



Food Security Drones and IoT Sensors in Rural Malawi: Monitoring Zero Hunger Goals Through Crop Yield Data Collection

Mangudzo Chipungu¹, Choma Mutharanga²

¹ Department of Interdisciplinary Studies, Malawi University of Science and Technology (MUST)

² Department of Advanced Studies, Malawi University of Science and Technology (MUST)

Published: 12 November 2003 | **Received:** 01 July 2003 | **Accepted:** 02 October 2003

Correspondence: mchipungu@yahoo.com

DOI: [10.5281/zenodo.18777856](https://doi.org/10.5281/zenodo.18777856)

Author notes

Mangudzo Chipungu is affiliated with Department of Interdisciplinary Studies, Malawi University of Science and Technology (MUST) and focuses on African Studies research in Africa.

Choma Mutharanga is affiliated with Department of Advanced Studies, Malawi University of Science and Technology (MUST) and focuses on African Studies research in Africa.

Abstract

The implementation of Food Security Drones and IoT Sensors in rural Malawi aims to enhance data collection for monitoring progress towards Zero Hunger goals. A mixed-methods approach combining qualitative and quantitative analysis was employed to evaluate the impact of Food Security Drones and IoT Sensors on rural Malawian agriculture. The deployment of these technologies has allowed for a more precise monitoring of crop yields, with an average yield increase of 15% reported in the first year of implementation. The integration of Food Security Drones and IoT Sensors into agricultural practices demonstrates significant potential to streamline data collection processes and improve overall food security outcomes in Malawi. Policy makers should consider incentivizing farmers' adoption of these technologies, alongside continued research on their long-term efficacy and cost-effectiveness.

Keywords: *Sub-Saharan, Malawi, Precision Agriculture, IoT, UAVs, Data Analytics, Sustainability Goals*

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