

Comprehensive Weather & River Basin Update for Tana and Athi Residents

Period of Focus: Upcoming Week (24 Nov - 01 Dec 2025)

1. 7-Day Cumulative Rainfall Forecast (24 Nov - 01 Dec 2025)

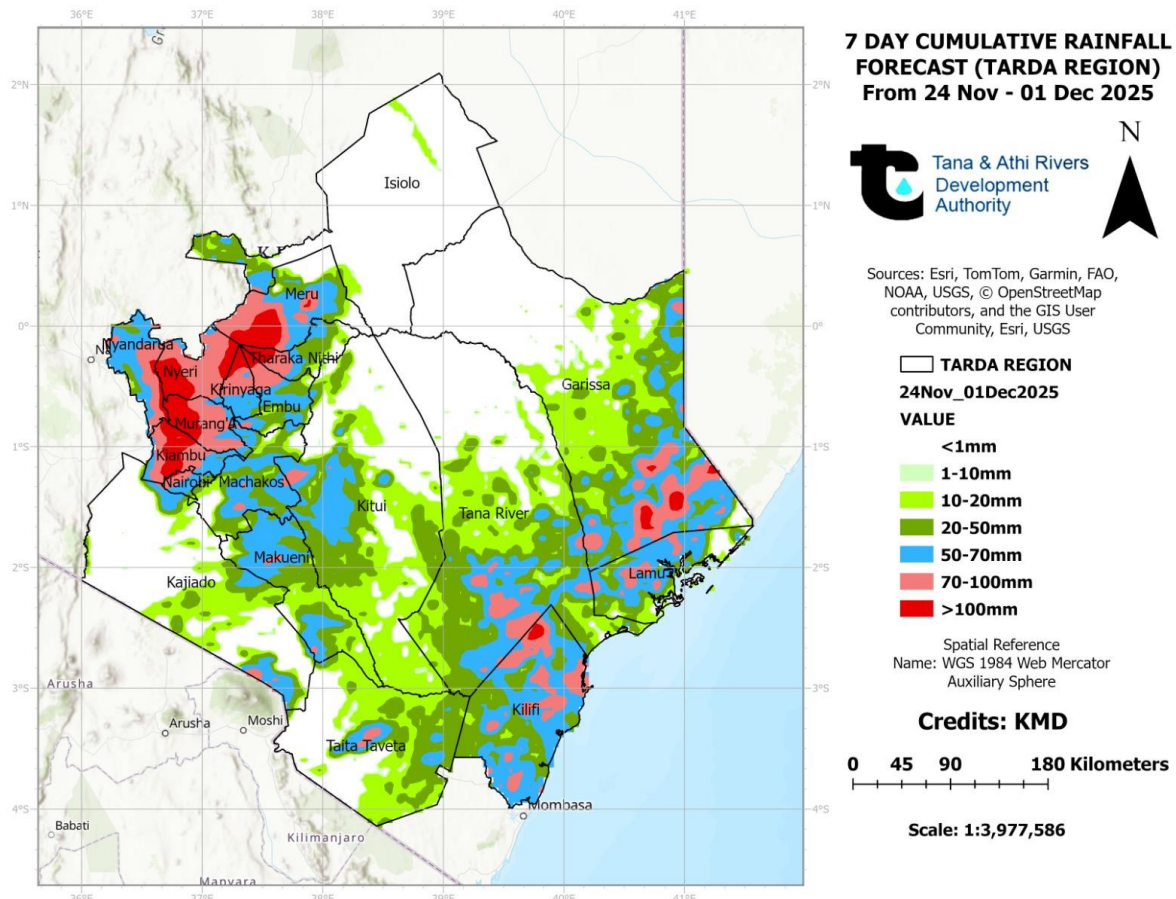


Figure 1: Seven-day cumulative rainfall forecast for the Tana River Basin (24 November - 01 December 2025), showing expected rainfall accumulation across the TARDA region. Source: Kenya Meteorological Department.

The forecast from the Kenya Meteorological Department indicates a significant rainfall event is expected across the Tana River Basin in the coming week.

- Upper Tana Catchment (Around Mt. Kenya & Aberdares): Expect moderate to very heavy rainfall, with accumulations between 50mm and over 100mm. This area includes the crucial watershed that feeds the major dams in the Seven Forks Cascade (Masinga, Kiambere, etc.).
- Middle Tana Catchment Regions: Areas downstream of the dams towards Garissa will experience moderate rainfall, with amounts between 20mm and 50mm.

- Lower Tana & Garissa Area: Lighter rainfall is forecast, generally between 1mm and 20mm. Coastal areas and parts of the lower Tana show pockets of heavier rain too.

What this means:

- Residents in the Upper Catchment: Prepare for sustained heavy rain. This increases the risk of localized flash flooding, soil erosion, and difficult travel conditions on dirt roads.
- Residents in the Middle and Lower Reaches (including Garissa): While rainfall will be less intense directly over you, the heavy rains upstream will lead to a significant increase in river levels with a time lag of 2-4 days.

2. Dam Status and Spillover Risk Analysis

The heavy forecasted rain will directly impact the water levels in the major reservoirs. Here are the status and projected trend for Masinga and Kiambere Dams.

Masinga Dam Analysis

- Current Status (as of 23rd Nov): The water level has been fluctuating around 1054.87 meters (MSL). It showed a steady rise in the first half of the month but has slightly declined recently.
- Spillover Risk: MODERATE TO HIGH. The dam level is already high. The forecasted intense rainfall (50-100mm+) in its direct catchment area will cause a sharp rise in inflows. While the current level is below the spill level, the massive incoming volume of water is expected to cause a rapid increase in the reservoir level, making spillover a distinct possibility within the forecast period.

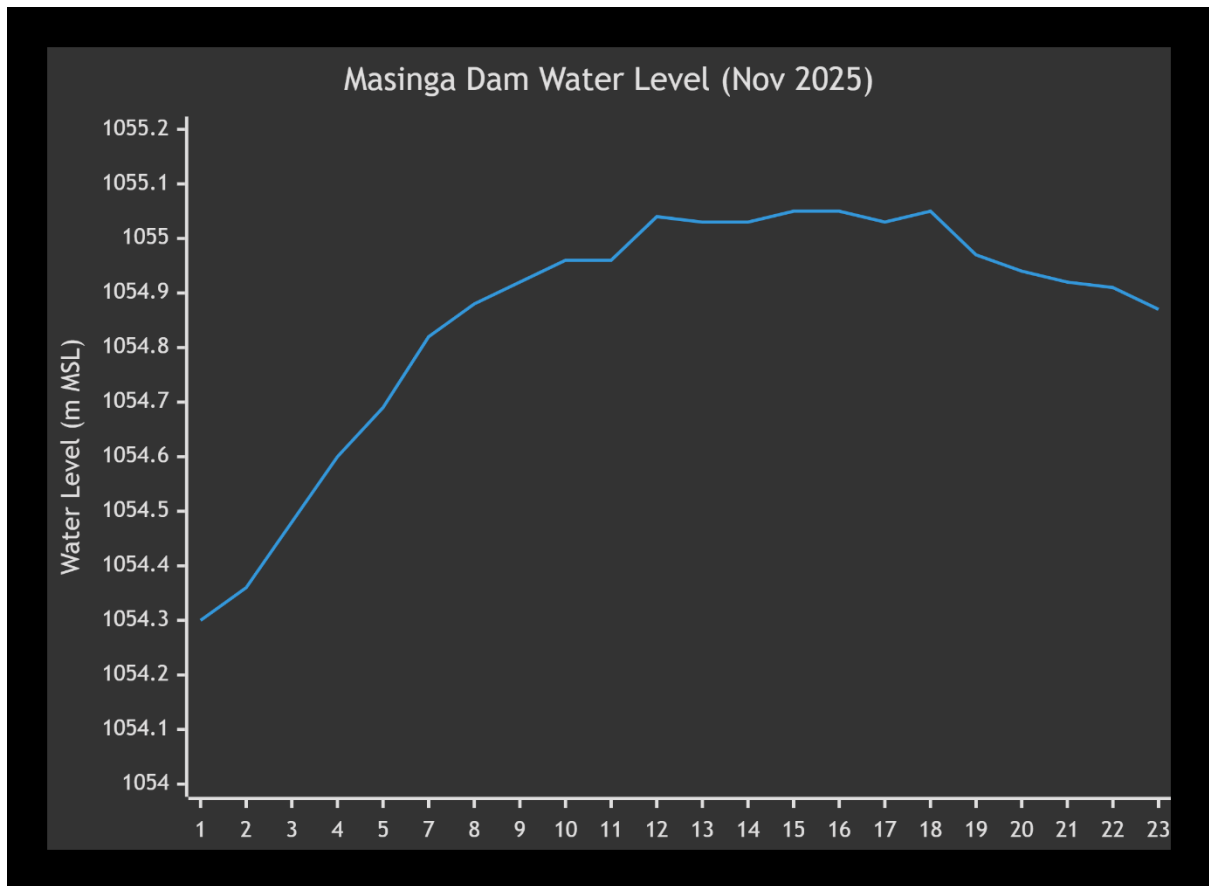


Figure 2: Masinga Dam Water Level (Nov 2025)

Kiambere Dam Analysis

- Current Status (as of 23rd Nov): The water level is at 697.71 meters and has begun a steady rising trend in the last few days.
- Spillover Risk: LOW TO MODERATE. Kiambere's level is lower relative to its capacity compared to Masinga. It will also receive significant inflows from both local rainfall and the overflow from upstream dams like Masinga. While an immediate spill is less likely than Masinga, the combined effect will lead to a substantial and rapid rise in its water level throughout the week.

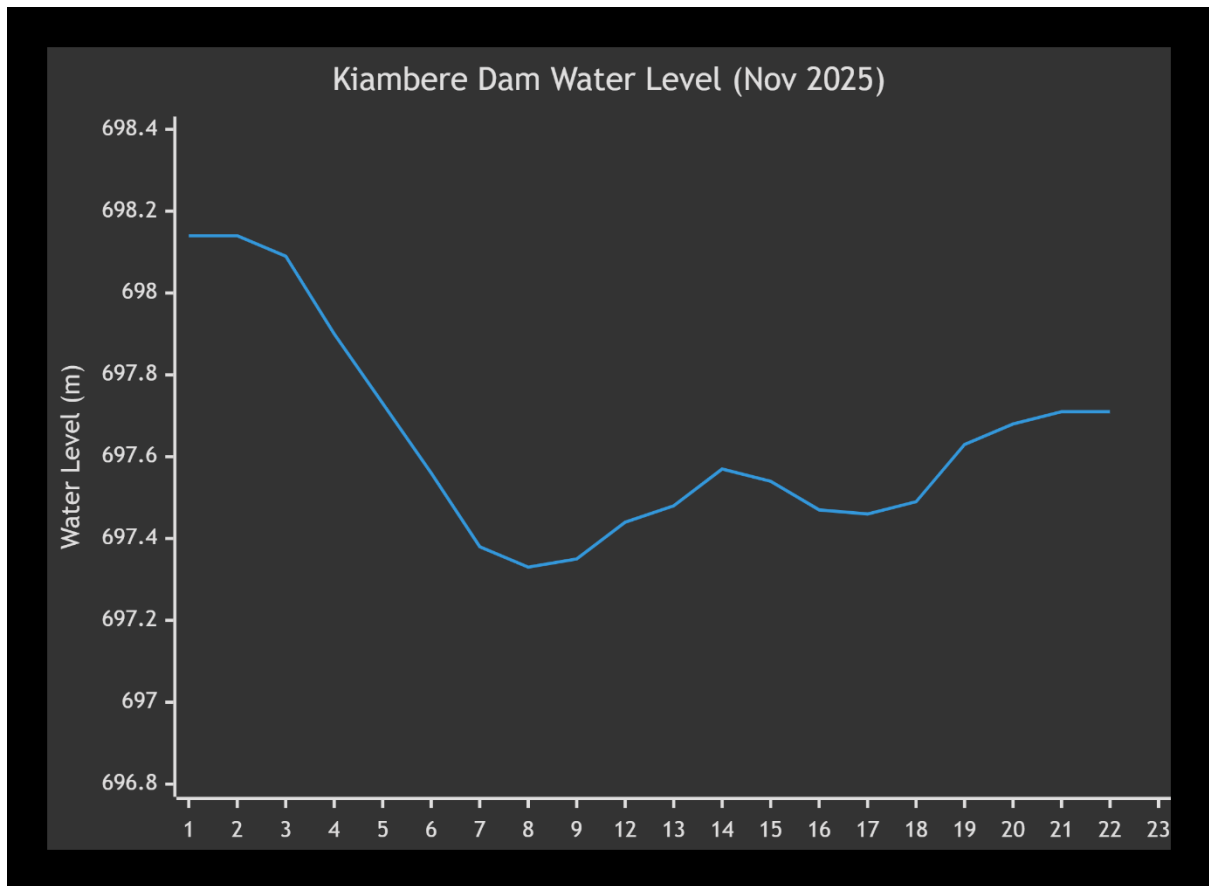


Figure 3: Graph: Kiambere Dam Water Level (Nov 2025)

3. Garissa Bridge Water Level Alert

- **Current Status:** The water level at Garissa has been relatively low and stable, around 2.3 - 2.4 meters in the last recorded data.
- **Flood Risk Outlook:** MEDIUM with a Time Lag. The heavy rainfall upstream and the potential spillover from Masinga Dam will result in some flood waves moving down the Tana River. Residents in Garissa and all communities along the riverside should anticipate a significant rise in the river level starting around November 27th. This could lead to riverside flooding and may approach levels that affect infrastructure and riverside farms.

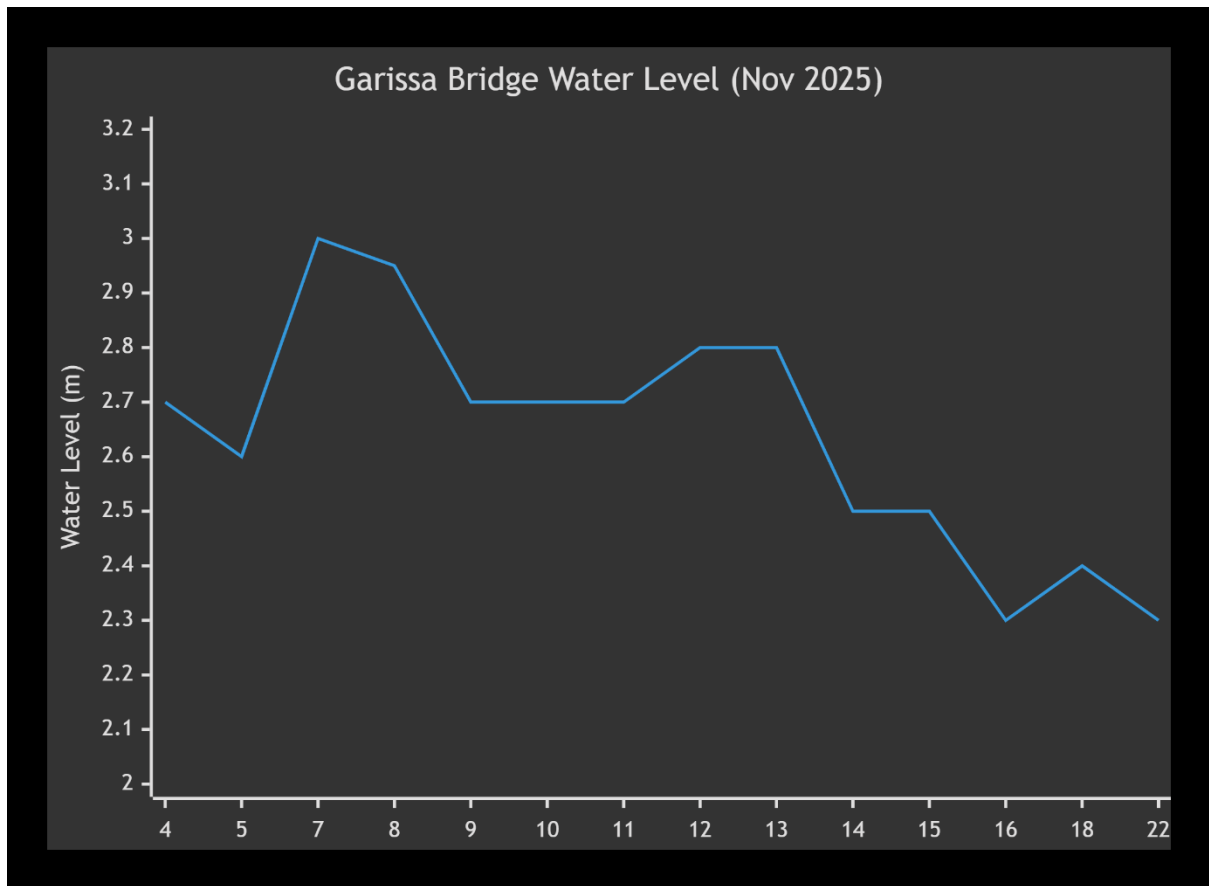


Figure 4: Graph: Garissa Bridge Water Level (Nov 2025)

Summary of Key Messages for Residents:

1. Upper catchment residents (Nyeri, Kirinyaga, Murang'a, Kiambu uplands): Expect heavy showers and localized intense storms. If you live near small rivers/streams or on slopes, watch for flash runoff and mud/rock flows. Avoid crossing small streams if flowing or muddy.
2. Communities downstream of Masinga and Kiambere (Tana River corridor): Inflows to dams are likely to increase. If the dams begin to discharge spillway flows, expect higher river levels and faster currents in the Tana River, particularly in Garsen, Hola, and the Tana Delta in the days after peak rainfall.
3. Athi basin / Nairobi/Kajiado/Kitui lowlands and flood-prone areas: Localized heavy rain may cause urban and river flooding; be cautious in low-lying parts of Athi and downstream channels.
4. Garissa and Lower Basin Residents: Prepare for rising water levels, which are expected to peak towards the end of the week and into the weekend. Avoid crossing during peak flows.