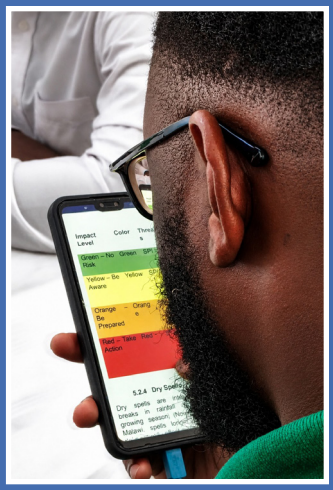
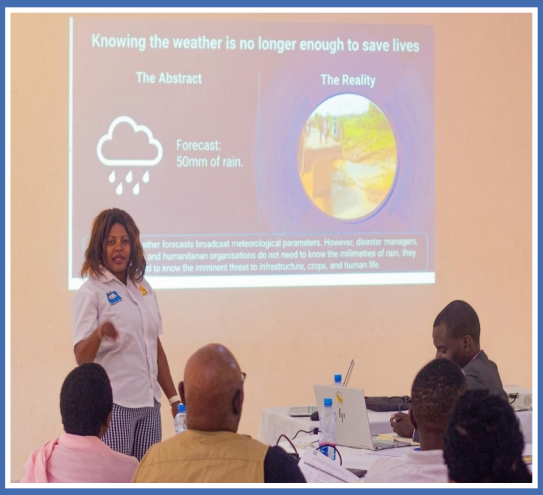
THE ZANYENGO E-NEWSLETTER

Be Wise! Be Weather Wise!





UNITY AND FREEDOM

Ministry of Natural Resources

Department Of Climate Change & Meteorological Services

JUNE 2026

IN THIS EDITION

Edition - Vi

THE DCCMS

Be Wise! Be weather Wise!

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FROM THE DIRECTOR'S DESK

It is my pleasure to welcome you to the 6th edition of the ZANYENGO E-Newsletter, which showcases the Department of Climate Change and Meteorological Services' sustained commitment to delivering reliable weather, climate, and early warning services for the people of Malawi.

This quarter reflects tangible progress in our mission to translate climate information into practical, localised action. Through the institutionalisation of Impact-Based Forecasting (IBF), DCCMS is moving beyond simply predicting weather conditions.

We are strengthening our ability to answer the critical questions that communities, institutions, and decision-makers need most to protect lives: what the weather is expected to do, who may be affected, and what specific actions can be taken to reduce risk before a hazard occurs.

Our institutional reach also continues to deepen across climate-sensitive sectors, anchoring early warning in stronger collaborative frameworks. The ongoing development of the Health Early Warning and Response System (HEWARS) demonstrates how weather and climate intelligence can be integrated to strengthen public health preparedness and outbreak response.

Likewise, the recent familiarisation visit by the Minister of Natural Resources – The Hon Patricia Wiskes MP to our aviation meteorological operations at

Dr. Lucy Mtilatila-
DCCMS Director

Kamuzu International Airport (KIA) underscored a shared understanding: robust meteorological services are an essential pillar for air navigation safety, and efficiency.

As Malawi enters into planning for the 2026/2027 rainfall season, emerging El Niño signals remind us of an enduring lesson: timely early warning requires coordinated and proactive action across government ministries, development partners, academia, humanitarian actors, and local communities.

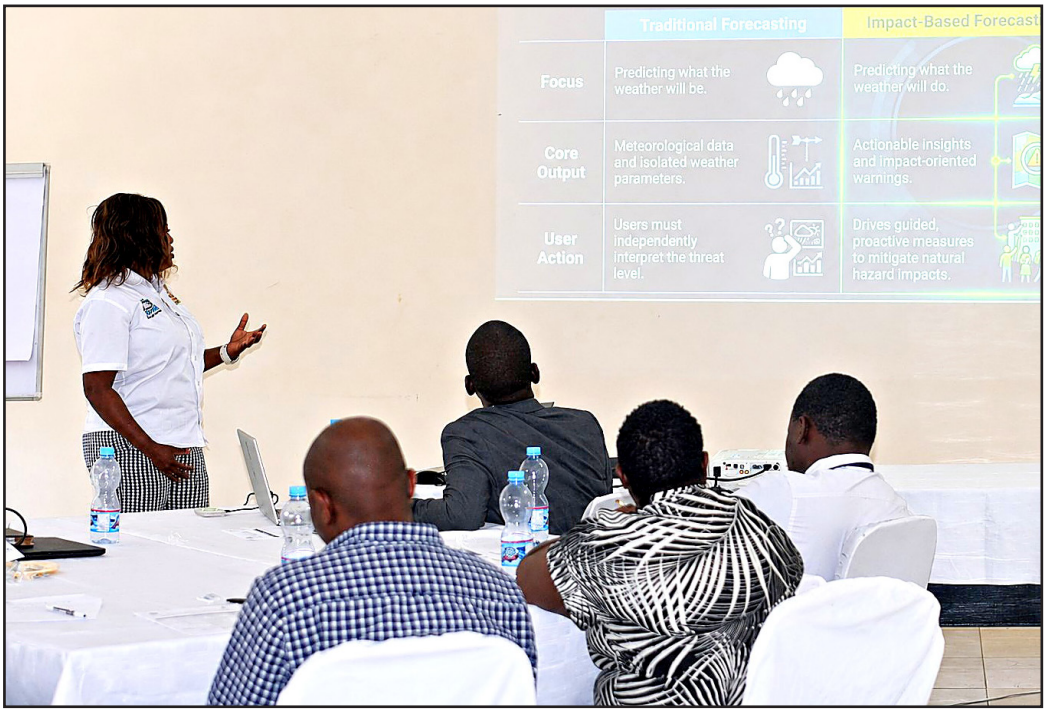
This integrated, people-centred approach — rooted in active partnership and shared institutional responsibility — is key to safeguarding development gains and building a climate-resilient nation.

I extend my profound thanks to our dedicated staff, strategic partners, and stakeholders for their steadfast commitment to strengthening weather and climate services for a safer, more prepared, and more resilient Malawi.

DCCMS Moves from Weather Forecasts to Impact-Based Warnings

By Keenness Mang'anda & James Pagona

As climate-related hazards such as floods, storms, strong winds, droughts and heatwaves become increasingly frequent, the Department of Climate Change and Meteorological Services (DCCMS) is transforming the way weather, and climate warnings are delivered in Malawi.



DCCMS leads an Impact-Based Forecasting stakeholder session.

Through the implementation of Impact-Based Forecasting (IBF), the Department is moving beyond forecasts that describe what the weather will be towards warnings that explain what the weather is expected to do and what actions can be taken before disasters occur.

For decades, weather and climate forecasts have focused primarily on describing expected atmospheric conditions.

A forecast such as "expect heavy rain tomorrow" provides valuable meteorological information, but it does not always answer the practical questions that disaster risk managers, humanitarian organizations and local authorities need to act in time.

To take effective action before disasters occur, decision-makers require a clear understanding of the likely consequences of those weather events. Critical questions, such as how many people may be affected, which communities are most vulnerable, what infrastructure could be damaged and how livelihoods might be disrupted, are essential for timely preparedness and response.

Why IBF matters

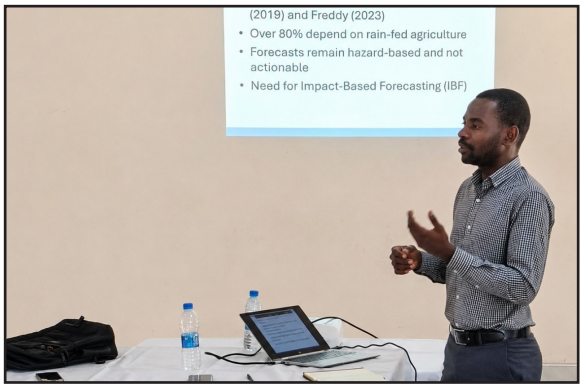
Impact-Based Forecasting helps address this gap by making a paradigm-shifting difference. Rather than simply explaining atmospheric data, IBF communicates what the weather is expected to do on the ground.

For example, instead of only forecasting heavy rainfall, an impact-based forecast may indicate that "1,000 houses are expected to be damaged as a result of the anticipated rainfall".

An impact-based warning can also explain that flooding may affect low-lying communities, damage crops, disrupt transport routes and threaten critical services. It can then provide guidance on preparedness measures that communities and authorities can take before the hazard occurs.

By translating meteorological data into likely impacts on people, property, livelihoods and economic activities, IBF enables authorities and humanitarian actors to make informed decisions and implement targeted early actions.

These actions may include pre-positioning relief supplies, issuing evacuation advisories, protecting critical infrastructure or mobilizing emergency response teams before disaster strikes.



James Pagona explains importance of IBF

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Building a nationally coordinated IBF system

Participants from government institutions, disaster risk management structures, humanitarian organizations, development partners, academia, and media take part in the IBF stakeholder engagement process.

As climate-related hazards become more frequent and severe, IBF represents a significant milestone in early warning systems. By bridging the gap between weather forecasts and practical decision-making, it strengthens the way communities anticipate, prepare for and reduce the impacts of weather and climate events, helping to save lives and reduce losses.

DCCMS has already made significant progress in laying the groundwork for a nationally coordinated Impact-Based Forecasting system. Over the past two months (April-May 2026), the Department has conducted extensive stakeholder engagement activities involving government ministries and departments, local councils, disaster risk management institutions, humanitarian organizations, development partners, academia, media organizations and community representatives.

These consultations have helped build consensus on how weather and climate information can be better linked to disaster risk reduction and anticipatory action.

A comprehensive stakeholder mapping exercise has also been completed to identify the roles and responsibilities of all institutions involved in the early warning and early action value chain. This step helps ensure that every stakeholder clearly understands how they contribute to turning forecasts into meaningful action on the ground.

To guide long-term implementation, DCCMS has developed a National Impact-Based Forecasting Framework for Malawi. The framework provides a structured approach for integrating hazard forecasts, exposure information, vulnerability assessments, impact analysis, warning generation and early action planning. Furthermore, the Department has developed training manuals tailored for different stakeholders, including technical personnel, disaster management practitioners, local authorities, community structures and frontline responders.

These materials will support ongoing capacity-building efforts and strengthen the understanding of Impact-Based Forecasting across all levels.

Local solutions for local risks

With communities at the centre of disaster preparedness and response, DCCMS is working closely with local structures to ensure that weather and climate information is fully understandable, actionable, and relevant to local needs.

One of the key features of Malawi's Impact-Based Forecasting approach is the localization of warning thresholds. The Department understands that the exact same amount of rainfall, wind speed, river level, or dry spell duration may produce entirely different impacts depending on the location.

Factors such as settlement patterns, terrain, drainage systems, infrastructure, agricultural activities, and existing vulnerability levels all heavily influence how communities are affected.

To address this reality, DCCMS is collaborating with the Department of Water Resources, the Department of Disaster Management Affairs (DoDMA), district councils, sector ministries, humanitarian organizations, local disaster risk management committees, and communities.

Through this people-centered approach, they are establishing locally relevant warning thresholds based on historical impacts and ground realities, ensuring warnings are both scientifically sound and deeply meaningful to the people who need them most.

Harnessing technology for faster decision-making

As part of its ongoing modernization efforts, DCCMS is planning the development of a centralized Impact-Based Forecasting Dashboard. This

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digital platform will unite weather forecasts, hazard information, exposure data, vulnerability indicators, impact assessments, and early action recommendations into a single interface.

By streamlining information sharing, the dashboard will support forecasters, disaster managers, humanitarian agencies, government institutions, and other stakeholders by providing them with real-time, timely data required for swift, coordinated response planning and decision-making.

Ultimately, the platform is expected to strengthen overall preparedness, improve information sharing, and support robust anticipatory action before disasters occur.

Leaving no one behind

A key principle of the DCCMS Impact-Based Forecasting initiative is inclusivity. The Department is ensuring that Gender Equality and Social Inclusion (GESI) considerations are fully integrated into the entire forecasting and warning process.

Special attention is directed toward the needs of those who are historically and disproportionately affected by disasters, including women, children, older persons, persons with disabilities and people living with chronic illnesses.

By incorporating social vital vulnerability indicators directly into risk assessments and warning products, DCCMS aims to ensure that no one is left behind when life-saving weather and climate information is issued.

Towards a more resilient Malawi

Through the institutionalization of Impact-Based Forecasting, DCCMS is strengthening Malawi's capacity to anticipate, prepare for and respond to weather and climate hazards.

This milestone has been made possible with the strong support of the World Food Programme (WFP), whose partnership has played a key role in advancing the development of a nationally coordinated Impact-Based Forecasting system in Malawi.

By combining rigorous meteorological science with local knowledge, cross-sector partnerships, modern technology and deep community engagement, the Department is helping turn forecasts into timely action and early warnings into early solutions.

The initiative marks an important step towards a safer, more resilient Malawi. In this future, weather information no longer only tells people what the weather will be like.

It also helps them understand what it means, who may be affected and what can be done to reduce risks before disaster strikes.

Charles Vanya, moderating a group discussion during the IBF engagement

Clement Boyce, DCCMS Deputy Director, expresses satisfaction with the successful IBF stakeholder engagement, as participants share positive feedback on the process and its outcomes

APRIL - JUNE HIGHLIGHTS

Minister of Natural Resources Visits KIA Meteorological Offices

By Robert Namakhwa

The Department of Climate Change and Meteorological Services (DCCMS) offices at Kamuzu International Airport (KIA) were honoured to host a familiarization visit by the Minister of Natural Resources, Honourable Patricia Wiskes, MP, on 9 June 2026.

The Minister, accompanied by the Principal Secretary, engaged with DCCMS officials to appreciate the Department's critical role in weather and climate services and to gain a deeper understanding of the operational challenges it faces.

During the visit, the Minister inspected several sections of the KIA meteorological offices, including the Central Forecasting Office (CFO), the Surface Observation Station (SOS), the Main Meteorological Office (MMO) and the Upper Air Section.

Representatives from Airport Development Limited (ADL) and the Police Department also attended the engagement, reflecting the coordinated nature of airport operations and the shared responsibility of ensuring safety in air navigation.

Every weather forecast begins with accurate and timely observations. In recognition of this, the Minister spent time at the Surface Observation Station after visiting the Central Forecasting Office. At the station, she was introduced to key procedures involved in daily weather observations and briefed on the instruments used to measure critical weather parameters.

Honourable Patricia Wiskes, MP, Minister of Natural Resources, is welcomed at the Main Meteorological Office during her familiarization

The Surface Observation Station hosts essential equipment such as the Stevenson Screen, Rain Gauge and Campbell–Stokes Recorder, which support manual weather observations. It is complemented by an Automatic Weather Station (AWS), which delivers real-time data used for aviation services and other forecasting needs.

The SOS Supervisor, Howard Msewa, explained the continuous activities undertaken at the station to collect data for critical weather parameters daily, including weekends and night operations. Once compiled, this raw weather data is archived and transmitted to the Main Meteorological Office, where actual weather forecasting takes place.

At the Main Meteorological Office, the Minister further appreciated the work of weather forecasters through a detailed briefing conducted by the office supervisor, Jarson Sokosa. Greater emphasis was placed on demonstrating the critical importance of weather information in aviation, focusing on sensitive parameters such as wind velocity, cloud cover and horizontal visibility.

The Minister observed how weather information for the KIA Control Tower is generated on an hourly basis using data received from the SOS. This information is displayed through CCTV systems accessible to the air traffic control team, supporting timely decision-making for aviation operations.

In addition, the office demonstrated its use of manual synoptic weather chart analysis, which helps identify prevailing surface weather systems, including high- and low-pressure systems. The supervisor also explained some of the scheduled and special forecasts generated by the office, including Aviation Selected Special Weather Reports (SPECIs), issued when

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The SOS Supervisor takes through the Minister in some of the procedures

significant weather changes occur at the aerodrome, and Terminal Aerodrome Forecasts, produced at designated times each day.

The Minister was further introduced to Numerical Weather Prediction (NWP) models and satellite-based tools that support daily forecasting operations. These include COSMO, a limited-area forecasting model, and PUMA, a satellite data system that gives forecasters access to Meteosat data and other meteorological products. The office also showcased recently adopted systems that support real-time weather observations at the runway, including the Automatic Weather Observation System (AWOS) and the Low-Level Wind Shear Alert System (LLWAS).

Addressing Strategic Challenges & the Push for Radar Technology

The familiarization visit concluded at the Upper Air Section, where a meeting was convened to discuss the strategic challenges affecting both the KIA office and the wider Department. Detailed presentations were delivered by the Director of DCCMS, Dr Lucy Mtilatila, and the KIA Office In-Charge, Annie Gondwe.

Despite the critical services provided by DCCMS, the Department continues to face several challenges, including inadequate funding, staffing shortages, poor working conditions, inadequate equipment, and low professional and duty allowances, among others.

Dr Lucy Mtilatila elaborated on the strategic need to incorporate radar operations into Malawi's meteorological services. Currently, much of the Department's weather observation and forecasting work relies heavily on satellite products.

The introduction of radar technology would significantly enhance operations by providing much higher-resolution outputs compared to satellite-based observations.

Radar operations would particularly benefit KIA, which is frequently affected by severe fog conditions that disrupt flight schedules. Modern radar systems would improve the speed and accuracy of monitoring and forecasting these visibility hazards, assisting forecasters in determining when fog is likely to dissipate so that aircraft take-off and landing operations can safely resume.

Ministry Recommitment and Legislative Frameworks

At the conclusion of the meeting, Honourable Patricia Wiskes, MP, acknowledged the crucial role DCCMS plays in disaster risk reduction and in safeguarding lives and property.

She assured the Department that the highlighted challenges had been noted and reaffirmed the Ministry's commitment to addressing them.

In addition, the Minister pledged to support progress towards the enactment of the Meteorological Bill, which is expected to strengthen the Department's legal and financial frameworks.

The Minister also expressed her desire for continued developmental engagements with the meteorological office in the future. Her visit marked an important step in strengthening dialogue between the Ministry and DCCMS, while reaffirming the importance of investing in meteorological services for aviation safety, disaster preparedness and a climate-resilient Malawi.

From Classroom to Forecasting: MUST Students Step Into Real-World Meteorology

By Daniel Action Chinyama

The transition from classroom learning to professional practice marks a significant milestone in every student's academic journey.

For eight students pursuing a Bachelor of Science in Meteorology and Climate Science at the Malawi University of Science and Technology (MUST), this transition became a reality through a Work-Integrated Learning (WIL) attachment with the Department of Climate Change and Meteorological Services (DCCMS) at Kamuzu International Airport (KIA).

MUST Students Step Into Real-World Meteorology

This specialized attachment provided the students with an invaluable opportunity to apply theoretical knowledge gained in class to real-world meteorological operations.

Under the direct guidance of experienced meteorologists and aviation weather personnel, the students gained rigorous, practical exposure to weather observation, forecasting, and the critical aviation meteorology services that support safe and efficient air transport in Malawi.

Working under the supervision of Mr. Jarson Sokosa and other dedicated DCCMS professionals, the cohort rotated through key operational sections, including the Surface Observation Station (SOS) and the Main Meteorological Office (MMO).

Mastering the Fundamentals at the Surface Observation Station

At the Surface Observation Station, the students were introduced to the fundamentals of weather observation and climate monitoring. The training covered the operational functions of manual and automated meteorological instruments, climate records management, and standard observation procedures.

The students also learned the precise preparation of critical aviation weather communications, specifically Meteorological Aerodrome Reports (METAR) and SPECI reports. Through hands-on exercises in instrument checking and observation recording, the cohort developed a practical understanding of the strict quality-control measures required to maintain high-quality weather data.

Operational Forecasting at the Main Meteorological Office

The attachment further exposed the students to the fast-paced environment of operational forecasting. At the Main Meteorological Office, they actively participated in real-time synoptic chart analysis, the identification of developing weather systems, and international weather data transmission.

The MUST students also assisted in the preparation of standard aviation weather products, including Terminal Aerodrome Forecasts (TAFs), Significant Meteorological Information advisories (SIGMETs), Trend Forecasts, and pilot flight folders. For many in the cohort, this was their first opportunity to witness how meteorological information is generated, analyzed, and communicated in a live operational environment.

The intensive experience effectively bridged the gap between academic theory and real-world practice, providing a deeper understanding of the vital role weather services play in aviation safety and national

Professional Growth and Mentorship

Reflecting on the attachment, the students expressed deep appreciation for the mentorship and support extended by the DCCMS staff throughout their placement.

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In his remarks at the end of the attachment, Mr. Sokosa encouraged the students to apply their newly acquired skills to support informed decision-making in agriculture, transportation, and disaster preparedness within their daily lives.

He reminded the students that they are now formal ambassadors of Meteorology and Climate Science, carrying a responsibility to share accurate weather information and raise awareness of climate services across their respective communities.

One student noted that participating in operational forecasting and weather observations allowed them to put many classroom concepts into context while revealing the daily responsibilities and challenges faced by practicing meteorologists.

Beyond technical meteorological training, the immersion strengthened essential professional skills, including workplace communication, collaborative teamwork, and analytical problem-solving.

Highlighting the long-term value of student attachments, supervisor Mr. Jarson Sokosa noted that practical exposure is essential for developing competent meteorological professionals capable of contributing effectively to Malawi's weather and climate services.

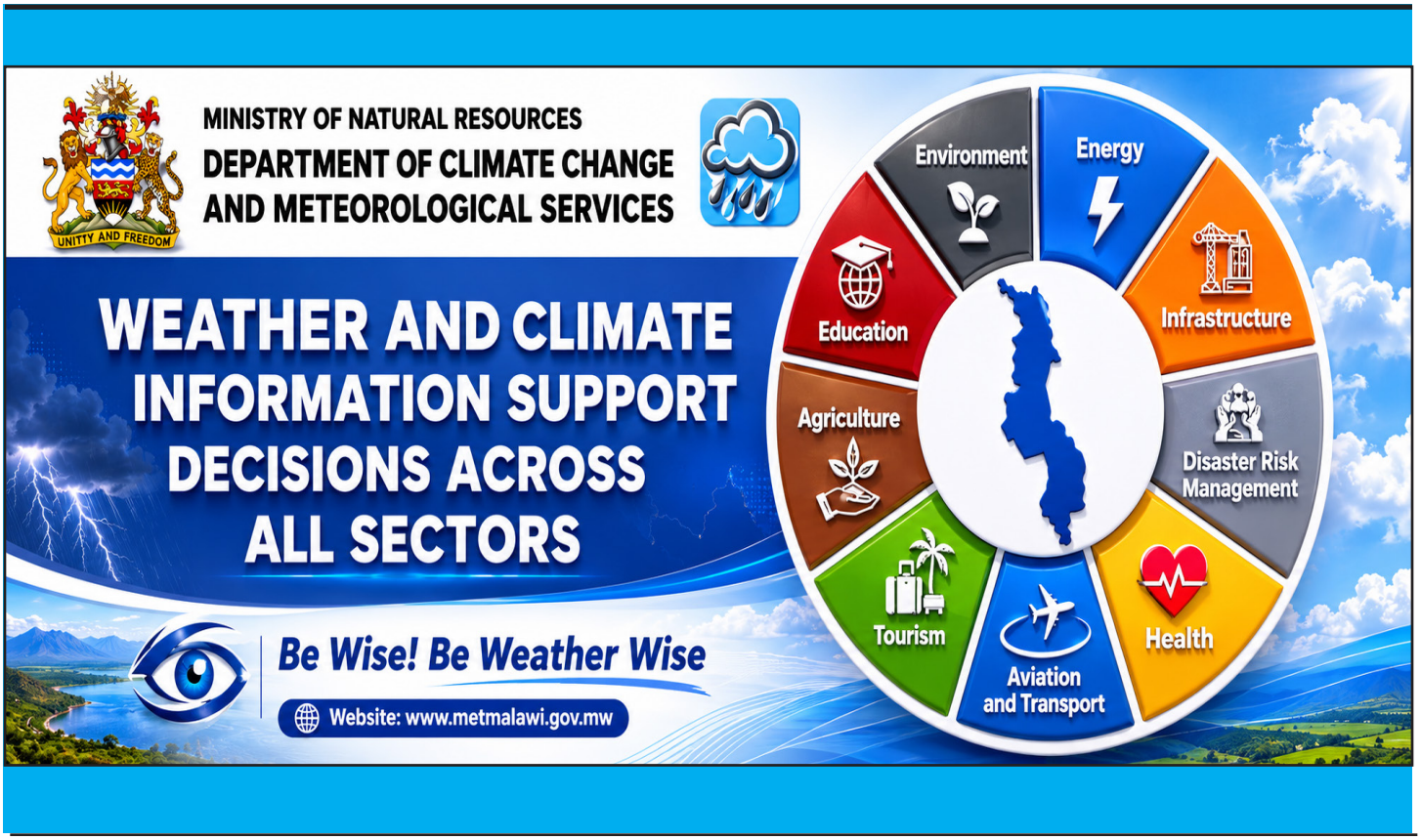
Nurturing the Next Generation of Scientists

Work-Integrated Learning remains a cornerstone of higher education, equipping students with the confidence and operational technical skills needed to excel in their future careers.

Through strategic partnerships between academic institutions like MUST and operational departments like DCCMS, Malawi continues to build a strong foundation for its hydro-meteorological value chain.

As the eight students conclude their attachment at Kamuzu International Airport, they leave with a renewed appreciation of operational meteorology and a stronger foundation for their future careers.

Their experience demonstrates the value of experiential learning in preparing the next generation of meteorologists who will contribute to weather, climate and aviation safety across the nation.



Preparing for a Potential "Strong El Niño": Strengthening Anticipatory Action in Malawi

By Robert Namakhwa and Mphatso Tawakali

As Malawi prepares for the 2026/2027 rainfall season, which runs from October to April, early preparedness and coordinated Anticipatory Action remain critical.

Around the world, communities are increasingly experiencing the devastating impacts of extreme weather events, including floods, wildfires and heatwaves.

These events are occurring in the context of a changing climate and growing concerns about the potential development of El Niño conditions during the 2026/2027 season. For Malawi, this calls for careful monitoring, timely planning and strengthened preparedness measures.

Past El Niño seasons have been associated with prolonged dry spells, reduced rainfall in some areas, and significant impacts on agriculture, food security, water resources and livelihoods. Climate model analyses referenced by scientists indicate the possibility of a strong El Niño event, with 2027 projected to become one of the warmest El Niño years in recorded history.

Across Africa, recent climate-related disasters continue to highlight the vulnerability of many countries to extreme weather events. In May 2026, Somalia experienced severe and destructive flooding, underlining the exposure of the continent to climate shocks.

Malawi is also vulnerable, particularly considering the impacts of recent extreme events such as Tropical Cyclone Freddy, which affected the country during the 2023/2024 El Niño season.

Understanding El Niño

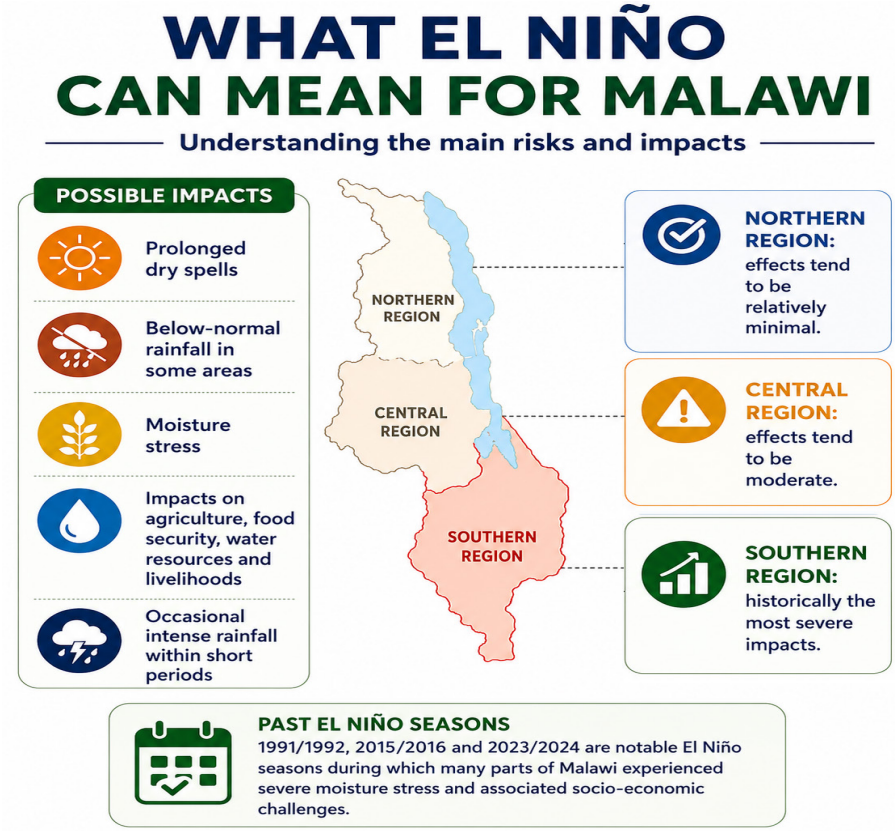
To appreciate the significance of the anticipated El Niño threat, it is essential to understand the science behind the phenomenon.

El Niño is one of the phases of the El Niño Southern Oscillation, commonly known as ENSO. ENSO is a coupled ocean-atmosphere phenomenon and one of the most influential large-scale climate systems affecting seasonal rainfall, temperature patterns, droughts, floods and agricultural productivity across the world, including Africa and Malawi.

Originating in the tropical Pacific Ocean, specifically within the central and eastern Pacific regions, ENSO is continuously monitored using Sea Surface Temperature (SST) anomalies.

The system moves through three main phases:

- **El Niño Phase:** Occurs when SSTs are warmer than average, typically rising equal to or above +0.5°C.
- **Neutral Phase:** Occurs when SSTs remain within the normal range, neither exceeding +0.5°C nor falling below -0.5°C.
- **La Niña Phase:** Occurs when SSTs are cooler than average, typically equal to or below -0.5°C.



Each phase influences different regions of the world in different ways, shaped by local climate characteristics, topography, climate change, and other environmental factors.

Current climate model projections indicate a high likelihood that the 2026/2027 season may be characterized by El Niño conditions. Due to the projected

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intensity, scientists have classified this potential event as a "Super El Niño," with Sea Surface Temperature anomalies likely ranging from +1.5°C to +1.9°C or higher according to the Oceanic Niño Index (ONI) classification.

For Malawi, a Strong El Niño presents a complex risk profile.

While it is commonly associated with prolonged dry spells and below-normal seasonal rainfall, it can also produce periods of intense rainfall occurring within very short timeframes.

Historically, the southern region has experienced the most severe impacts, while effects have tended to be moderate across the central region and relatively minimal in the northern region.

The El Niño seasons of 1991/1992, 2015/2016, and 2023/2024 are notable examples

during which many parts of Malawi experienced severe moisture stress and associated socio-economic challenges.

The rainfall anomaly and Standardized Precipitation Index analyses presented below illustrate rainfall patterns observed during selected El Niño conditions.

seasons.

The colors represent standardized anomalies. For rainfall anomalies, warm colors (yellow to red) indicate below-normal rainfall, while cool colors (cyan to blue) indicate above-normal rainfall.

On the SPI maps, positive values indicate wetter-than-normal conditions, whereas negative values signify drier-than-normal

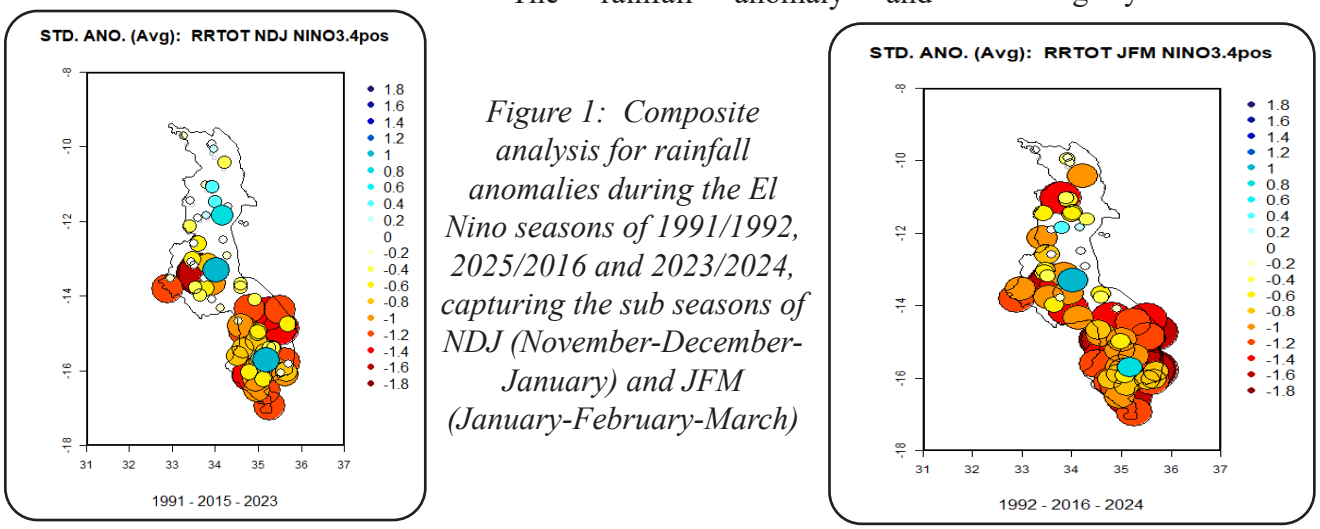


Figure 1: Composite analysis for rainfall anomalies during the El Nino seasons of 1991/1992, 2025/2016 and 2023/2024, capturing the sub seasons of NDJ (November-December-January) and JFM (January-February-March)

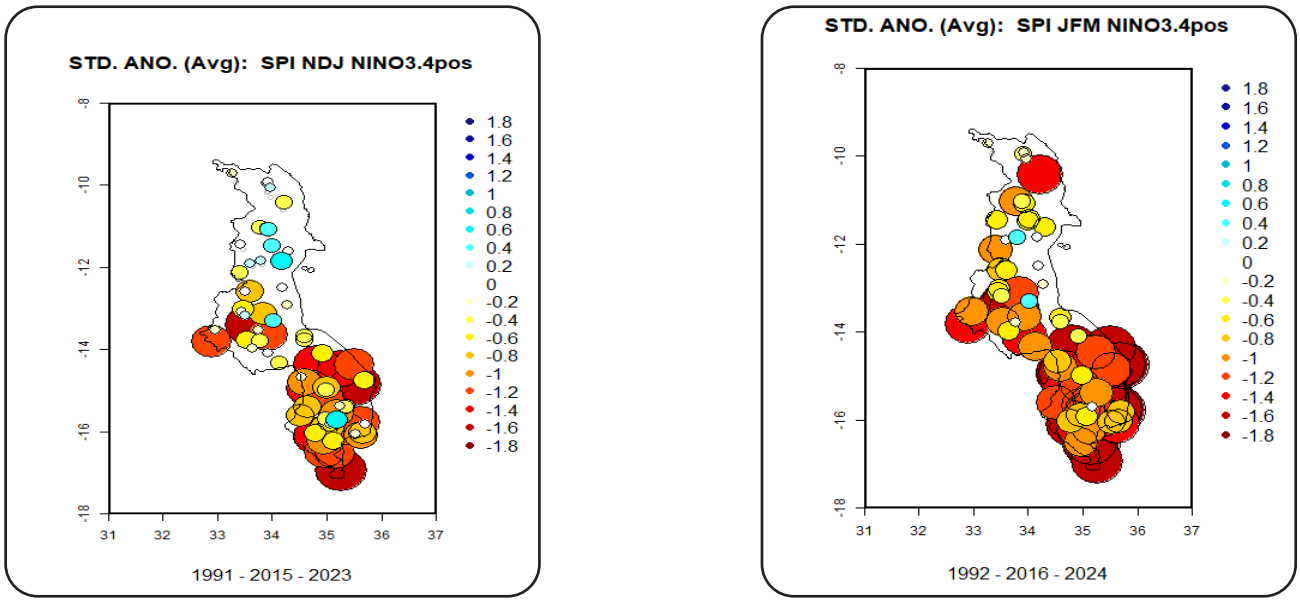


Figure 2: Composite analysis for Standard Precipitation Index (SPI) during the El Nino seasons of 1991/1992, 2015/2016 and 2023/2024, capturing the sub seasons of NDJ (November-December-January) and JFM (January-February-March)

Strengthening Anticipatory Action

Recognizing these compounding risks, the Department of Climate Change and Meteorological Services (DCCMS), in close collaboration with key stakeholders such as the World Food Programme (WFP), the Department of Disaster Management Affairs (DoDMA), and the Department of Water Resources (DWR), has made positive strides through collaborative Anticipatory Action initiatives.

A key pilot project is currently active across five vulnerable districts in southern Malawi: Mangochi, Machinga, Phalombe, Zomba, and Nsanje.

This initiative prioritizes rigorous drought monitoring well before the onset of each rainfall season.

Funded by WFP, the project utilizes an innovative drought Anticipatory Action monitoring dashboard known as PRISM.

By integrating seasonal forecasts from the European Centre for Medium-Range Weather Forecasts (ECMWF), the platform generates automated "Ready" and "Set" alerts whenever predefined drought-trigger conditions are met.

These triggers are calculated based on the probability of below-normal rainfall during the critical NDJ (November–December–January) and JFM (January–February–March) sub-seasons.

The practical value of this forecast-based system was demonstrated during the recently concluded 2025/2026 rainfall season, where PRISM successfully identified and tracked emerging below-normal rainfall conditions in Phalombe District, allowing for timely early action.

This example shows how forecast-based systems can support earlier decision-making and improve preparedness before climate-related hazards fully materialize.

The Way Forward

It also highlights the importance of collaboration between technical institutions, disaster risk management actors and development partners in strengthening early warning and Anticipatory Action systems.

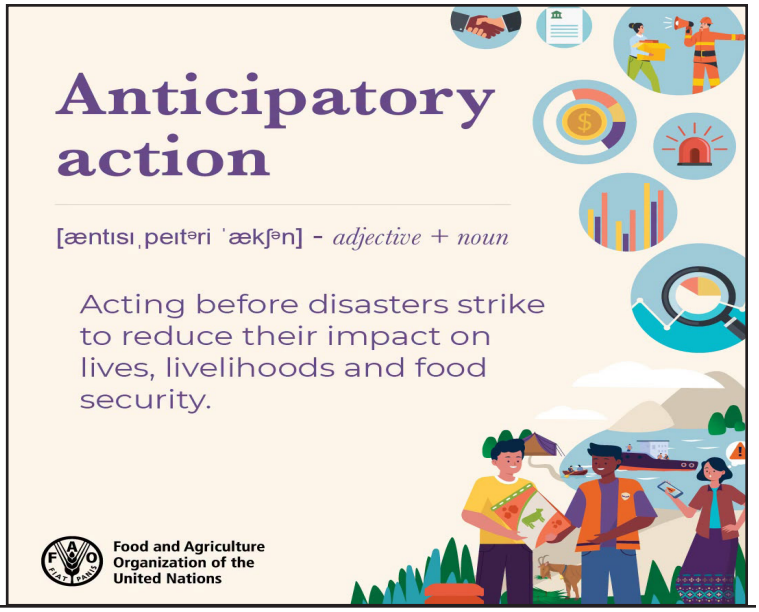
As Malawi and the global community continue to face a more volatile climate characterized by frequent droughts, flash floods, heatwaves and intense tropical cyclones, strengthening Anticipatory Action systems remains essential.

These hazards are being intensified by climate change as greenhouse gas concentrations continue to rise in the atmosphere.

To protect lives, safeguard livelihoods and reduce disaster-related losses, targeted investments are required in improved weather forecasting, effective early warning systems, stronger stakeholder collaboration and increased access to climate-finance resources.

Ultimately, adapting to a changing climate demands decisive and collective ownership. Inclusive Anticipatory Action offers one of our most practical pathways to mitigate disaster risk before a hazard manifests.

By reinforcing these operational frameworks today, Malawi can build climate-resilient communities, protect its economic development, and secure a more sustainable future for generations to come.



Malawi Hosts REPRESA Workshop on Climate Storylines and Early Warning

By Charles Vanya, James Pagona and Edwin Tadeyo

A cross-section of Participants attending the REPRESA technical workshop in Blantyre

Climate change is increasing the frequency and severity of extreme weather events across Southern Africa, placing communities, infrastructure, local economies and livelihoods at greater risk.

To strengthen preparedness and resilience, the Resilience and Preparedness to Tropical Cyclones across Southern Africa (REPRESA) project convened a three-day technical workshop in Blantyre from 6 to 8 May 2026.

The workshop brought together scientists, researchers, government agencies, humanitarian organisations and community representatives.

Organised in close collaboration with the Department of Climate Change and Meteorological Services (DCCMS), the workshop focused on translating climate research into practical tools and operational strategies to support decision-making and disaster risk management across Malawi.

Bridging Science and Practice

The workshop provided stakeholders with direct access to climate and hydrological datasets, analytical tools and practical training. Participants explored future climate projections, river-flow modelling, flood-risk assessments and lessons from community-based research conducted in flood-prone districts such as Nsanje and Chikwawa.

By bringing together experts and users of climate information, the workshop created an important platform for knowledge exchange and co-production of solutions that respond to Malawi's growing climate risks.

Building Technical Capacity for Early Warning Systems

A major focus of the workshop was strengthening technical skills for flood forecasting and early warning systems. Participants engaged in hands-on training sessions covering several operational tools and approaches.

Participants practised flood forecasting using the Global Flood Awareness System (GloFAS) and mapped flood hazards using LISFLOOD-FP and QGIS.

The practical sessions also covered the interpretation of tropical cyclone and river-flow data, access to kilometre-scale climate datasets, and the use of Python-based climate data analysis tools.

These sessions helped participants explore how scientific information can be integrated into operational forecasting, flood-risk assessment and anticipatory action.

Learning from Cyclone Freddy

Cyclone Freddy served as the central case study throughout the workshop simulation exercises.

Participants reflected on the cyclone's devastating impacts and examined how climate information, institutional coordination and community-level preparedness could be strengthened to reduce future losses.

Through localised vulnerability exercises, participants analysed how different social groups, including smallholder farmers, local fishers, women traders, internally displaced persons, the elderly and people living with disabilities, experience and respond to climate disasters.

The discussions reinforced an important lesson: climate impacts are not experienced equally. Vulnerability is shaped by social, economic and physical factors, requiring adaptation strategies that are inclusive and responsive to the needs of the most at-risk populations.

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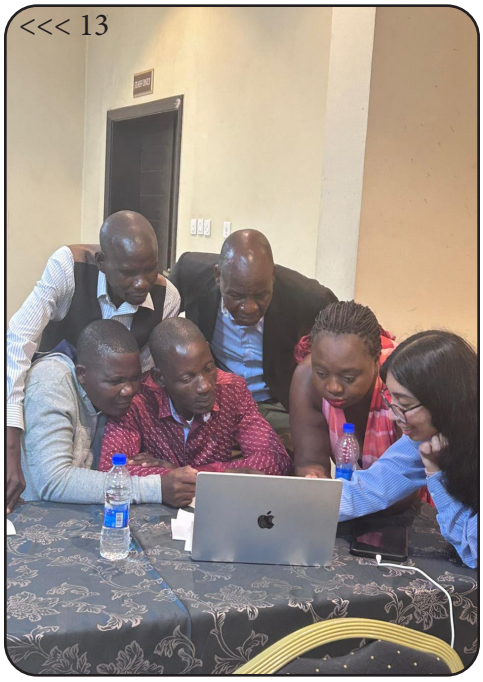

Community representatives explore REPRESA findings and discuss their implications for climate preparedness and adaptation in Malawi.

Introducing Climate Storylines

One of the most innovative components of the workshop was the introduction of Climate Storylines. This participatory approach combines scientific data with local knowledge to explore plausible future climate scenarios.

Using Cyclone Freddy as a starting point, participants co-produced narratives to examine future extreme events, identify socio-economic vulnerabilities and explore opportunities for adaptation and anticipatory action before disasters occur.

The storyline process encouraged participants to think beyond immediate disaster response and consider longer-term resilience, governance and development challenges.

It also provided a useful framework for strengthening dialogue between scientists, policymakers, practitioners and community leaders.

Key Findings and Messages

Several important messages emerged from the workshop. Participants noted that flood risk in Malawi is becoming more widespread, and that stronger integration of scientific and local knowledge can improve understanding and uptake of early warning information.

The discussions also highlighted that effective early warning systems depend not only on technology, but also on community trust, awareness and local capacities.

Financial barriers continue to limit household preparedness and early action.

In addition, the lack of localised, district-level trigger mechanisms remains a critical gap in current anticipatory action frameworks.

Participants further highlighted Climate Storylines as a useful tool for strengthening multi-sectoral planning and policy dialogue.

They also stressed the importance of translating technical terminology into local languages to improve public understanding and encourage timely action when warnings are issued.

Priority Commitments

The REPRESA workshop concluded with a commitment to strengthen Malawi's climate resilience through improved access to data, enhanced localised forecasting and stronger cross-sector collaboration.

To guide the next phase, DCCMS and its partners identified priority actions, including developing district-level flood and multi-hazard triggers, reviewing standard operating procedures for early warning systems, and expanding the use of Climate Storylines in planning processes.

Partners also committed to strengthening hydro-meteorological information sharing and supporting continued access to climate data and analytical platforms such as JASMIN.

As climate risks continue to evolve, initiatives such as REPRESA demonstrate the value of combining scientific innovation, local knowledge and collaborative action to build a more resilient future for Malawi.

Through partnerships, capacity strengthening and co-produced solutions, Malawi is taking important steps towards transforming climate information into meaningful action that protects lives, livelihoods and development gains.

Lightning does not give second chances

By Chifundo Limbikani

Lightning is often seen as just a dramatic flash in the sky.
In reality, it is one of the deadliest weather hazards. It is fast, unpredictable and often underestimated.

Why Lightning Is Dangerous

Lightning carries millions of volts of electricity and can strike with little warning. A person does not need to be hit directly to be seriously injured or killed.

Ground currents from a nearby strike can also cause serious harm.

This makes lightning a major public-safety concern, especially during thunderstorms and the rainy season.

Debunking Three Common Misconceptions

Many people remain at risk because of common myths about lightning safety.

•Myth 1: "Lightning will not strike the same place twice."
Reality: This is false.
Lightning can strike the same location multiple times, depending on geography and surrounding structures.
•Myth 2: "I am safe under a tree."
Reality: This is extremely dangerous. Isolated trees can attract lightning and expose people sheltering beneath them to serious risk.
•Myth 3: "If it is not raining heavily, I am safe."
Reality: This is not necessarily true. Lightning can still occur when rainfall is light or when a storm is nearby.

High-Risk Situations to Avoid

People are more exposed to lightning danger when they are:
•standing in open fields;
taking shelter under isolated trees;
•using electrical appliances during storms; staying near water bodies.

How to Stay Safe

When thunderstorms occur, people should take quick action to reduce risk.
•Seek proper shelter in a building or enclosed vehicle.

•Avoid open spaces and tall objects.
•Disconnect electrical devices.
•Stay indoors until the storm passes.

DCCMS Joins Validation Workshop on Climate-Resilient Health Project

By Hussein Milanzi

Representatives from Government ministries, departments, development partners and implementing organisations gathered for the Baseline Assessment Report Validation Workshop for the Climate Resilient Health and Well-being for Rural Communities in Southern Malawi (CHWBRC) project.

Convened by Save the Children Malawi in collaboration with the Ministry of Health and Sanitation, CRECCOM and the Catholic Health Commission, the workshop marked an important step in reviewing and validating findings from the project's baseline assessment.

The CHWBRC project is a five-year initiative running from April 2025 to March 2030. It is funded by the Green Climate Fund, with co-financing from FCDO, Foundation S/Sanofi, GlaxoSmithKline and the Moondance Foundation.

The project is led by the Ministry of Health and Sanitation in collaboration with Save the Children International and implemented in partnership with the Catholic Health Commission and CRECCOM.

The project targets six districts in Southern Malawi: Balaka, Ntcheu, Machinga, Mangochi, Phalombe and Zomba. It aims to strengthen the climate resilience of the healthcare system, with a strong focus on women, children and other vulnerable groups.

Officially opening the workshop, Mr Holystone Kafanikhale, Deputy Director for the Division of Public Health, emphasized that climate change is significantly affecting public health and community well-being.

He called on participants to review, validate and provide constructive input into the baseline assessment findings to ensure accuracy and strengthen evidence-based implementation of project interventions.

This message was reinforced by Save the Children Country Director, Mr Bhekimpilo Khanye, who highlighted the importance of the validation process in transforming data into credible evidence, reinforcing accountability to communities and donors, and establishing a benchmark for measuring progress over the five-year project period.

The baseline assessment confirms that communities in Southern Malawi are already facing sustained climate stress, with important gaps in health system preparedness.

Key areas highlighted include climate-sensitive disease burdens, incomplete access to climate-informed early warning systems, infrastructure resilience gaps, uneven workforce training, inconsistent household-level preparedness, and nutrition vulnerabilities linked to climate risks.

The assessment further noted that only 3.8 percent of health facilities had access to a climate-informed Early Warning, Alert and Response System dashboard, while training coverage on climate-health linkages among outreach staff and community health volunteers stood at 5.7 percent overal.

For DCCMS, the workshop provided an important platform to contribute to discussions on strengthening climate-health integration.

The Department's participation reflects its role in supporting early warning systems, climate information services and evidence-based planning for climate-sensitive health risks such as malaria, cholera, diarrhoeal diseases, malnutrition and heat-related illnesses.

Stakeholders from Government ministries, departments, development partners and implementing organisations participate in the CHWBRC Baseline Assessment Report Validation Workshop.

Rainy Season Safety: Five Mistakes That Put Lives at Risk

By Chifundo Limbikani

When the rainy season begins, most people assume they are prepared. After all, rain comes every year.

Yet, year after year, the same mistakes continue to cause avoidable property damage, severe injuries and even tragic loss of life.

The deep wounds left behind by extreme events like the 2023 Tropical Cyclone Freddy serve as a stark reminder of our vulnerability.

1. Ignoring Early Weather Warnings

Many people underestimate seasonal and daily forecasts, assuming that it is "just normal rain." However, modern weather alerts are built on rigorous scientific data, observations and forecast patterns.

Ignoring them can leave individuals, households and communities unprepared for flash floods, storms and other dangerous weather events.

2. Poor Waste Disposal Habits

Throwing garbage into drains may seem harmless during dry weather conditions. But, when the rains come, waste can block drainage systems, causing water to overflow into homes, roads and public spaces. Proper waste disposal is therefore an important part of flood-risk reduction.

3. Attempting to Cross Flooded Areas

This remains one of the most dangerous behaviors witnessed during the rainy season.

People frequently attempt to cross flooded roads, pathways, or bridges without knowing the depth of the water or the strength of the current. This can lead to serious injury or loss of life. If an area is flooded, the safest decision is to avoid crossing.

4. Weak Household Preparedness

Very few households take the proactive step to prepare emergency kits, secure weak roofs, or reinforce their homes before the rains intensify. Waiting until a disaster strikes is always too late. Simple preparedness actions taken early can help protect lives, homes and property.

5. Relying on Assumptions Instead of Information

Defensive statements such as "It has never flooded here before" can create a false sense of security. Climate patterns are changing, and past experience is no longer always a reliable guide for predicting current environmental risks. People should rely on official weather updates and early warnings instead of assumptions.

Malawi Advances Climate-Informed Health Early Warning and Response System

By Hussein Milanzi & Mikaïla Issa

Climate change is increasingly shaping public health risks in Malawi. Recognizing the link between climate and health, an important step towards strengthening climate-informed health preparedness was taken on 7 May 2026 in Dowa, through the inaugural meeting of the Health Early Warning and Response System (HEWARS) Task Team.

Participants pose for a group photo during the inaugural HEWARS Task Team meeting held at Thope Lodge in Mponela, Dowa

The meeting brought together representatives from the Ministry of Health and Sanitation, the Department of Climate Change and Meteorological Services, the World Health Organization, Save the Children International, academia and other stakeholders involved in climate and health programming.

Convened under the Malawi Green Climate Fund Project, "Climate Resilient Health and Well-being for Rural Communities in Southern Malawi," the meeting focused on establishing and operationalising an Early Warning Alert and Response System for Climate Sensitive Diseases and Conditions, known as EWARS4CSDC.

Linking Climate Information and Public Health

As climate-related risks continue to affect communities, the need to connect weather and climate information with health surveillance and response systems has become increasingly important.

The HEWARS initiative aims to support this connection by strengthening early warning for climate-sensitive diseases and conditions.

During the meeting, stakeholders were introduced to the HEWARS/EWARS4CSDC initiative and reviewed the Terms of Reference for the Task Team, which were adopted subject to final editorial revisions.

The discussions also helped clarify institutional roles across the health and meteorology value chain.
The system will focus on climate-sensitive health risks, including malaria, cholera and diarrhoeal diseases, malnutrition and heat-related illnesses.

Participants emphasized the need for strong multi-sectoral coordination, integration of climate information into health surveillance systems, predictive analytics and effective information-sharing mechanisms.

DCCMS to Host the EWARS Server

One of the major technical decisions from the meeting was that DCCMS will host the primary EWARS server. Hosting the server at DCCMS is expected to strengthen the integration of climate information into health surveillance and early warning systems.

This arrangement also highlights the critical role of meteorological services in supporting preparedness and response beyond traditional weather forecasting.

A key outcome of the meeting was the development of an operational roadmap for EWARS4CSDC up to July 2026. The roadmap outlines several priority activities, including assessments of sentinel sites and DCCMS district offices, procurement of ICT equipment, server installation, harmonisation of malaria data systems and integration of EWARS with DHIS2.

Supporting Climate-Resilient Health Systems

Save the Children International also presented updates on the

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Malawi Green Climate Fund Project, which will run from 2025 to 2030 with a budget of USD 37 million, including co-financing.

The project focuses on climate adaptation and resilience, health, water, sanitation and hygiene, and improved nutrition in six districts in Southern Malawi: Balaka, Ntcheu, Machinga, Mangochi, Phalombe and Zomba.

The project aims to strengthen the climate resilience of the healthcare system and establish climate-informed health surveillance and early warning systems.

Next Steps for DCCMS

To sustain this momentum, DCCMS will coordinate with project partners regarding the hosting and installation of the EWARS server, participate in ICT assessments and technical integration activities, and facilitate assessment of ICT needs in DCCMS district offices.

The Department will also support the harmonisation and integration of climate and health data systems, and engage with Save the Children and the Ministry of Health and Sanitation regarding the establishment of an official DCCMS Desk Office for the Green Climate Fund Project.

By integrating weather and climate information into health surveillance, preparedness and response systems, DCCMS will play a critical role in helping the health sector better anticipate and respond to climate-related risks.

The HEWARS Task Team meeting marked an important milestone towards a climate-informed Health Early Warning and Response System in Malawi.

The agreed roadmap and technical arrangements provide a strong foundation for strengthening the resilience of Malawi's health sector to climate-related risks and disasters.

DCCMS Shares Malawi's Forecast Verification Experience at SWIOCOF-15a

Participants attending the 15th Southwest Indian Ocean Climate Outlook Forum held in Mauritius from 2 to 5 June 2026.

By James Pagona

The Department of Climate Change and Meteorological Services (DCCMS) participated in the 15th Southwest Indian Ocean Climate Outlook Forum (SWIOCOF-15a), held in Mauritius from 2 to 5 June 2026.

The forum brought together meteorological experts, climate scientists, disaster risk management practitioners and sector representatives from across the Southwest Indian Ocean region to strengthen regional collaboration in climate services.

The meeting was organised by the Indian Ocean Commission (IOC) under the HYDROMET Programme, with technical support from Météo-France La Réunion and support from the World Meteorological Organization (WMO), the Agence Française de Développement (AFD), the European Union and other regional partners. DCCMS participation was sponsored by WMO.

The theme of this year's forum, "Improving Climate Services to Protect the Future in the South-West Indian Ocean Region," highlighted the importance of delivering reliable, user-focused climate information to support sustainable development and disaster risk reduction.

Verifying Seasonal Climate Forecasts

A major highlight of the forum was the review and verification of seasonal climate forecasts issued for the 2025/2026 rainy season. Participating National Meteorological and Hydrological Services presented assessments comparing seasonal forecasts with observed rainfall in

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their respective countries. Representing Malawi, James Pagona, Principal Meteorologist at DCCMS, delivered a presentation titled "Verification of SEAFORDS Seasonal Rainfall Forecasts against Observed Rainfall over Malawi during the 2025/2026 Rainy Season."

The presentation evaluated the performance of seasonal rainfall forecasts over Malawi and contributed to regional discussions on improving forecast accuracy and climate service delivery.

Participants emphasized that routine forecast verification is essential for improving forecast quality, identifying strengths and weaknesses in prediction systems, and building public confidence in seasonal climate outlooks.

The forum also highlighted the importance of communicating verification results clearly to stakeholders to improve public understanding of forecast performance and support informed decision-making.

Advancing Seasonal Prediction and IBF

Beyond verification, the forum reviewed tropical cyclone forecasting during the 2025/2026 season and discussed the increasing use of climate drivers such as the El Niño–Southern Oscillation (ENSO), the Indian Ocean Dipole (IOD) and the Subtropical Indian Ocean Dipole (SIOD) in seasonal prediction.

Participants also discussed the growing adoption of Impact-Based Forecasting (IBF), which focuses on translating weather and climate forecasts into expected impacts and actionable guidance for disaster preparedness and early response.

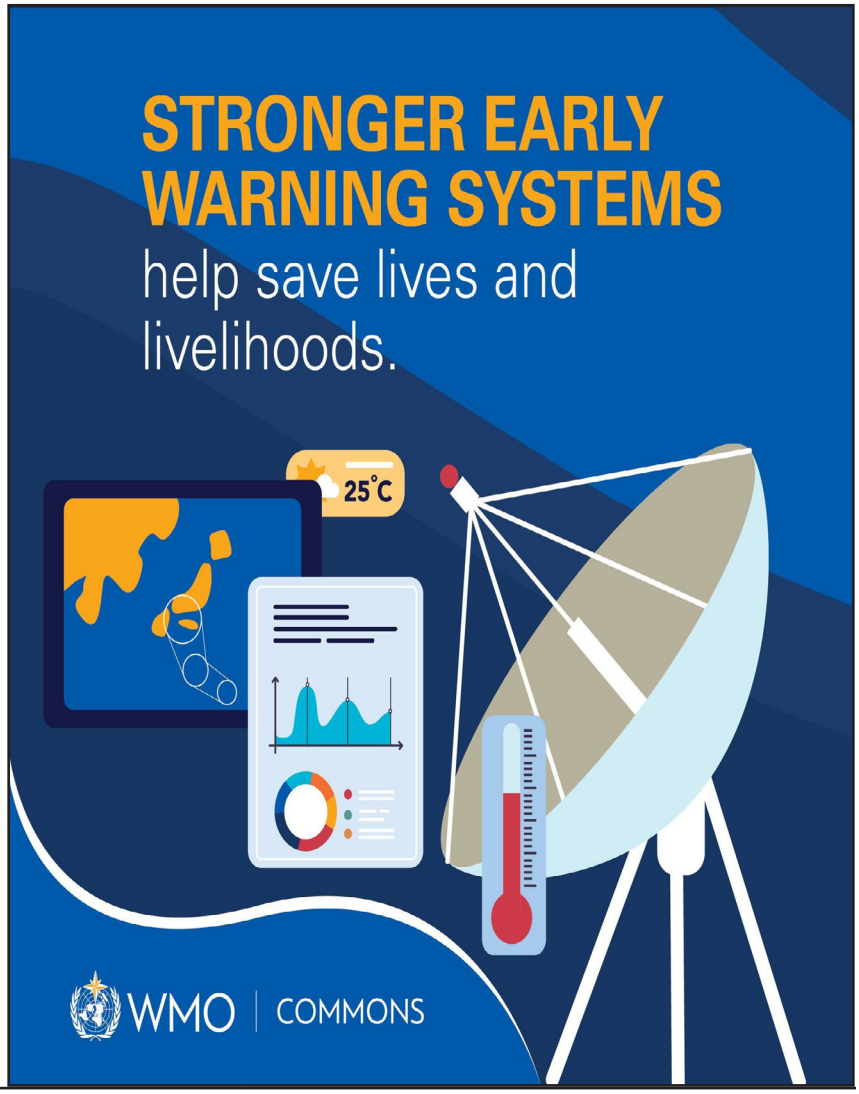
Cross-sectoral discussions brought together experts from agriculture, disaster risk reduction, fisheries, tourism and environmental management to identify user-specific climate information needs and strengthen coordination between meteorological services and climate-sensitive sectors.

The forum also reviewed regional climate information portals and explored opportunities to modernise digital platforms to improve access to weather and climate information.

Strengthening Climate Services in Malawi

For DCCMS, participation in SWIOCOF-15a provided useful lessons for strengthening seasonal forecast verification, advancing impact-based forecasting, expanding stakeholder engagement and improving climate information dissemination through modern digital platforms.

The forum reaffirmed the importance of regional cooperation in improving climate services across the Southwest Indian Ocean region. DCCMS remains committed to applying these regional insights to enhance forecast communication in Malawi and support evidence-based decision-making for



Malawi Steps Up Early Preparedness for Potential El Niño Impacts

By Charles Vanya and Mikaïla Issa

A cross-section of stakeholders at the El Niño Preparedness Meeting held in Lilongwe

Global updates from the World Meteorological Organization indicate that El Niño conditions are developing in the tropical eastern Pacific Ocean.

As sea surface temperatures become warmer in that region, global temperature and rainfall patterns may be influenced, increasing the risk of extreme weather over the coming months.

While some uncertainty remains regarding the exact timing and peak strength of the phenomenon, most international forecast models suggest that this event may be at least moderate and potentially strong.

Act Early, Act Together

Recognizing the need for early preparedness, the Government of Malawi has moved into a readiness phase ahead of the 2026/2027 rainfall season. On 16 June 2026, an El Niño Preparedness Stakeholders' Meeting was convened at the Bingu International Convention Centre in Lilongwe.

The meeting was organised and facilitated by the Department of Disaster Management Affairs and brought together representatives from government institutions, development partners, humanitarian organisations, academia and civil society organisations.

The engagement aimed to ensure that stakeholders understand the emerging weather outlook and identify early actions that can be taken before the onset of the rainy season.

DoDMA Commissioner Wilson Moleni emphasized that Malawi is in the readiness phase and that beginning the planning process in June is a deliberate step towards early intervention.

"We do not want to wait until September, when the rainy season is approaching, to begin planning. It is important that we start the process now so that we are adequately prepared," said Commissioner Moleni.

He added that the consultations will lead to the development of a 2026/2027 El Niño Preparedness Plan, which will outline interventions to be implemented before and during the next agricultural season.

Commissioner for DoDMA, Wilson Moleni, addresses participants during the El Niño Preparedness Meeting in Lilongwe.

Mapping Risk by Location

Speaking during the meeting, the Director of the Department of Climate Change and Meteorological Services, Dr Lucy Mtilatila, provided an update on the developing El Niño conditions and their possible implications for Malawi.

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Dr Lucy Mtilatila, Director of DCCMS, briefs stakeholders on developing El Niño conditions and their possible implications.

"El Niño has started developing in the eastern tropical Pacific and the temperatures are getting warmer. We are likely to receive below-normal rainfall. As a country, we need to start preparing now to mitigate the effects of El Niño," she said.

Dr Mtilatila noted that preliminary projections indicate a high likelihood of below-normal rainfall during the 2026/2027 rainy season, although a clearer picture will emerge once the seasonal forecast has been finalised.

She further warned that when below-normal rainfall occurs alongside high temperatures, the impacts on sectors such as agriculture and water resources can be significant.

Transforming Weather Data into Sectoral Action

To support preparedness, DCCMS is working with sector leads to translate weather and climate information into practical action.

Deputy Director of DCCMS, Charles Vanya, appealed to people across the country, particularly smallholder farmers, to begin adjusting their agricultural plans.

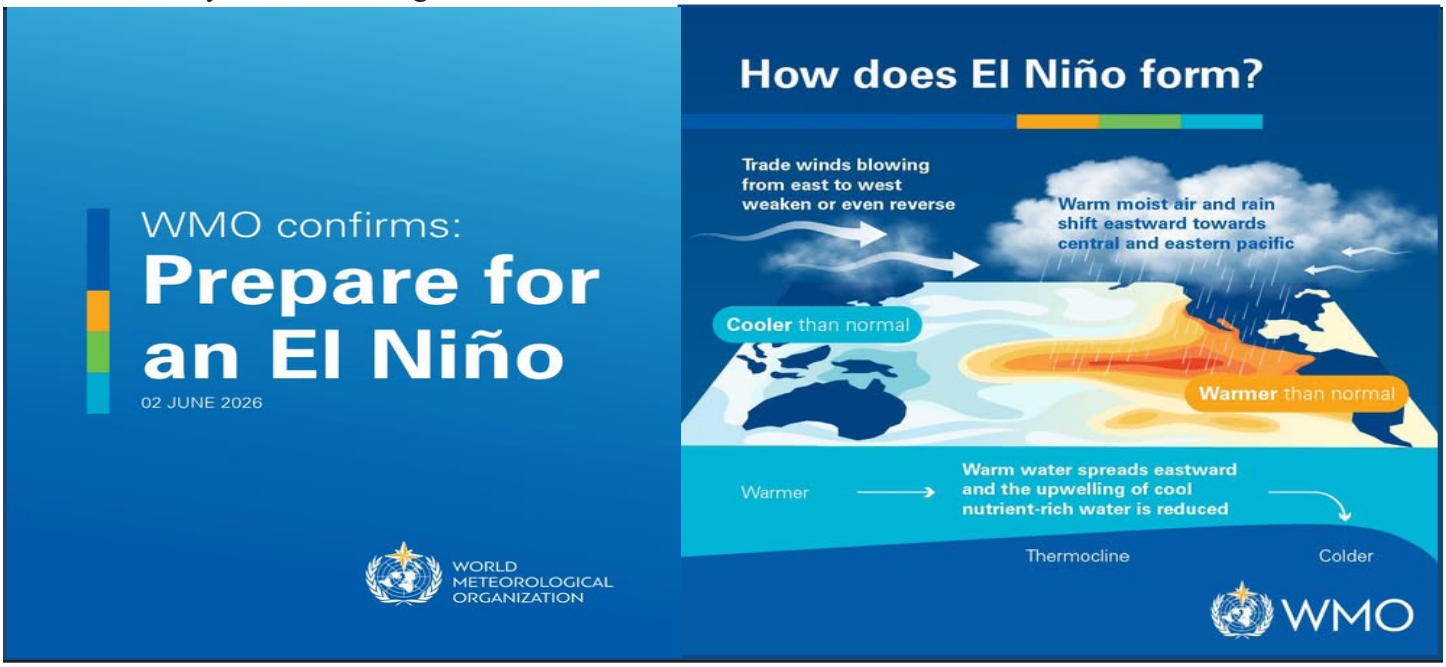
Because early dry spells can delay successful crop planting, while late-season extreme rainfall can affect mature crops within short periods, farming decisions need to be guided by timely weather updates.

Vanya urged farmers to consider drought-tolerant crop varieties and to closely follow daily weather updates from DCCMS to help protect their livelihoods.

Dr Mtilatila also noted that Malawi is coming from a relatively productive agricultural season. This could help cushion some anticipated impacts, but only if appropriate preparedness measures are put in place before the rains begin.

As Commissioner Moleni observed, Malawi has recent experience with the impacts of El Niño. The 2023/2024 rainfall season brought prolonged dry spells, localised flooding, reduced agricultural production, water stress and increased humanitarian needs, underscoring the importance of early planning.

While current analysis draws on historical El Niño patterns, every season remains unique. DCCMS will release a comprehensive outlook for the 2026/2027 rainfall season in early September, incorporating additional regional and short-term climate factors that influence Malawi's rainfall.



Children Corner

Become a Weather Detective!

Weather is all around us. Every day, the sky, wind, clouds, rain and sunshine give us clues about what may happen next. In this Children Corner, we invite young readers to become **Weather Detectives** by observing the weather and learning how to stay safe.

Today's Weather Mission

Look outside and answer these questions:

1. Is the sky clear, cloudy or dark?
2. Is the wind calm, gentle or strong?
3. Can you see clouds building up?
4. Is it hot, cool or cold?
5. Do you hear thunder or see lightning?

Write down your answers in a small notebook. Do this for five days and see how the weather changes.

Weather Safety Tip

When you hear thunder, go indoors.

Lightning can strike even before heavy rain starts.

Stay away from open fields, isolated trees, water bodies and electrical appliances during storms.

Did You Know?

Meteorologists are scientists who study the weather. They use instruments, satellites, weather stations and computers to prepare forecasts that help people plan and stay safe.

Mini Activity: Make Your Own Rain Gauge

You will need:

- an empty plastic bottle
- a ruler
- a marker
- small stones
- help from an adult

1. Ask an adult to cut the top of the bottle.
2. Put small stones at the bottom so it does not fall over.
3. Mark measurements on the side using a ruler.
4. Place it outside in an open space when it rains. After the rain stops, check how much water collected inside.

Now you are measuring rainfall like a young weather observer!

Question of the Month

Why should people avoid crossing flooded roads or bridges?

Send your answer to your teacher, parent or community leader and discuss how children can help keep their families safe during the rainy season.

Remember:

Weather information helps us make better decisions. **Stay curious, stay informed and stay safe.**

Ask DCCMS!

Do you have a weather question? Ask us! Your question could be featured in our next issue.