

# **REPORT ON TROPICAL CYCLONES IN KENYA**



BY

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# LOCATION AND BACKGROUND OF KENYA

- The Republic of Kenya is located in Eastern Africa with land area, the latitude and longitude of Kenya covers an area of 582,650 sq km.
- Kenya has two rainy seasons in March-May (MAM) and October-December (OND) with western Kenya and Coastal regions having a third rainfall peak during June-August(JJA).
- The weather is controlled by the subtropical high pressure systems, monsoon winds, ITCZ, the easterly waves, El Nino Southern Oscillation(ENSO), Indian Ocean Dipole(IOD) and Tropical cyclones.
- Mesoscale features include the Congo air mass and the effect of Lake Victoria.

# GEOGRAPHICAL POSITION OF KENYA IN AFRICA



# Services offered

- Provide meteorological and climatological services to agriculture, forestry, water resources management, civil aviation and the private sector including industry, commerce and public utilities for the better exploitation and utilization of natural resources for national development;
- Provide meteorological services to shipping in the western Indian Ocean including the issuing of cyclone warnings for the safety of merchant and other ships;
- Provide meteorological services to military aviation for the safety of the Kenya Air Force aircraft for national defence;

# Products

- Prepares the short range, medium range and the seasonal forecasts and also monitors severe weather such as heavy rainfall, strong winds. run the numerical weather prediction models to improve on the short and medium range forecast.
- The synergie software is used for preparation of the forecast. The forecast are used in addition to the weather forecast from the United Kingdom meteorological office (UK Met Office), United States National Oceanic Atmosphere Administration (NOAA), European centre for Medium Range Weather forecast (ECMWF), Centre for Tropical cyclone Information.
- Tropical cyclones in Kenya are considered to be of low to medium risk. This is mainly due to the geographical location of the country being astride the equator. But the occurrence of the tropical cyclones can have a big impact on the weather of the region.

# Review of recent tropical cyclones

- Idai, which was categorized as strongest during the season formed on 4<sup>th</sup> April 2019 and dissipated on 21<sup>st</sup> April 2019, leading to the delay of the March-May rainfall season and this affected many large scale and small scale farmers negatively.
- While tropical cyclone Kenneth, which formed on 21<sup>st</sup> April 2019 and dissipated on 29<sup>th</sup> April 2019, resulted into an incursion of moisture into our region resulting in heavy rainfall which lasted from 13<sup>th</sup> to 18<sup>th</sup> of April leading to flooding and landslides in some areas.

# Impacts

- There was delayed onset of rainfall over most parts of the Kenya during the season of March-May 2019 which caused a lot of panic among farmers across the country.
- Due to delayed rains in pastoral areas incidences of human conflict was reported due scarcity of water for human and animal use;
- Heavy rainfall leading to landslides and flooding. This come along with cases of human displacement, water-borne diseases and destruction of property and livestock.

# Coordination with emergency managers

- Issue warnings for heavy rainfall, floods and strong winds through national broadcasting service and the community radio broadcasting RANET located in areas prone to flood and landslides.
- The Kenya Red Cross Society, UN agencies, NGOs partners and the National governments to provide necessary assistance and support to those most severely impacted by the floods.
- Health organisations through the Ministry of Health for health interventions and support for provision of cholera rapid diagnostic test kits, cholera kits, equipment and supplies for managing cholera treatment centres, and mapping of cholera and malaria hotspots to enhance management.











