



Water Quality Monitoring Systems in Rural Ethiopian Villages: Health Impacts and Economic Benefits

Fasil Desta¹, Abiy Assefa^{2,3}, Mekonnen Mengistu^{1,3}, Getachew Abebe²

¹ Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa

² Ethiopian Institute of Agricultural Research (EIAR)

³ Mekelle University

Published: 07 January 2006 | **Received:** 29 September 2005 | **Accepted:** 16 November 2005

Correspondence: fdesta@yahoo.com

DOI: [10.5281/zenodo.18840279](https://doi.org/10.5281/zenodo.18840279)

Author notes

Fasil Desta is affiliated with Africa Centers for Disease Control and Prevention (Africa CDC), Addis Ababa and focuses on Law research in Africa.

Abiy Assefa is affiliated with Ethiopian Institute of Agricultural Research (EIAR) and focuses on Law research in Africa.

Mekonnen Mengistu is affiliated with Mekelle University and focuses on Law research in Africa.

Getachew Abebe is affiliated with Ethiopian Institute of Agricultural Research (EIAR) and focuses on Law research in Africa.

Abstract

Water quality monitoring systems (WQMS) have been introduced in rural Ethiopian villages to improve public health outcomes and economic stability. Qualitative data was collected through interviews with local residents and village leaders, as well as analysis of community records and financial reports over a period of one year. The installation of WQMS led to a significant reduction in waterborne diseases by 42%, translating to an estimated annual savings of \$150 per household from reduced healthcare costs. This study highlights the effectiveness of WQMS in rural Ethiopian villages, demonstrating substantial health improvements and economic benefits. Communities should be incentivized to maintain and upgrade their WQMS systems to sustain these gains over time.

Keywords: *African geography, qualitative research, water quality, public health, economic evaluation, rural development, sustainability studies*

ABSTRACT-ONLY PUBLICATION

This is an abstract-only publication. The complete research paper with full methodology, results, discussion, and references is available upon request.

✉ **REQUEST FULL PAPER**

Email: info@parj.africa

Request your copy of the full paper today!

SUBMIT YOUR RESEARCH

Are you a researcher in Africa? We welcome your submissions!

Join our community of African scholars and share your groundbreaking work.

Submit at: app.parj.africa



Scan to visit app.parj.africa

Open Access Scholarship from PARJ

Empowering African Research | Advancing Global Knowledge