

Inkomati-Usuthu Water Management Area: Floods Monitoring (3 Day forecast)

Issue Date: 8 February 2023

1. Background

The Inkomati Usuthu Catchment Management Agency (IUCMA) is the water resource management authority established in terms of Section 78 of the National Water Act (Act 36 of 1998) (NWA). The IUCMA is also responsible for local water resources planning and operation of water resources within the Water Management Area.

2. IUCMA Early Warning System and Rainfall Watch

The IUCMA early warning system is designed to support the implementation of the flood, drought and pollution disaster protocols. It is based on a disaster incident classification scheme for floods and droughts according to interpretations (by an operator/operators) and scoring of a wide range of indicators (weather forecasts, stream flow, dam levels, river water levels, formation of cyclones, vegetation condition, etc.).

3. Hydronet Rainfall Watch 8 - 10 February 2023

The Hydronet 3-days forecast indicates rainfall ranges between 0 – 144.5 mm. The highest rainfall is predicted for Crocodile Catchment, Upper Usuthu catchment, and Upper Komati Catchment.

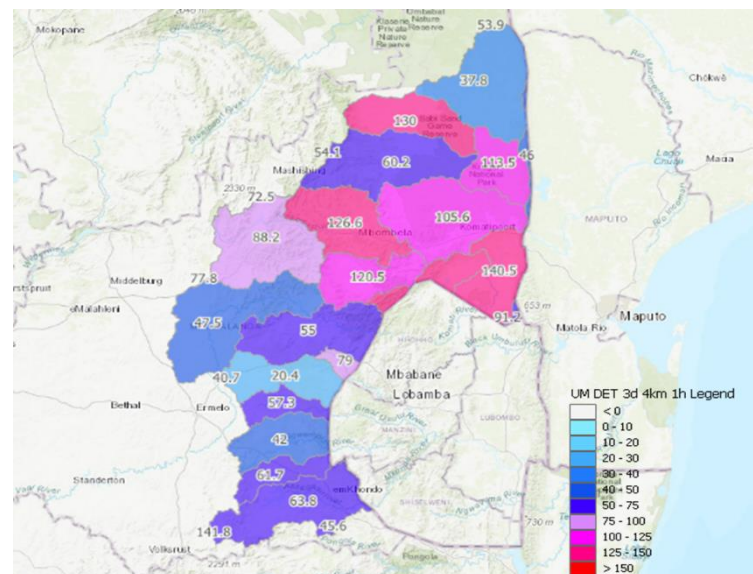
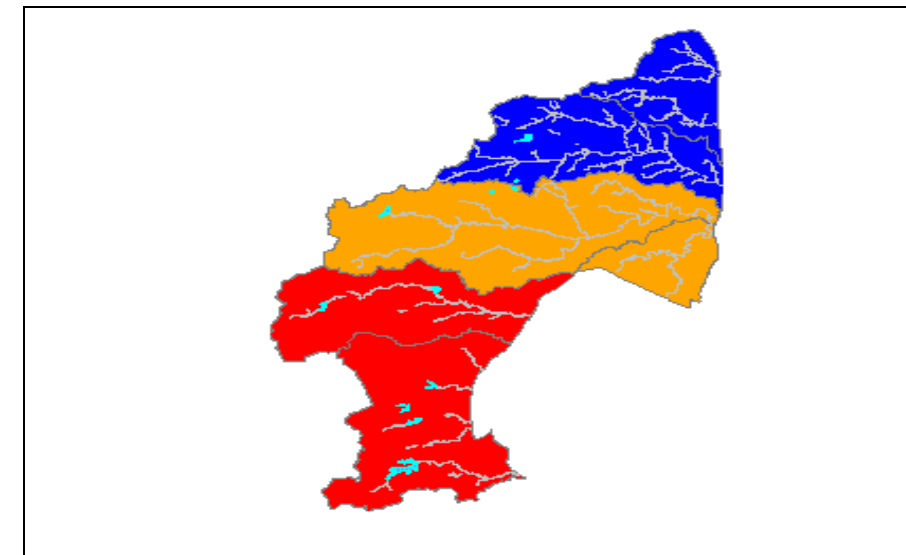


Figure 1: Rainfall forecast 3-days

4. IUCMA Early Warning System Forecast Results (3 day forecast)

The IUCMA early flood warning system indicates moderate flooding for Upper Usuthu, Upper Komati, and Lower Komati Catchments. This mainly because all the major dams are full, and heavy rainfall is forecasted for the next 48 hours (8-9 February 2023). The Crocodile and Lower Komati Catchment are on moderate flooding, while the Upper Komati and Usuthu Catchment are on severe flooding.



N'wanetsi - (Flood Watch): KNP
 Sabie-Sand - (Flood Watch): Bushbuckridge, Sabie and Hazyview
 Crocodile - (Moderate Flooding): Nelspruit, Malelane, and Komatipoort
 Upper Komati - (Severe Flooding): Caroline, Elukwatini, and Badplaas
 Lower Komati - (Moderate Flooding): Nkomazi Area
 Upper Usuthu - (Severe Flooding): Amsterdam, and Mkhondo

Figure 2: IUCMA Early Warning System

1. Summary

The Hydronet rainfall watch predict 0 – 140.5 mm rainfall across in the Inkomati Usuthu WMA. Significant increase in riverflow level is forecasted in the next 3 days. Severe Flooding for the towns of Mkhondo, Amsterdam, Caroline, Elukwatini, and Badplaas. The Lower Komati Rivers are expected to have high river flow levels due to high spills from upstream dams.

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