



Solar-Powered Livestock Watering Systems and Milk Yield in Kenyan Pastoral Communities: An Impact Assessment Study

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Published: 09 July 2013 | **Received:** 08 April 2013 | **Accepted:** 02 June 2013

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DOI: [10.5281/zenodo.18985414](https://doi.org/10.5281/zenodo.18985414)

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Abstract

Solar-powered livestock watering systems are increasingly being implemented in pastoral communities to address water scarcity issues. A mixed-methods approach incorporating surveys, interviews, and observational data was employed to assess the system's impact over two growing seasons in four purposively selected communities. Slightly increased milk yields were observed among households with solar-powered systems compared to those without (average increase of 10% per household). The findings suggest that solar-powered livestock watering systems can positively influence milk production, though the impact varies across different community contexts. Communities should be provided with technical support and financial incentives for adopting these systems to maximise their benefits.

Keywords: Kenya, pastoralism, solar energy, water scarcity, impact assessment, livelihoods, milk yield

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