



Monthly Hydrological

Bulletin Report (JNHPP)

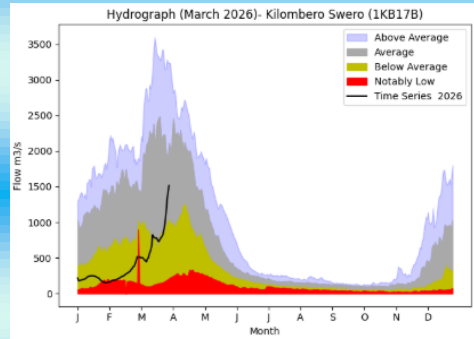
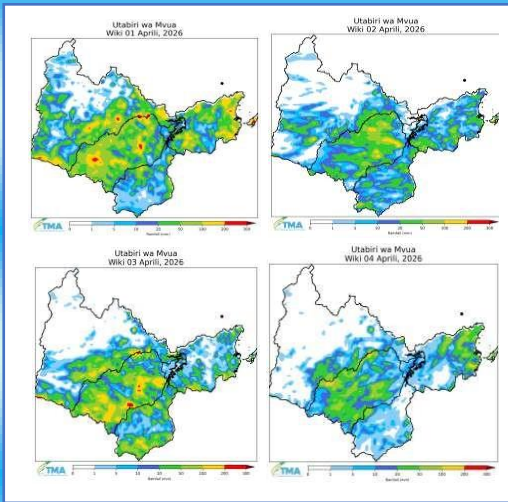
March (2026)

1 Summary of water status

The Rufiji Basin continues to experience improved flow conditions, driven by steady rainfall across upstream catchments. Records from weather stations show that rainfall during March 2026 was average to above average, which increased river flows, raised reservoir levels, and strengthened hydropower generation.

Inflows from the Great Ruaha, Kilombero, and Luwegu Rivers rose significantly, with average discharge increasing from 817.53 m³/s in February to 1631.09 m³/s in March a rise of about 99.5%. Reservoir levels at JNHPP also climbed from 175.4 m.a.m.s.l. at the end of February to 178.95 m.a.m.s.l. by the end of March, reflecting a gain of 3.48 m.

With rainfall expected to continue into April, reservoir levels are likely to rise further, reaching about 184.00 m.a.m.s.l. which is the maximum reservoir operation level. To keep the dam safe and protect downstream area, controlled releases of water will be necessary.



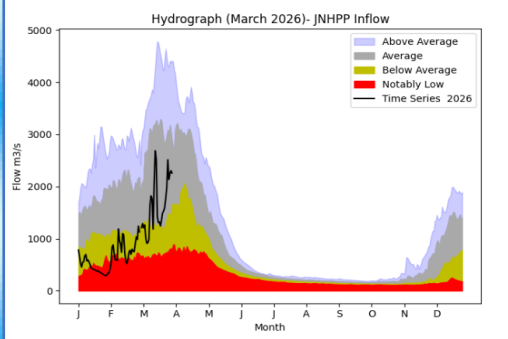
3 River flow Situation

During March 2026, river flows from the three main catchments — **Great Ruaha, Kilombero, and Luwegu** — that **contribute to** the JNHPP Reservoir continued to **increase** compared to the previous month. Average discharge rose from **817.53m³/s in February to 1631.09m³/s in March**, representing about an **99.5 % rise**. This increase was **largely influenced by continuous rainfall** across the upstream catchments, which has contributed to the improvement of reservoir water levels and enhanced stability for hydropower generation.

Below Table 1: Monthly Average Flow (MAF) (Mar 2026) Compared with Historical Maximums (2000–2025).

S/N	Station Code	River	MAF Cumecs (Mar) 2026	LTA MAF Cumecs 2000-2025 (Mar)	Remarks
1	1KA3B	Great Ruaha at Msolwa	286.90	246.75	Average
2	1KB17	Kilombero at Swero	751.72	712	Average
3	1K3C	Luwegu at Mbarangandu	557.26	505	Average

River flow Outlook — April 2026
 Rainfall across the Rufiji catchments is expected to remain near average, according to TMA. The first week will bring rain in many areas, followed by rainfall in some of the areas during the second and third weeks, and only a few areas receiving rain in the fourth week. This pattern ensures continued river flows, keeping conditions above average.

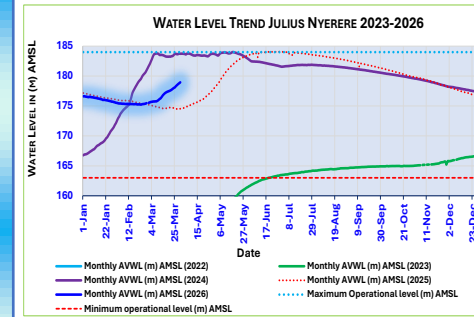


4 Reservoir Water Levels

During March 2026, the JNHPP Reservoir continued to receive steady inflows from the upstream catchments. Water levels rose from **175.4 m.a.m.s.l. on 28 February 2026 to 178.95 m.a.m.s.l. on 30 March 2026**, representing a rise of about **3.48 m**.

- 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, reinforcing water security for hydropower generation and downstream regulation.

April 2026 Outlook
 By 30 April 2026, the reservoir level is projected to rise above 184.00 m.a.m.s.l., a cumulative increase of 5 m from 178.95 reached at march 2026.



2 Weather Situation

Weather Summary – March 2026:
 Records from weather stations show that rainfall in many parts of the Rufiji Basin catchments was **average to above average during March 2026**. This rainfall pattern increased river flows across the basin, raised water levels, and contributed to changes in the overall water situation.

Weather Outlook – April 2026:
 Rainfall is expected to continue across the Rufiji Basin during April 2026, as issued by the Tanzania Meteorological Authority (TMA). The first week will bring rain in many areas, followed by some rainfall in the second and third weeks, and only a few areas receiving rain in the fourth week.

5 Recommendations

The water situation across the Rufiji Basin continues to improve, supported by steady rainfall and strong inflows from upstream catchments. Early precautions should be taken to reduce the risk of floods and safeguard communities and infrastructure. Projections show that the JNHPP Reservoir may reach its maximum hydropower production level of 184 m.a.m.s.l., within the month of April, requiring controlled releases to ensure dam safety, protect downstream and critical infrastructure.