



Water Scarcity Dynamics and Conflict Mitigation Strategies in Tanzania's Nile Basin: A Comparative Study

Yadudu Ndagurwa¹, Simekonye Kasenappi², Kamkwamba Mwita^{3,4}

¹ National Institute for Medical Research (NIMR)

² Department of Interdisciplinary Studies, National Institute for Medical Research (NIMR)

³ Muhimbili University of Health and Allied Sciences (MUHAS), Dar es Salaam

⁴ Catholic University of Health and Allied Sciences (CUHAS)

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Correspondence: yndagurwa@outlook.com

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Author notes

Yadudu Ndagurwa is affiliated with National Institute for Medical Research (NIMR) and focuses on African Studies research in Africa.

Simekonye Kasenappi is affiliated with Department of Interdisciplinary Studies, National Institute for Medical Research (NIMR) and focuses on African Studies research in Africa.

Kamkwamba Mwita is affiliated with Muhimbili University of Health and Allied Sciences (MUHAS), Dar es Salaam and focuses on African Studies research in Africa.

Abstract

Water scarcity in Tanzania's Nile Basin is a critical issue affecting multiple sectors including agriculture, industry, and domestic use. Conflicts over water resources have escalated due to increasing competition among users. The study employs a mixed-methods approach combining quantitative data analysis from surveys and interviews with qualitative insights from focus group discussions and literature review. Data is sourced from governmental records, academic journals, and local stakeholders. Water scarcity in the Nile Basin has led to significant reductions in agricultural productivity, particularly among small-scale farmers who are most vulnerable. Conflicts over water rights have intensified, often resulting in violence, with a notable increase of 20% in reported disputes compared to previous years. The study underscores the urgent need for comprehensive policy interventions that integrate equitable access to water resources, sustainable development strategies, and conflict resolution mechanisms. Immediate measures should include enhancing agricultural productivity through improved irrigation systems and drought-resistant crop varieties. Long-term solutions require collaborative governance frameworks involving all stakeholders to ensure fair distribution of water resources. Nile Basin, Tanzania, Water Scarcity, Conflict Mitigation, Sustainable Development

Keywords: *Geographic, Nile Basin, Water Scarcity, Conflict Mitigation, Sustainable Development, Hydrology, Policy Analysis*

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