

Technology and Resources Management in the Tropics and Subtropics (TERMA)

Technical University of Cologne – Institute for Technology and Resources
Management in the Tropics and Subtropics

**Sense and Nonsense of Centralized Water Supply Systems
in Rural Development Environments**
A Case Study in Namalu Uganda

Master Thesis submitted by

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Abstract

Reliable and sustainable water supply constitutes one of the key challenges in rural growth centres, especially in development countries and requires technologies adjusted to local conditions. The current case study examines the functionality of the centralized small-scale piped water distribution system of Namalu Trading Centre in the North East of Uganda. Methods comprised analyses of water quality, field surveys, literature analyses and qualitative and quantitative surveys. Consisted with former research, the results reveal that the water supply system to be insufficient and not reliable due to failures in planning and technical implementation as well as problems in operation and maintenance. Main factors contributing to system functionality are deduced and possible solutions are outlined. Overall a successful implementation of centralized water supply systems in rural development environments requires well-functioning structures as well as comprehensive, long-term supervision and monitoring. The findings illustrate the variety of challenges and the gap between theoretical development approaches and field practices.