

Source and upper catchment of River Rwizi

Buhweju District, Uganda

Field observations, hydrological flow, land use, conservation and photographic documentation. Prepared for RWIZI Organisation, August 2026.

1. Executive Summary

This report documents the source and upper catchment environment of River Rwizi in Buhweju District, south-western Uganda. Uganda's Ministry of Water and Environment identifies the Buhweju hills as the origin area of River Rwizi. The wider Rwizi catchment covers approximately 8,554 square kilometres and includes Buhweju, Bushenyi, Sheema, Ntungamo, Mbarara, Rwampara, Isingiro, Kiruhura, Lyantonde, Lwengo, Rakai and Kyotera.

The field photographs document hills, exposed rocks, flowing water, a waterfall, vegetation, banana cultivation, tea-growing and mining-related land use. These observations demonstrate the importance of the Buhweju highlands to the wider river system.

After leaving the Buhweju hills, water moves through small streams and tributaries into the wider Rwizi system and toward the Mbarara area. Downstream, the system is associated with wetlands and interconnected water bodies before ultimately draining toward Lake Victoria.

2. Introduction

River Rwizi is an important water system in south-western Uganda, supporting communities, agriculture, livestock, economic activity and wetland ecosystems. Uganda's Ministry of Water and Environment uses catchment-based integrated water-resources management so that water and related resources are planned according to hydrological rather than purely administrative boundaries.

This report records field observations from the Buhweju source environment, explains the river's downstream progression and identifies conservation priorities relevant to the wider Rwizi catchment.

3. Location and Source Environment

The source environment is located within the hilly landscape of Buhweju District. Official catchment documentation identifies the Buhweju hills as the origin area of River Rwizi. The upper source environment should be understood as a connected landscape of springs, runoff, small streams and tributaries rather than as one isolated point.

A precise source-point report should include GPS coordinates, elevation, photographs of the actual emergence point and confirmation against official hydrological maps.

4. Field Method and Evidence

The report uses direct field observations and the photographs supplied for the Buhweju assessment. The photographic record includes a mining-site sign, vegetation and banana cultivation, flowing water, field-team observations, a waterfall and tea-growing land.

The photographs are treated as the primary field record. Descriptions of wider hydrological connections are based on official catchment information and should not be interpreted as proof that every described location was visited during this field exercise.

5. Detailed Observations

5.1 Hilly and Rocky Terrain The Buhweju landscape is elevated and rugged, with slopes and exposed rocks. Such gradients provide pathways for rainfall runoff and can produce fast-flowing channels, cascades and waterfalls.

5.2 Flowing Water and Waterfalls Flowing water was observed in the upper catchment. The waterfall photograph provides visual evidence of water moving through a rocky section of the landscape.

5.3 Vegetation and Banana Cultivation Vegetation and banana gardens occur around the upper catchment. Maintaining vegetation on steep slopes and near streams is important for soil stability and water protection.

5.4 Tea Growing The supplied tea-plantation photograph shows tea cultivation on the Buhweju hills. Soil and water conservation is particularly important where cultivation occurs on steep terrain.

5.5 Mining and Human Activities The mining-site photograph documents mining-related land use. In March 2026, the Ministry reported engagement with the gold-mining community in Buhweju concerning silting and pollution of River Rwizi and the need for environmentally friendlier mining methods.

5.6 Wetlands and Downstream Storage Wetlands and low-lying areas are important to the wider Rwizi system. Uganda's Water Source Protection Framework identifies unsustainable agricultural practices, siltation, wetland encroachment and reclamation among reported problems affecting the Rwizi/Mbarara water-supply context.

6. Hydrological Flow After the Buhweju Hills

After leaving the Buhweju hills, water moves downhill through springs, small streams and tributaries. These channels progressively join the wider Rwizi river system. The Ministry's Rwizi Catchment Management Plan provides the official catchment framework for understanding these connections.

Mbarara is an important downstream area in the Rwizi system. The wider catchment extends through the districts listed in the official catchment plan, although the catchment boundary should not be interpreted to mean that the main river channel crosses every listed district.

For this report, the safest description is that water from the Buhweju hills contributes to the upper Rwizi network, which develops through tributaries and continues downstream toward the Mbarara area and the lower catchment.

7. Downstream Connection Toward Lake Victoria

Farther downstream, the Rwizi system is associated with wetlands and interconnected water bodies before ultimately draining toward Lake Victoria. The precise downstream pathway should be presented from official hydrological mapping when a detailed route map is required.

Simplified flow pathway: Buhweju hills/source environment -> springs, small streams and waterfalls -> upper Rwizi tributaries -> River Rwizi and Mbarara area -> lower Rwizi wetlands and interconnected water bodies -> Lake Victoria.

8. Environmental Concerns

Soil erosion on steep cultivated slopes; sedimentation of streams and river channels; removal or degradation of vegetation around water sources; wetland encroachment, drainage and conversion; poor agricultural practices that increase runoff; mining and other activities that disturb soil or may introduce pollutants; waste and wastewater entering streams or wetlands; and increasing pressure from settlement, agriculture and economic activity.

9. Conservation and Management Recommendations

GPS-reference the principal springs and source points; protect springs, streams, riverbanks and wetlands from encroachment and pollution; maintain vegetation on steep slopes and around watercourses; promote soil and water conservation in tea, banana and other agricultural areas; promote environmentally responsible mining and control sediment from mining sites; prevent waste and contaminated materials from entering streams; restore degraded riverbanks, wetlands and erosion-prone areas; conduct periodic water-quality and catchment-condition assessments; strengthen community awareness and participation; and maintain photographic and geographical monitoring records.

10. Importance of Protecting the Buhweju Source Area

Protection of the Buhweju source environment has significance beyond the hills themselves. Water, soil and pollutants move through connected parts of a catchment, so degradation in the upper area can have consequences farther downstream. The Ministry's water-resource department is responsible for promoting catchment-based planning and protecting and restoring mountains, forests, wetlands, rivers, aquifers and lakes.

12. Identified Features of the Buhweju Upper Catchment

Buhweju hills and rocky source landscape; flowing water, streams and waterfalls; natural vegetation around watercourses; banana cultivation and other agricultural land uses; tea-growing areas on the Buhweju hills; wetland and low-lying water-storage environments downstream; mining and other human activities requiring environmental management; and community and field-team interaction with the water environment.

13. Field Verification Notes

The supplied photographs constitute the primary photographic record of the field visit. Where a photograph does not show the exact spring emergence point, it should be regarded as documentation of the source environment rather than proof of the precise geographical source. A future technical verification should record coordinates, elevation, source-point photographs, stream direction and nearby administrative and community information.

14. Conclusion

The Buhweju hills form an important upper source environment of River Rwizi. The field photographs document flowing water, waterfalls, rocky terrain, vegetation, banana cultivation, tea-growing and human activities in this landscape.

After leaving the Buhweju hills, water moves through streams and tributaries into the wider Rwizi system and toward the Mbarara area. Downstream, the river becomes increasingly connected with wetlands and interconnected water bodies before ultimately draining toward Lake Victoria. Protecting the upper Buhweju environment is therefore an important part of protecting the wider Rwizi catchment.

15. References

Uganda Ministry of Water and Environment. Rwizi Catchment Management Plan - Popular Version, March 2020.

Uganda Ministry of Water and Environment. Uganda Catchment Management Planning Guidelines.

Uganda Ministry of Water and Environment. Framework and Guidelines for Water Source Protection, including the Mbarara Water Supply (River Rwizi) case.

Uganda Ministry of Water and Environment. 9th South Western Regional Water and Environment Week report, March 2026.

Field photographic documentation supplied for the Buhweju assessment.

11. Photographic Documentation

Figure 1: Buhweju District United Miners Cooperative Society mining-site sign documented during the field visit.

Figure 2: Vegetation, banana cultivation and rocky terrain observed in the Buhweju upper catchment.

Figure 3: Field team at a flowing rocky stream in the Buhweju upper catchment.

Figure 4: Field team documenting flowing water and surrounding vegetation in the source environment.

Figure 5: Waterfall and flowing water in the Buhweju upper catchment, showing rocky terrain and natural vegetation.

Figure 6: Tea plantation on the Buhweju hills, showing agricultural land use within the upper River Rwizi catchment.

CHAPTER 11: COMPLETE PHOTOGRAPHIC APPENDIX

The photographic appendix below retains the full set of photographs supplied for the River Rwizi source and upper-catchment report. The photographs are presented individually, in a field-report style, with descriptive captions.

11.1 FIELD PHOTOGRAPHS

Field Photograph 1: Buhweju District United Miners Cooperative Society mining-site sign.

Field Photograph 2: Banana cultivation, vegetation and rocky terrain in the upper catchment.

Field Photograph 3: Flowing water over rocky terrain in the Buhweju upper catchment.

Field Photograph 4: Field team at the flowing upper-catchment watercourse.

Field Photograph 5: Tea-growing landscape on the Buhweju hills.

Field Photograph 6: Buhweju landscape and source-area setting.

11.2 COMPLETE PHOTOGRAPHIC SET

Photo 1: Rwemigoye Hill - general landscape around the source area.

Photo 2: Point where water emerges from beneath rocks - source environment.

Photo 3: Small stream immediately below the source flowing down Rwemigoye Hill.

Photo 4: Waterfalls and rocky terrain around Rwemigoye Hill.

Photo 5: Kyenjogyera wetland receiving water from the upper source area.

Photo 6: Vegetation and land-use activities around the source.

Photo 7: Wider view of Buhweju hills and the upper Rwizi catchment.

Photo 8: Tea growing along River Rwizi in Buhweju District.

Photo 9: People at the source waters and surrounding environment.

Photo 10: Field/community interaction with the flowing source waters.

Photographic documentation note: the appendix includes photographs supplied with the report. Images used as supplementary visual documentation should be read together with the field observations and should not be treated as independent GPS-verified evidence of a precise source coordinate.

The field photographs

Taken by the field team in Buhweju District, August 2026. They document the source environment; where a photograph does not show the exact emergence point it should be read as a record of the landscape rather than proof of a precise source coordinate.



Buhweju District United Miners Co-operative Society sign, mining site SML00594.





The field team at a stream below the source, the water running brown.





Waterfall in the Buhweju upper catchment, carrying sediment off the slopes.



Tea planted to the ridge on a Buhweju hillside, eucalyptus and cleared ground above.