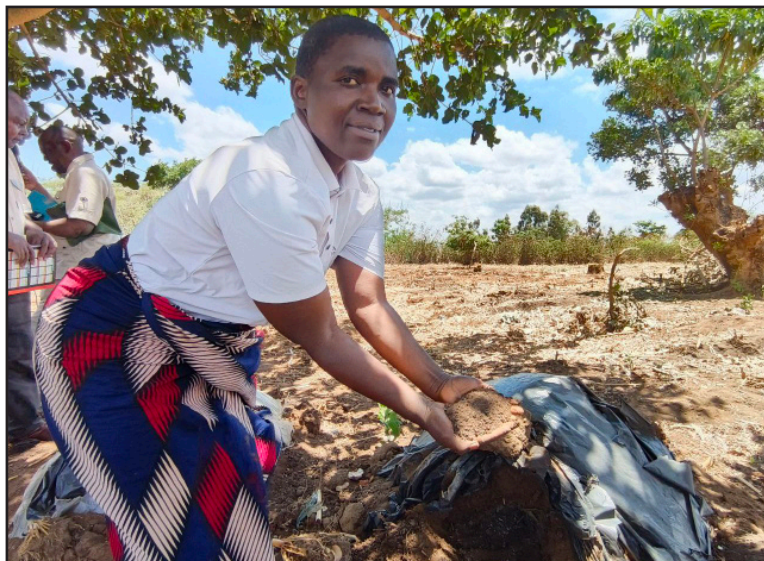


*NORCAP delegation observes a demonstration of weather bulletin production for national television.*



*NORCAP representatives tour the DCCMS Weather TV Studio, where staff demonstrated key steps in preparing televised weather bulletins.*





*A farmer in Ntchisi displays Mbeya manure, a climate-smart soil fertility innovation reinforced through training under the ARCS Consortium Project.*



*A gender-sensitive user engagement approach is essential to ensuring inclusive access to Climate Services for all farmers.*



*Farmers, DCCMS staff, and ARCS partners engage in Rumphi during field preparations, illustrating how climate information services shape planting decisions.*



*Quality Management System (QMS) awareness training delivered to DCCMS Malawi.*



## Strengthening Farmer Resilience



*Women farmers in Machinga prepare crop residues for mulching, an essential soil-moisture conservation practice increasingly guided by DCCMS climate advisories.*

Farmers are combining CIS with climate-smart techniques promoted through ARCS, including improved soil fertility practices, moisture-retention methods, and diversified cropping systems.

Trust in seasonal forecasts continues to grow, influencing how households plan their land preparation, crop choices, and planting timelines.

In Rumphi, Lead Farmer Elina Ngwira explained how CIS informs her decisions:

“When they advise us not to plant yet, I wait.”

This climate-informed timing helps reduce losses during early-season dry spells. Echoing this guidance, Donald Chimata, DCCMS District Meteorologist, advises farmers:

“Do not buy seed before the seasonal forecast is released.”

Reaching all farmers requires a reinforced CIS communication chain. Information flows through EPA offices, radio updates, and mobile phone alerts.

Monthly community meetings also play a key role, ensuring farmers without digital devices still receive timely climate advisories.



## The Growing Role of DCCMS Climate Services

By Mikaila Issa

As the 2025/26 agricultural season unfolds, a recent field engagement conducted under the Agricultural Resilience through Climate Services (ARCS) Consortium Project has provided valuable insights.

The visits to Machinga, Rumphi, Ntchisi, and Mzimba highlighted how communities are preparing their fields and adapting to evolving climate conditions.

Across all districts, interactions with smallholder farmers, DCCMS district meteorologists, agricultural extension workers, field officers, and community journalists revealed a consistent trend:

**Climate Information Services (CIS) issued by DCCMS are increasingly guiding critical farming decisions.**

ARCS implementing partners continue to work closely with DCCMS district teams to reinforce this dissemination pathway, ensuring advisories are timely, actionable, and accessible.

Insights gathered from the field will directly inform efforts to scale up localized CIS packages, reinforcing DCCMS's mission to support climate-informed decision-making and enhance agricultural resilience across Malawi.

## DCCMS Leverages Social Media to Inform and Warn Malawians on Weather and Climate Hazards

By Alick Chibanthowa

In an era where digital communication has become central to daily life, the Department of Climate Change and Meteorological Services (DCCMS) is increasingly using social media to deliver timely, accurate, and life-saving weather information to Malawians across the country.

By presenting information in simpler language, accompanied by infographics, maps, videos, and local translations, the Department ensures that complex meteorological information is easily understood by all.

During recent extreme weather events, such as intense rainfall and strong wind episodes, social media proved to be a vital tool for early warning dissemination, enabling communities to take precautionary action in good time.

Engagement levels on DCCMS platforms continue to rise, reflecting growing public trust in officially verified weather information.

Through platforms such as Facebook, X, WhatsApp Channels, Zanyengo App and YouTube, DCCMS now shares daily weather forecasts, impact-based warnings, seasonal outlooks, and climate updates in real time.

This approach has significantly improved public access to weather

information, especially during severe weather events such as floods, heatwaves, strong winds, and tropical systems.

Social media enables DCCMS to reach diverse audiences quickly, including farmers, fishermen, disaster risk managers, the media, students, and the general public.

Beyond warnings and forecasts, DCCMS also uses social media for public awareness and education, sharing tips on climate change, disaster preparedness, seasonal farming advice, and explanations of weather phenomena.

This supports national efforts toward building a weather-ready and climate-resilient Malawi.

As the impacts of climate change intensify, DCCMS remains committed to strengthening its digital communication systems.

Leveraging social media is not only improving forecast outreach but also helping to save lives, protect livelihoods, and enhance national preparedness against weather and climate-related risks.



## Mzuzu Takes a Big Step Toward a Safer Future

By Fatsanawo Dzingomvera

Malawi's efforts to enhance early warning systems achieved a key milestone on 8 December 2025, as the Department of Climate Change and Meteorological Services (DCCMS) and the Malawi University of Science and Technology (MUST) partnered with key institutions in Mzuzu to test and refine the upgraded Chenjezo 24/7 mobile early warning application.

The session engaged city disaster

committees and community weather chasers, ensuring the platform responds to real user needs.

Held at the Anglican Hall in Mzuzu City, the meeting brought together representatives from United Nations Development Programme (UNDP), Mzuzu City Council, Department

of Disaster Management Affairs (DoDMA), MUST, and local disaster stakeholders.

UNDP, represented by Ted Nyekanyeka, reaffirmed its commitment to supporting the app's development and rollout. Mzuzu City Council, through Director of Planning Obvious Nyirenda, and DCCMS officials Fatsanawo



# Enhancing Resilient Farming Through Climate-Smart Agriculture

By Robert Namakhwa



*Farmers in Mzimba preparing their land guided by DCCMS climate advisories.*

Malawi's rich natural landscapes—from Lake Malawi to the Rift Valley highlands—are increasingly threatened by intensifying climate risks.

Floods, droughts, heatwaves, and prolonged dry spells now frequently disrupt livelihoods and food security. Agriculture, which supports over 85% of Malawians, remains the most vulnerable sector. While floods occur more often, droughts and dry spells cause deeper losses.

Building resilience requires a mindset shift among smallholder farmers—from reliance on rain-fed monocropping to adopting Climate-Smart Agriculture (CSA) practices that stabilize yields and protect incomes.

Rainfall patterns show strong spatial variability, with high-

rainfall zones like Nkhotakota and Mimosa contrasting with drought-prone districts such as Balaka, Chikwawa, Nsanje, and parts of Kasungu and Mchinji.

National disaster records confirm rising climate extremes: major droughts (2002, 2011, 2015, 2024) and severe floods (2014, 2019, 2022).

These trends call for tailored CSA interventions, including drought-tolerant crops, rainwater harvesting, erosion control, and small-scale irrigation.

Heavy reliance on maize remains a major constraint. With dry spells becoming hotter and longer, maize monocropping is increasingly risky.

Diversifying through intercropping—such as maize with groundnuts or sorghum with

cowpeas—spreads risk, enriches soils, and boosts the likelihood of harvests even in difficult seasons. Practical CSA techniques bolster resilience further.

Rainwater harvesting supports crops during mid-season dry spells. Mulching conserves soil moisture and reduces temperatures. Contour farming minimizes erosion and retains water.

These low-cost practices deliver immediate and long-term benefits.

To support farmers, DCCMS, the Ministry of Agriculture, and partners are promoting legume-based farming. Legumes improve soil nitrogen, reduce fertilizer costs, and support diversified diets.

A key milestone was the Validation of the Malawi National Climate-Smart Legume Production Guide and Training of Trainers (24–28 November 2025), led by CCARDESA under the AICCRA project.

The exercise brought together agricultural experts, meteorologists, researchers, NGOs, seed companies, and farmer groups.

The workshop validated the guide, trained extension agents, and prepared district dissemination plans. Ultimately, CSA success depends on farmer adoption.

By embracing diversification, soil and water conservation, and climate-informed decisions, Malawi can build a resilient, sustainable agricultural future.



# The Great Drying: How Malawi's Rains Are Disappearing When Crops Need Them Most — A 34-Year Analysis of Early-Season Failures

By Noel Banda

In the fields across Malawi, farmers gaze at October blue skies with a mix of hope and hesitation.

The first pre-seasonal rains, known locally as Chizimalupsya, still arrive from mid- to late October, gently wetting the soil and signaling that the farming season is approaching.

These rains do not mark the start of planting, but they traditionally awaken communities, reminding them to finalize land preparation and gather inputs.

Today, however, Chizimalupsya is followed by an unsettling pause.

Malawi's agricultural heartbeat is changing. The true planting rains, which once established themselves reliably in early November, now arrive late, build weakly, or disappear after only a brief burst.

The dependable rhythm that farmers have trusted for generations is slipping away, replaced by uncertainty at the most critical moment of the agricultural calendar.

This shift is no longer just a feeling in the fields. A comprehensive 34-year analysis confirms that Malawi's early-season rains are undergoing a profound decline.

A 34-year analysis reveals a weakening foundation. Our analysis of October–November–December (OND) rainfall from 1991 to 2024 shows a striking departure from the historical norm. Using the 1991–2020 climatology as a baseline, we assessed 5-year anomalies to track changes over time.

The findings leave little doubt. The historical OND average of 265.5 mm no longer reflects what farmers face today. Between 2020 and 2024, rainfall dropped by 34.5% in Central Malawi and 29.4% in Northern Malawi.

Analysis shows that early-season rainfall has declined across nearly half of Malawi's monitored areas, signaling a widespread shift in the onset of the rainy season. (as shown in Fig. 1). For a farmer, this means fields that were once reliably watered are now left thirsty; seeds planted in hope may fail to germinate, and the labor of months can be undone in days.

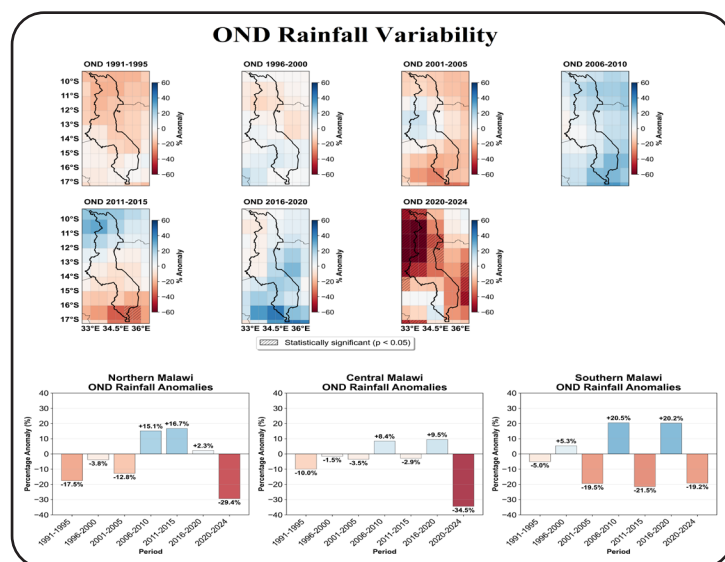


Fig. 1: Malawi's early-season rainfall has declined sharply, with red areas showing dry regions and blue areas wetter-than-average conditions.

## A Climate Rhythm Breaking Down

This drying is not a series of isolated bad years. It represents a long-term pattern: OND droughts have become more frequent and increasingly severe since the 2000s.

In 2001, farmers faced a historic drought that tested resilience across the country, leaving many households scrambling to protect their food supplies. By 2021, the drought had intensified, spreading over wider areas and deepening the strain on communities.

Even in 2024, a moderate but nationwide drying episode served as a stark reminder that no region is immune. Each season builds on the last, eroding household reserves, fraying community coping mechanisms, and fracturing the once-reliable rhythm

<< Page 17 that guided planting and harvesting (as shown in Fig. 2).

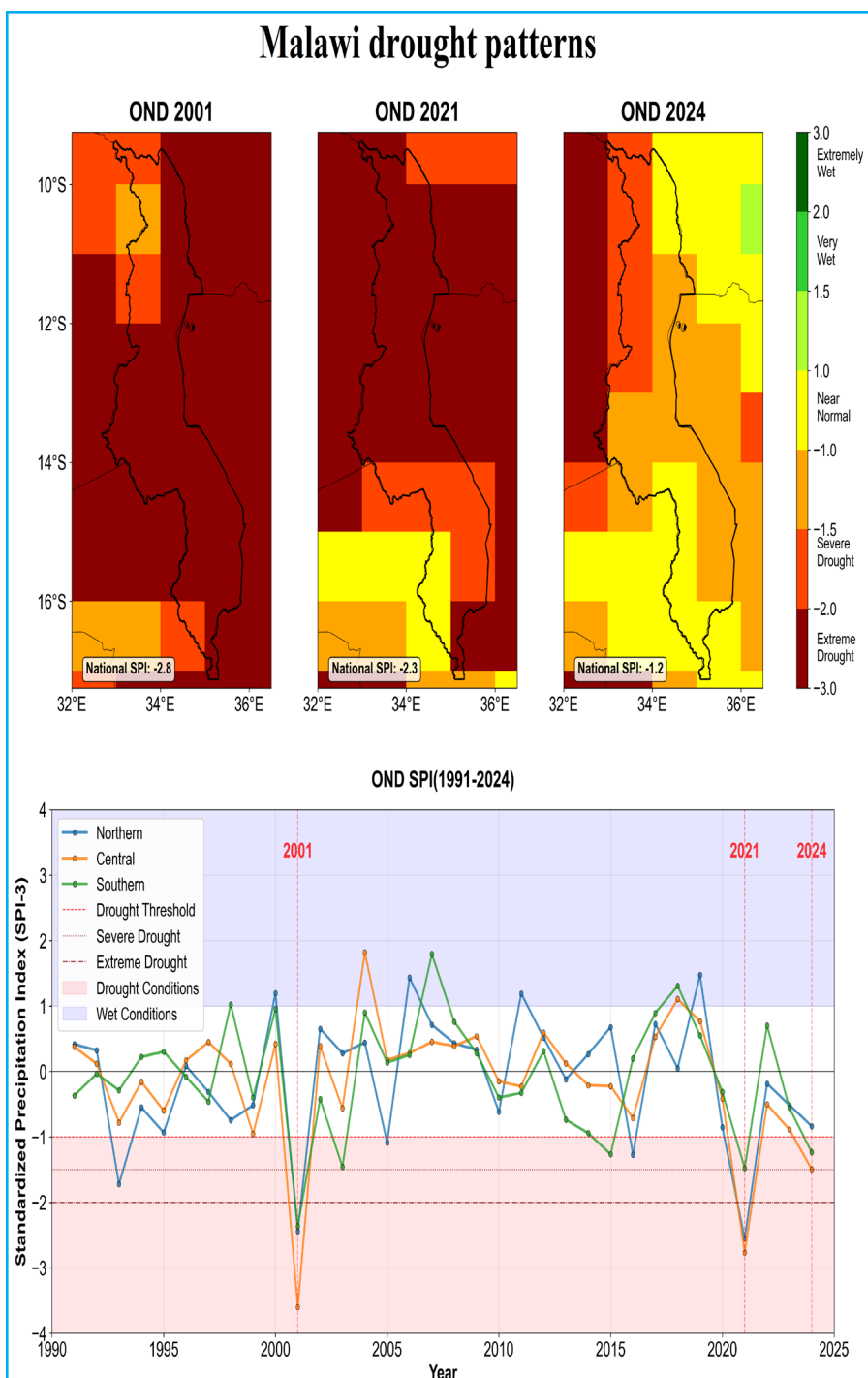


Fig. 2: SPI trends show how drought severity and frequency have changed in 2001, 2021, and 2024, revealing shifting rainfall patterns over time.

### When the Rains Fail, Farmers Pay the Price

The consequences are immediate and tangible. Seeds often lie dormant in dry soil. Families ration food earlier than expected. Money spent on seed, fertilizer, and labor can vanish like the rains themselves. Farmers face impossible decisions:

plant early and risk total crop failure, or wait for the delayed main rains and accept lower yields. Each choice carries the weight of livelihoods and survival.

### A Roadmap for Action

Within this troubling reality, there is hope—but it requires action tailored to the land and its people. Central Malawi, now the hotspot of early-season rainfall decline, needs urgent support.

Farmers are turning to drought-tolerant, early-maturing seeds, hoping their crops will survive shorter rainy periods.

Water-harvesting techniques and soil-moisture conservation are becoming lifelines, catching every drop of rain. Hyper-local weather forecasts guide planting, giving farmers a fighting chance to act before dry spells strike.

And early warning systems, tailored to smallholder needs, help communities prepare rather than react.

### A Call to Protect Malawi's Food Security

The 34-year data send a clear message: the Great Drying is here. Early-season rains, once a dependable foundation for agriculture, have weakened.

But this knowledge is power. With smart, data-driven adaptation, farmers can safeguard their crops, communities can protect food security, and Malawi can build resilience against a changing climate.

**“The rhythm of the seasons may be shifting, but Malawi’s food security does not have to be its victim.”**



[<< page 15](#)

Dzingomvera and Esau Gadenala, emphasized the importance of integrating technological innovation with city-level disaster preparedness systems.

DoDMA highlighted its role in linking early warnings with coordinated response mechanisms at community and council levels.

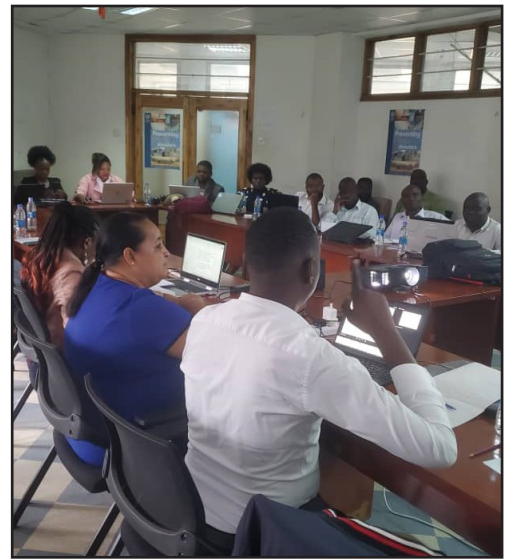
A hands-on technical demonstration led by Dr. Steve

Gondwe and the MUST development team enabled participants to test the upgraded application and provide targeted feedback for further refinement.

The activity strengthened collaboration between DCCMS and academic institutions in support of the Early Warning for All (EW4All) initiative championed by WMO, as well as Malawi's National Framework for Climate Services.

## DCCMS Staff Trained in International QMS Standards

By Hussein Milanzi



*Participants follow a presentation during a technical session led by trainers from the Seychelles Meteorological Agency*

The Department of Climate Change and Meteorological Services (DCCMS) made a major step toward full compliance with international aviation safety requirements.

This progress was achieved through an intensive ISO 9001:2015 Quality Management System (QMS) awareness training held from 17–28 November 2025 at its headquarters in Blantyre.

Facilitated by experts from the Seychelles Meteorological Agency (SMA), the training equipped 15 DCCMS staff with foundational knowledge of QMS principles and practical skills needed to meet ICAO and WMO regulatory standards for aviation meteorology.

Key topics included the Process Approach, the Plan-Do-Check-Act (PDCA) cycle, and Risk-Based Thinking. Participants engaged in hands-on activities such as process mapping, management review preparation, and mock internal audits, with coaching from SMA specialists.

Additional sessions focused on non-conformity handling, staff engagement, documentation review, and strategies for continual improvement.

Major outputs from the mission included updated QMS documentation, a comprehensive Gap Analysis Report with actionable recommendations, strengthened staff capacity, and a draft roadmap toward ISO 9001:2015 certification.

Next steps for DCCMS include implementing the revised documents, regularizing internal audits, and conducting scheduled management review meetings.

SMA will continue providing remote mentorship, with a joint progress review mission planned for mid-2026 to assess certification readiness.

This initiative marks an important milestone toward enhancing the reliability, accuracy, and safety of meteorological services delivered to national and international aviation users.



# The Rain That Went Missing:

## A Climate Change Story for Malawi's Children



### CHILDREN & YOUTH CORNER

By Collison Lore

Long ago, in the friendly village of Ching'amba, the children loved to play under the big mgosa tree. Every year, the rains came right on time.

The fields turned green, the rivers flowed happily, and everyone knew when to plant their maize. But one year, something strange happened.

Lena, a curious 10-year-old, woke up one morning and rushed outside. She looked at the sky and frowned. "Mama, the rains were supposed to start this week... but the clouds are still hiding!"

Her mother nodded slowly. "Yes, Lena. The climate is changing. The weather is not behaving the way it used to." Lena didn't like the sound of that. She ran to tell her best friend, Tonde.

"The rain has gone missing!" she said. Tonde shook his head.

"Let's go to the river and see what's happening." When they arrived, the river

was lower than usual. Fish struggled in the shallow pools. Frogs sat quietly on the muddy banks, waiting for water that did not come.

"We must find the rain," Lena said boldly. So the two children set off on an adventure.

They climbed the small hill behind the village where Old Gogo Mwale, the weather storyteller of Ching'amba, sat watching the sky. "Gogo," Lena



asked, “why is the rain missing?” Gogo Mwale sighed gently. “My children, people all over the world have been cutting too many trees, burning too much fuel, and polluting the air”.

The earth is getting hotter. This makes the rains come late, too heavy, or sometimes not at all.” Lena and Tonde sat silently. Then Tonde asked, “But what can we do? We are just children.” Gogo Mwale smiled.

**“Even children can be climate heroes.”**

He opened a small basket and took out three young tree seedlings. “Planting trees helps cool the earth. Saving water keeps our rivers alive. Keeping our surroundings clean stops pollution. And most of all—listening to weather forecasts helps families stay safe during storms, floods, and heat.” Lena and Tonde took the seedlings proudly. They ran back to the village and gathered their friends. Together, they planted the young trees near the mgosa tree. They promised to water

them, protect them, and teach others what they had learned. Weeks later, dark clouds finally filled the sky. The children cheered as raindrops began to fall, tapping joyfully on the leaves. “The rain found its way home,” Lena whispered. Gogo Mwale nodded. “Yes—and with climate heroes like you, it will keep finding its way.” And from that day on, the children of Ching’amba became guardians of the earth—small heroes with big dreams for a safer, greener Malawi.



# Weather Word Search



**KEEP AN EYE ON THE SKIES!**

Find and circle all of the words in the list below.

FOG	TORNADO
SUNNY	STORM
RAIN	HAIL
CLOUDS	THUNDER
SNOW	WIND

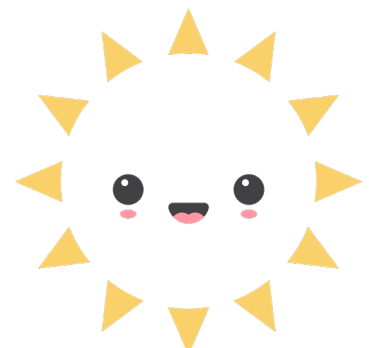


## QUIZ TIME

What is a thunderstorm? \_\_\_\_\_

Where do you think lightning comes from? \_\_\_\_\_

Why do you think the clouds go dark? \_\_\_\_\_



# DCCMS IN THE NEWS



MINISTRY OF NATURAL RESOURCES AND CLIMATE CHANGE  
DEPARTMENT OF CLIMATE CHANGE  
AND METEOROLOGICAL SERVICES

## INSIDE SOFF Invests \$3.8M to Boost Malawi's Weather Observation and Early Warning Capacity



### DCCMS warns on looming Tropical Storm CHENGE

[https://web.facebook.com/malawinewsagency/posts/mananewsdccms-warns-on-looming-tropical-storm-chengeblantyre-october-20-mana-dep/1329102745894905/?\\_rdc=1&\\_rdr#](https://web.facebook.com/malawinewsagency/posts/mananewsdccms-warns-on-looming-tropical-storm-chengeblantyre-october-20-mana-dep/1329102745894905/?_rdc=1&_rdr#) By Petro Mkandaiwre - MANA



### DCCMS Pushes for Meteorological Bill to Curb Man-Made Disasters

<https://www.zodiakmalawi.com/national-news/news-in-the-southern-region/dccms-pushes-for-meteorological-bill-to-curb-man-made-disasters> By Beston Luka - Zodiak



### Climate reporting - DCCMS, journalists to strengthen accurate climate reporting

<https://planetdefence.substack.com/p/climate-reporting-dccms-journalists>  
By Planet Defence



### DCCMS urges people to utilize seasonal forecast for proper planning

[https://web.facebook.com/malawinewsagency/posts/mananewsdccms-urges-people-to-utilize-seasonal-forecast-for-proper-planningmzuzu/1311502900988223/?\\_rdc=1&\\_rdr#](https://web.facebook.com/malawinewsagency/posts/mananewsdccms-urges-people-to-utilize-seasonal-forecast-for-proper-planningmzuzu/1311502900988223/?_rdc=1&_rdr#) By George Bulombola - MANA



### Weather experts have urged the country's journalists to familiarize themselves with weather and climate issues to ensure the public receives accurate information.

[https://web.facebook.com/Times360Malawi/posts/times360malawi-weather-experts-have-urged-the-countrys-journalists-to-familiariz/1188876883425568/?\\_rdc=1&\\_rdr#](https://web.facebook.com/Times360Malawi/posts/times360malawi-weather-experts-have-urged-the-countrys-journalists-to-familiariz/1188876883425568/?_rdc=1&_rdr#) By Blessings Tambala - Times 360Malawi



### Malawi Trains Journalists to Improve Climate Change Reporting Accuracy

<https://africabrief.substack.com/p/malawi-trains-journalists-to-improve>  
By AfricaBrief



### A user engagement expert at DCCMS, Collison Lore, has urged local journalists and media practitioners to familiarize themselves with weather

[https://web.facebook.com/CapitalFMMalawi/posts/a-user-engagement-expert-at-the-department-of-climate-change-and-meteorological-/1229003465914252/?\\_rdc=1&\\_rdr#](https://web.facebook.com/CapitalFMMalawi/posts/a-user-engagement-expert-at-the-department-of-climate-change-and-meteorological-/1229003465914252/?_rdc=1&_rdr#) By Capital FM Malawi Post

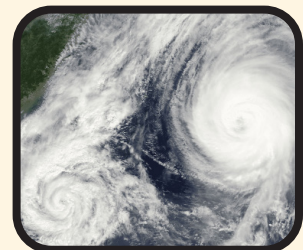
## Our Service Areas



Agrometeorology



Aviation



Weather

## Climate Change

## Health

## Disaster Risk Management



YouTube

Be wise, Be weather wise!!

<https://www.metmalawi.gov.mw/>

