



# Solar-Powered Water Wells and Maternal Mortality Reduction in Mozambican Rural Communities: A Six-Month Intervention Study

Makosarina Nhamanga<sup>1</sup>, Fernando Chibba<sup>2,3</sup>

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

<sup>2</sup> Eduardo Mondlane University (UEM), Maputo

<sup>3</sup> Department of Epidemiology, Instituto Nacional de Investigação Agrária (INIA)

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**Correspondence:** [mnamanga@yahoo.com](mailto:mnamanga@yahoo.com)

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## Author notes

*Makosarina Nhamanga is affiliated with Department of Surgery, Eduardo Mondlane University (UEM), Maputo and focuses on Medicine research in Africa.*

*Fernando Chibba is affiliated with Eduardo Mondlane University (UEM), Maputo and focuses on Medicine research in Africa.*

## Abstract

In Mozambique, rural communities often lack access to reliable water sources, which can increase the risk of maternal infections and other complications during childbirth. A mixed-methods approach including baseline surveys, post-intervention follow-ups, and community feedback sessions was employed to assess changes in maternal health outcomes. Data analysis revealed a statistically significant decrease ( $p < 0.05$ ) in reported cases of severe infections among pregnant women who had access to solar-powered water wells compared to those without such facilities. The intervention demonstrated potential benefits for maternal health, though further research is needed to confirm these findings and explore long-term sustainability. Future studies should focus on scaling up the project and exploring cost-effective maintenance strategies to ensure continued access to clean water in rural areas. Maternal mortality, solar-powered water wells, Mozambique, rural healthcare, public health interventions

**Keywords:** *African, Geographic, MaternalHealth, SolarPower, WaterSupply, Interventions, CommunityBased*

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