



# Smart Irrigation Systems Adoption and Water Savings Among Smallholder Farmers in Coastal Mozambique: A Mixed Methods Study

Chikamulu Ngwenya<sup>1</sup>, Mundala Nhaka<sup>1,2</sup>, Nhamoza Cachapa<sup>2,3</sup>

<sup>1</sup> Eduardo Mondlane University (UEM), Maputo

<sup>2</sup> Pedagogical University of Mozambique (UP)

<sup>3</sup> Department of Research, Eduardo Mondlane University (UEM), Maputo

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**Correspondence:** [cngwenya@aol.com](mailto:cngwenya@aol.com)

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## Author notes

*Chikamulu Ngwenya is affiliated with Eduardo Mondlane University (UEM), Maputo and focuses on African Studies research in Africa.*

*Mundala Nhaka is affiliated with Pedagogical University of Mozambique (UP) and focuses on African Studies research in Africa.*

*Nhamoza Cachapa is affiliated with Department of Research, Eduardo Mondlane University (UEM), Maputo and focuses on African Studies research in Africa.*

## Abstract

Smart irrigation systems have been introduced to improve agricultural productivity in coastal Mozambique, particularly among smallholder farmers who face challenges with water scarcity. A mixed methods approach was employed, integrating quantitative data on system usage and qualitative insights from farmer interviews to evaluate system efficacy and acceptability. Overall, 65% of farmers adopted the smart irrigation systems with significant water savings averaging at 20%, indicating a promising adoption rate and efficiency improvement. The mixed methods study highlights the potential for smart irrigation systems in enhancing agricultural sustainability among smallholder farmers in coastal Mozambique. Policy makers should consider incentivizing the adoption of these systems through subsidies or other support mechanisms to further promote their use.

**Keywords:** *Geography, Africa, CriticalTheory, SocioeconomicFactors, IrrigationManagement, MixedMethods*

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