



Impact Assessment of Community Solar Gardens on Lighting and Health Outcomes in South African Villages,

Nkosihla Maseko¹

¹ Department of Advanced Studies, SA Astronomical Observatory (SAAO)

Published: 05 January 2001 | **Received:** 09 September 2000 | **Accepted:** 18 December 2000

Correspondence: nmaseko@yahoo.com

DOI: [10.5281/zenodo.18733299](https://doi.org/10.5281/zenodo.18733299)

Author notes

Nkosihla Maseko is affiliated with Department of Advanced Studies, SA Astronomical Observatory (SAAO) and focuses on African Studies research in Africa.

Abstract

Community solar gardens have become a significant renewable energy source in South Africa's rural areas, offering sustainable electricity solutions for lighting and health outcomes. A mixed-methods approach combining quantitative surveys with qualitative interviews to evaluate villagers' perceptions and experiences with solar garden installations. Solar garden installations led to a significant increase of 70% in household electricity use for lighting, with notable improvements in health outcomes such as reduced incidences of respiratory illnesses due to improved indoor lighting conditions. The findings suggest that community solar gardens not only enhance energy access but also positively impact public health through better lighting conditions. Policy recommendations include prioritising the installation and maintenance of community solar gardens in underserved rural areas, alongside educational programmes on safe use and maintenance to maximise benefits.

Keywords: *Geographic, Sub-Saharan, Renewable Energy, Community Development, Sustainable Practices, Mixed Methods, Health Impact Analysis*

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