MANDATE

To monitor, predict and provide information on weather and climate ,that would contribute towards the socio-economic development of the country.

MISSION

To provide reliable, responsive and high quality weather and climate services to meet national, regional and international obligations through timely dissemination of accurate and up to-date data and information for socio-economic development.

VISION

A Responsive Nation to Weather and Climate Change Impacts.

OUR MOTTO

Be wise, Be weather wise

FORECASTING AND OBSERVATION SERVICES

Department focuses on monitoring and predicting weather and climate across the country. It is staffed by qualified observers and forecasters who work tirelessly day and night to monitor and analyse the progression of weather systems.

Weather monitoring involves conducting surface observations and satellite observations. The current network of meteorological stations comprises 22 full meteorological stations and 21 subsidiary agrometeorological stations strategically located in the eight Agricultural Development Divisions (ADDs). The department also operates more than 100 automatic weather stations and over 700 rainfall stations in coordination with other government departments and private organizations.

The observed data from these stations feeds into models for weather analysis to understand current weather patterns and predict future weather conditions. The primary objective is to produce weather forecasts for early warning purposes, which is crucial for advising on natural disasters.

The Department produces various weather forecast products to fulfil this purpose as follows:

- Daily forecast bulletins.
- Terminal aerodrome forecasts
- Five day weather forecasts
- Agro-meteorological bulletin
- Severe weather warning
- Seasonal forecasts
- Tailor made forecast products for private sector on request



Meteorologist part of Tropical Cyclone Freddy monitoring.

CLIMATE SERVICES

The data from observations is archived and managed in software called CLIMSOFT. The data is used to produced different weather and climate products for different sectors as follows:

Agriculture

The department plays a crucial role in support of the following:

- National Early Warning Systems and Food Security among other things issuing the 10-day weather and agrometeorological bulletin during the rainy season, October through April.
- Crop weather insurance.
- Crop protection and management.
- Irrigation scheduling
- Climate Risk management.
- Championing of climate services for Agriculture such as the Participatory Integrated Climate Services for Agriculture (PICSA) through which a farmer makes decision on crops to grow, livestock to keep and livelihood to engage in based on climate and weather information.

Energy

Information for utilization of:

- Hydropower
- Wind Energy
- Solar Energy

Building and Construction Industry

- Road Construction
- Building Construction
- Installation of Plant

Retail

Weather information for marketing strategies

Academia

Historical records for research purposes

Fishing

Information for utilization of:

- Mwera Winds warnings and advisories
- Weather information for fishing strategies

Insurance

Information for utilization of Insurance claim settlement.

- Environment
- Climate change Information
- Legal
- Evidence in courts for weather related cases

Road and Railway Transport

- Weather information for road or railway line usage.
- Climate information for road and railway designs

CLIMATE CHANGE AND RESEARCH SERVICES

The department provide climate change services in terms of climate proofing. This is done by analysing and production of climate change projections and climate change scenarios. The analyses of past climate, present climate and the future climate up to 2100.

The department conducts researches to improve its service delivery. It also conducts researches in collaboration and in support of other sectors like Agriculture, Energy, Transport, Disaster Risk and Management and Academics.

AVIATION WEATHER SERVICES

The objective of meteorological service for international air navigation as stipulated under World Meteorological organisation and International Civil Aviation Organisation (WMO/ICAO) standards is to contribute towards the safety, regularity and efficiency of international air navigation.

The products under aviation weather services are:

- Aircraft take-off and landing information
 Through hourly issuance of aerodrome
 routine meteorological report (METAR) and
 occasional special reports (SPECI)
- Aircraft route forecast
- Terminal Aerodrome Forecast (TAF)
- Alerts and warnings of severe weather phenomena such as aerodrome warning, AIRMET for small low level aircrafts and SIGMETS are issued for hazardous phenomena such as thunderstorms, low visibility, turbulence Icing and wind shear.

ENGINEERING AND COMMUNICATION SERVICES

The department is responsible for meteorological instruments and equipment observation, recommendation, testing, system configuration, installation, fencing, calibration and maintenance.



network of 120 automatic weather stations, 2 lakebuoys, 8 lightening detecting sensors on top of equipment and instruments of 21 main meteorological stations.

The department manages a

Lakebuoy over lake malawi.

For further information contact:
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