



Monthly Hydrological

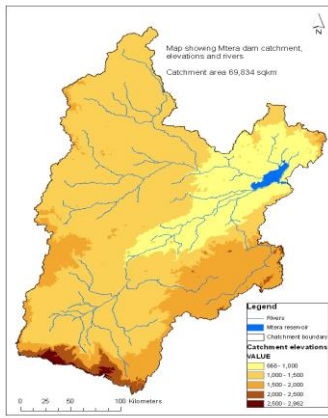
Bulletin Report (Mtera Dam)

February (2026)

1 Summary of water status

The Mtera Dam receives water from three main rivers: the Great Ruaha, Little Ruaha, and Kizigo. These rivers are part of the Great Ruaha Catchment, which is vital for hydropower generation, farming, domestic use, and environmental sustainability. The average inflows rose from **28.5 m³/s in January to 68.0 m³/s in February**, representing a rise of about **139%**. This is mainly due to higher/increase of rainfall in the upstream catchments.

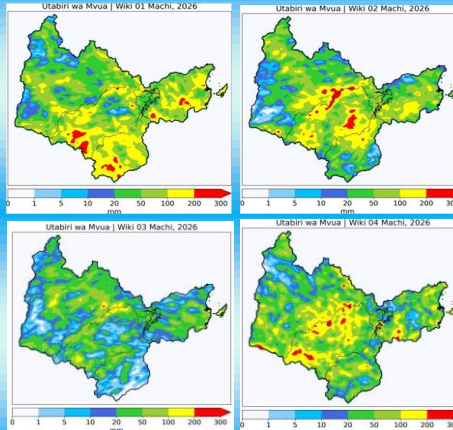
This rise in inflows helped raise reservoir levels, supporting hydropower generation. The Kizigo River contributed much more water flows than usual, while the Great Ruaha was lower than normal and the Little Ruaha was close to average. Forecasts from the Tanzania Meteorological Authority (TMA) show **average to above-average rainfall in March**, and projections suggest the reservoir could reach **696.00 m.a.m.s.l. by 31 March 2026**, making careful monitoring and management essential.



2 Weather Situation

Weather Summary – February 2026: Records from weather stations show that rainfall in some parts of the catchments was **average to above average** during February 2026. This rainfall pattern had a clear impact on river flows across the basin. It raised water levels in the rivers and contributed to changes in the overall water situation.

Weather Outlook – March 2026: During March 2026, many areas of the Rufiji Basin are expected to receive above-average rainfall. Figure 1 above present the forecasted weekly distribution of rainfall across the Rufiji Basin for the entire month of March 2026, as issued by the Tanzania Meteorological Authority (TMA).



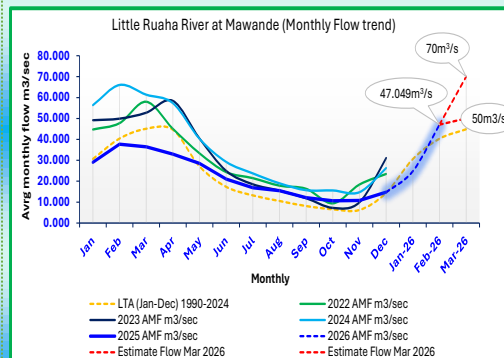
3 River flow Situation

During February 2026, the average inflow from the three main rivers entering the Mtera Reservoir increased significantly compared to the previous month. Discharge rose from **28.5 m³/s in January to 68.0 m³/s in February**, representing about a **139% increase**. This rise was mainly driven by higher rainfall across the upstream catchments, with the **Kizigo River contributing the largest share of the increase**, while the Great Ruaha remained notably lower than its long-term average and the Little Ruaha stayed close to average.

S/N	Stations Code	River	Avg Flow Cumecs (Feb) 2026	LTA Cumecs 2000-2025 (Feb)	Remarks
1	1KA59	Great Ruaha at Msembe	31,467	142.2	Notable lower
2	1KA31	Little Ruaha at Mawande	47,049	40	Average
3	1KA42A	Kizigo at Chinugulu	125,067	67	Notable High

Hydrological Implications

Hydropower Generation: With inflows rising from 28.5 m³/s in January to 68.0 m³/s in February, the reservoir stored more water. This provides better conditions for hydropower generation, as turbines can operate more efficiently. The increase supports stable electricity production and reduces the risk of power shortages.



4 Reservoir Water Levels

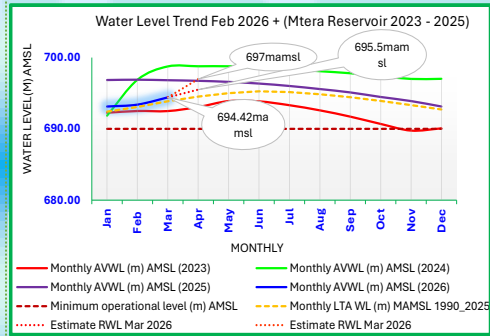
During February 2026, the Mtera Reservoir continued to receive sustained inflows from the upstream catchments. Water levels rose from **693.40 m.a.m.s.l. on 31 January 2026 to 694.40 m.a.m.s.l. on 28 February 2026**. This represents an increase of **1.00 m** relative to the January level.

Analysis

- **Upstream inflows:** Ongoing rainfall across the three contributing catchments has maintained positive inflow trends.
- **Storage implications:** Even a small percentage increase translates into substantial volumetric gains, strengthening water security for hydropower generation and downstream regulation.

March 2026 Outlook

By 31 March 2026, the reservoir level is projected to reach **696.00 m.a.m.s.l.**, a cumulative rise of **2.60 m** from January. Sustained rainfall across the upstream catchments is expected to support this upward trend.



5 Recommendations

Proper water use and protection of water sources remain essential during the rainy season, as current inflows will support hydropower generation in the dry months. Continuous monitoring of reservoir inflows is critical for flood control and early warnings in order to safeguard infrastructure and downstream communities.