United Republic of Tanzania TANZANIA METEOROLOGICAL AGENCY MONITORING OF TROPICAL CYCLONES IN TANZANIA NOVEMBER 2019 St. Denis Reunion

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> > 150 900





WHERE ARE WE (TANZANIA)



CLIMATE OF DODOMA, TANZANIA

- Semi arid climate
- Warm temperature throughout the year
- Average of 500mm of precipitation during rain season
- Wet season from November to April, other time comprises with dry season.



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SERVICES PROVIDED (FORECASTING)

1540-5400

- 24 hrs
- 5 days
- 10days
- 30 days
- Season forecasting
- Aerodrome warning etc.



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RAINFALL REGIMES

- The unimodal:
- Central,
- South western Highlands and
- Western
- The bimodal:
- Coastal
- Zanzibar islands and other parts of our country



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FACTORS AFFECTING WEATHER

ITCZ

- High pressure systems
- Monsoon winds
- TC position, intensity and direction
- Congo basin air mass Local conditions, water mass & topography



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CRITERIA FOR AERODROME WARNING

- Obtain briefing of current weather situation of development of CB, Tropical cyclone etc. from Observer from Observer or forecaster on duty.
- Study actual weather information from Satellite images and Radar data.
- Study different NWP models and general weather forecast
- If step 1 to 3 is significant issue and disseminate Aerodrome warning accordingly
- Continuous monitoring the weather
- Cancelling the Aerodrome warning

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AERODROME WARNING

1540-5400

- Tropical cyclones
- Thunderstorms
- Hail
- Sandstorm
- Dust storm
- Strong wind surface
- Volcanic Ash
- Rising sand or dust etc



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SITIVE IMPACTS OF TROPICAL CYCLON

- Sometimes the winds that are associated with Tropical Cyclones bring heavy to moderate rainfall that favored agriculture sector by provision of optimum rainfall and enough pasture and water for our animals an wild life.
- These rainfall has an impact on fishing industry.



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GATIVE IMPACTS OF TROPICAL CYCLO

- Due to heavy rainfall sometimes can causes:
- Floods affect settlements, infrastructure like roads, railways, bridges, power, farming systems.
- Spread of waterborne diseases like malaria.
- Fishermen and students are limited on their daily activities.
 - Communication systems.



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ONITORING OF TROPICAL CYCLONES

- C bulletin from RSMC La Reunion
- Satellite imagery
- Radar
- Synergie

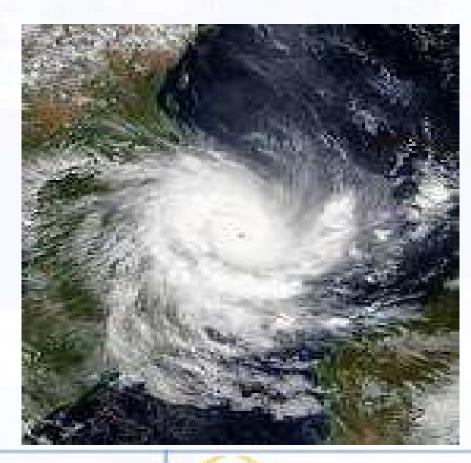


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TROPICAL CYCLONE- KENNETH



1540-900



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NITORING OF TROPICAL CYCLONE-KENNE

- 21st of April 2019:
- The deep cloud band rotating around the location near north east of Madagascar.
- Located west of 60 degrees East and near 9 degrees South
- NWP Models estimated the central pressure at around 1006hPa.



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- 22nd of April 2019:
- We received a bulletin from Meteo-France La Reunion (RSMS MFR) mentioning it to be located near 9.10S/51.50E Central pressure of 1006hPa
- Maximum wind 25kt.



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- 23rd of April 2019:
- The system was given a name KENNETH
- According to RSMC MFR it was located at around 10.3S/49.6E.
- The central pressure was 998hPa
- Maximum wind was 35kt
- It was estimated to move towards the west at 8kt



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24th of April 2019 Position at 09z: 11s/45.2E Movement: west at 10kt Maximum wind : 65kt Central Pressure: 982hPa



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25TH of April 2019 Position at 09z:11.9S/41.3 E Movement: west-south at 10kt Maximum wind: 115kt Central Pressure: 934hPa



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- 26th of April 2019
- Position: 12.4S/39.6E (Overland depression over Mozambique)
- Movement: west at 5kt
- Maximum wind: 35kt
- Central Pressure: 995hpa



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- he first information to National Disaster Management Office was issued on the 23rd of April 2019.
- he 1st information issued to Public was on the 22nd of April 019.
- MA system situation information issued on 21st of April 2019 he NDMO ground situation information issued on 24th of April 2019



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DISSEMINATION OF WARNING

- Providing impact based forecast
- Videos and sound clips which were uploaded on TMA websites and shared on social media
- TMA website
- Disaster management Department PMO
- TV, Radio, Newspapers
- Social Media (WhatsApp, YouTube, Facebook, tweeter and Instagram)



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ORMATION/WARNING ISSUED TO MED

- 22nd April 2019 information presentation by DG
- 23rd April 2019 information press presentation
- 24th April 2019 Warning press release (press conference and document) by DG
- 25th April 2019 Warning update press document by DG
- 26th April 2019 Warning cancellation press release (press conference and document)



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REACTION OF MEDIA

- Many of them visited and /or called the Authority to get more clarification
- False/uninformed information was also created by unknown people and circulated within the social media



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FORMATION/WARNING ISSUED TO NDMO

- 23rd April information on like hood of formation of TC were issued
- 24th April 2019 warning on severe Tropical storm development was issued.
- 25th April 2019 update of warning and prevailing development status of the storm (Tropical Cyclone) were issued.
- 26th April 2019 mid-day warning cancellation issued.
- 26th April 2019 the NDMO chief Executive Officer together with TMA's Director General conducted press conference to the public through media on information of the ground situation and cancellation of warning.



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PRODUCTS ISSUED BY TMA

- Press documents
- Video clips
- Live broadcasting through TV and radio stations.
- TMA's zonal office at Mtwara were sharing 30 min to hourly Meteorological data, the ground photo and other information



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SUMMARY

- Tropical cyclones named **KENNETH** is one of the Tropical Cyclone which came near our Country.
- The lowest central Pressure was 934hPa
- It was categorized as INTENSE TROPICAL CYCLONE near 11.9S/41.3E
- Near 10.3S/49.6E it was categorized as SEVERE TROPICAL STORM.
- KENNETH reached the maximum wind speed of 115kt, in Mtwara, the highest wind speed was 60kt.
- The highest rainfall amount recorded at Mtwara weather station was 10mm on 25th April 2019



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THANK YOU

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1540-900



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