

## **Assessment of Adequacy and Application of Meteorological Information in DRR in Urban Flooding in Tanzania: A Case Study of The Dar es Salaam City**

Urban Flooding in Tanzania is one of the leading disasters in Tanzania which leads to loss of people's life and properties. Consequently, reliable meteorological weather forecasts are necessary for flooding disaster risk management.

The Tanzania Meteorological Agency (TMA) is the national meteorological Institution mandated, among other things, to make flood forecasting and issue warnings to key stakeholders and local communities that are at risk. TMA has resources for basic weather forecasting, but lacks sufficient equipment for more detailed forecasting of other forms of extreme weather conditions apart from too much or too little rainfall. This study aimed at examining the adequacy of data provided by TMA for disaster risk reduction focusing on urban flooding in Dar es Salaam City, which was used as a case study.

The methodology used to accomplish the study included literature review, interviews and questionnaires which were conducted to individuals and institutional respondents in the city.

The study has established that TMA uses one meteorological station for spatial distribution and 15km resolution model for forecasting process, which lead to inaccurate end results of weather and flood forecasting. The meteorological data are more used by institution users compared to the general public who are most vulnerable to urban flooding. Users' perception, based on 90 individual and 24 institutional respondents, shows unsatisfied with the TMA meteorological information in terms of accuracy. They consider it as too general.

The study concluded TMA meteorological information on flood forecasting, is inadequate in DRR for urban flooding. It recommended that TMA uses tools with modern technology, like RADAR, model resolution of 5km and four stations spatial distribution over Dar es Salaam.

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