

Sulman Olieko OWILI

+254 710 209 720

oliekosulman@gmail.com

Nairobi, Kenya

sulmanolieko.github.io

in olieko-sulman

SulmanOlieko

0000-0001-7401-5326

Summary


Sulman is an award-winning agricultural and applied economist dedicated to implementing innovative research techniques to inform sustainable policies for rural development and the agri-food sector. In 2023, he was recognised as the Best Collaborative Masters in Agricultural and Applied Economics (CMAAE) student, an accolade awarded within the CMAAE programme that included eight major universities across Eastern and Southern Africa. Earlier that year, he was also acknowledged as the second-best master's student in the Faculty of Agriculture at the University of Nairobi. Sulman is currently a Research Fellow at the International Institute of Tropical Agriculture (IITA) and has undertaken numerous consultancy engagements with international research organisations, including IITA, World Agroforestry (CIFOR-ICRAF), the American Heart Association (AHA), and the Alliance of Bioversity International and CIAT. His research interests span production and ecological economics, causal analysis, microeconomics, Bayesian econometrics, statistics, and quantitative modelling, with a bias towards sustainable technology adoption and innovation systems as pathways to food sovereignty, poverty alleviation, and the empowerment of marginalised communities and groups, while mitigating the impacts of climate change.

Education

MSc Agricultural and Applied Economics , University of Nairobi	Sept. 2021 to Sept. 2025
<ul style="list-style-type: none"> ✓ Coursework: Quantitative Methods for Policy Analysis; Econometrics; Statistics; Production Economics; Mathematics for Economists; Research Methods; Institutional and Behavioural Economics; Issues in Agricultural and Applied Economics; Agricultural Policy Analysis; Agricultural Marketing and Price Analysis. ✓ Thesis title: Intensity of Adoption of Agro-ecological Pest Management Strategies for Mango Fruit Fly Suppression and Its Effect on Technical- and Eco-efficiency of Smallholder Farmers in Kenya ✓ Supervisors: Prof. David Otieno, Dr. Evans Chimoita & Dr. Frederick Baijukya. 	<ul style="list-style-type: none"> Academic documents <ul style="list-style-type: none"> Transcripts (Provisional) Publications from MSc thesis <ul style="list-style-type: none"> Journal article 1 (Provisional) Journal article 2 (Provisional) Awards <ul style="list-style-type: none"> Best CMAAE SFSE Student (Provisional) & (Provisional) CMAAE Academic Board Prize (Provisional) Second-best Masters Student (Provisional)
BSc Agricultural Education and Extension , University of Nairobi	Sept. 2016 to Dec. 2020
<ul style="list-style-type: none"> ✓ Degree Classification: First Class Honours 	<ul style="list-style-type: none"> Academic documents <ul style="list-style-type: none"> Transcripts (Provisional) Certificate (First Class Honours)

Academic employment & experience

International Institute of Tropical Agriculture (IITA) , Research fellow Project II: Agroecology Initiative (<i>Multifunctional Landscapes</i>) Supervisor: Dr. Frederick Baijukya	Nairobi, Kenya Jul. 2022 to present 3 years 2 months
<ul style="list-style-type: none"> ✓ Localised key performance indicators, programmed survey questionnaire in KoboToolbox and pretested questionnaire, trained enumerators, supervised the two-wave data collection, validated, cleaned, and analysed data for the Holistic Localised Performance Assessment for Agroecology (HOLPA) survey under the CGIAR's Initiative on Agroecology; Conducted research towards my masters thesis and wrote two research manuscripts out of my thesis objectives as part of the Agroecology Initiative project outputs; Contributed to conceptualisation, data cleaning, analysis and visualisation (R, Stata, Python, and QGIS), writing, and reviewing of technical reports. 	
International Institute of Tropical Agriculture (IITA) , Research Associate, Consultant Project I: Excellence in Agronomy Initiative Supervisor: Dr. Tesfamichael Wossen	Nairobi, Kenya Jun. 2024 to Nov. 2024 6 months
<ul style="list-style-type: none"> ✓ Cleaned, processed, and analysed primary and secondary data, including the development of R/Stata scripts to automate retrieval from and upload of data to databases and data management systems, ensuring quality and completeness; Conducted literature reviews and synthesis; Extracted critical outcomes and impact indicators and writing research reports, scientific papers, and policy briefs. 	

 **American Heart Association**, Regreening Agriculture Case Study Co-facilitator, Consultant

Project: FoodEdu & Good Food Fellows **Supervisor:** Britt Molde

- ✓ Facilitated filming crew with identification of key informants for interview as well as translation, editing and review of the film storyline for accuracy, viewer engagement, and maximum impact.

Nairobi, Kenya
Jan. 2025 to Jul. 2025
6 months

 **Alliance of Bioversity and CIAT**, Research Associate, Consultant

Project II: ABCD in Regreening **Supervisor:** Dr. Lisa E. Fuchs

- ✓ Reviewed existing reports and additional literature to strengthen literature review sections and conceptual framing; Composed draft papers that draw on the existing materials and additional literature and finalise publishable drafts in formatting required by agreed upon journals.

Nairobi, Kenya
May. 2025 to Jul. 2025
3 months

Project I: Food Quality Data Initiative on Regenerative Agriculture (Periodic Table of Food Initiative)

Supervisor: Dr. Francis Oduor

- ✓ Conducted literature review on regenerative agriculture practices in common bean production systems; Analysed the current context of agricultural practices in Embu County, including challenges faced by smallholder farmers; Supported in the day to day management of the field experiment in Embu; Assisted in designing and conducting surveys with farmers in Embu County; Collected data on costs, yields, labour requirements, and potential environmental impacts of both conventional and regenerative practices; Contributed to the collection of food samples for biomolecular composition analysis using PTFI standardised multi-omics tools; Conducted a comprehensive analysis of the economic, environmental, and social trade-offs involved in adopting regenerative agriculture practices in Embu County, with a focus on common bean production systems.

Nairobi, Kenya
Oct. 2024 to Mar. 2025
6 months

 **World Agroforestry (CIFOR-ICRAF)**, Agroecological Systems and Research Analyst, Consultant

Project: Agroecology Initiative & TRANSITIONS Metrics & ABCD in Regreening

Supervisors: Dr. Lisa E. Fuchs & Dr. Matthias Geck

- ✓ Supported the Kenya team in HOLPA data cleaning, merging, managing the database and analysis depending on the needs of each team player towards achievement of Work Package output targets; Analysed baseline, midline, and endline data for the ABCD in Regreening project to assess causal effects of project interventions (implemented in Stata and R); Analysed baseline and endline data for Regreening Africa project to assess the impact of project interventions (implemented in Stata and R); Reported results to the project research team in a timely and logical manner; Contributed to conceptualisation, data cleaning and analysis (R, Stata, and QGIS), writing, and reviewing of research manuscripts.

Nairobi, Kenya
Dec. 2023 to Dec. 2024
1 year


 **University of Nairobi**, Assistant Lecturer

Supervisor: Dr. Evans L. Chimoita


- ✓ Developed instructional materials, lectured, and developed, administered and graded tests for final year undergraduate students on Food Economics and Policy (AEX404) and Environmental Education (AEX406).

Nairobi, Kenya
Sept. 2022 to Mar 2024
1 year 10 months

Recent publications & working papers

 **Owili, S.O.** (2025). **Agro-ecological pest control options for improved eco-efficiency of smallholder farming systems in the face of invasive alien pests: a review.** *Working paper*

Working paper
Book Chapter

 **Owili, S.O.**, Korir, H., Onyango, K.O., Bolo, P.O., Baijukya, F.P., Nyawira, S.S., Anyango, E., Adoyo, B., and Geck, M. (2025). **Behavioural mechanisms and social capital in pro-agroecological transitions – a comparative analysis of two case studies in Kenya.** *Working paper*





Working paper
Journal article

-  Fuchs, L.E., Orero, L., van Dien, L.C., Apondi, V., Kipkorir, L., Kamau, A., Muia, D., Michuki, G., Njiru, R., and **Owili, S.O.** (2025). **Evidencing that process matters: Conceptualising and evaluating the contribution of an asset-based and agency-focused engagement approach to strengthening Regreening Africa outcomes in Kenya.** *Working paper* Working paper
Journal article
- ✓  **Owili, S.O.**, Otieno, D.J., Chimoita, E.L., and Baijukya, F.P. (2025). **Heterogeneous multidimensional efficiency effects of agro-ecological pest management transition and intensification in smallholder systems: Evidence from mango fruit fly control in Kenya.** *In press* DOI: See preprint version here [10.1101/2025.01.15.633333](https://doi.org/10.1101/2025.01.15.633333) Under review
Discover Agriculture
Springer Nature
Journal article
-  **Owili, S.O.**, Otieno, D.J., Chimoita, E.L., and Baijukya, F.P. (2024). **Heterogeneous efficiency effects of agro-ecological fruit fly management transition and intensification among smallholder mango farmers: A latent class stochastic metafrontier approach.** *Agroecology Stakeholder Workshop. December 12, 2024, Nairobi, Kenya –ICRAF Conference Hall & Online.* CGSpace. Poster. DOI: [10.13140/RG.2.2.32738.13766](https://doi.org/10.13140/RG.2.2.32738.13766)
-  Nyawira, S., Korir, H., Bolo, P., Onyango, K., **Owili, S.O.**, Letty, B., Wamaitha, C., Njogu, M., Anyango, E., and Baijukya, F. (2024) **Performance assessment of agroecology in Makueni and Kiambu counties, Kenya.** CGSpace DOI: [10.13140/RG.2.2.36127.53928](https://doi.org/10.13140/RG.2.2.36127.53928) December 31, 2024
Technical report
- ✓  Fuchs, L.E., Orero, L., Kipkorir, L., Apondi, V., and **Owili, S.O.** (2024). **Scaling models for Regreening Africa: Enhancing agroecological integration through smallholders' assets and agency in Kenya.** *Frontiers in Sustainable Food Systems* 1-22: 8(4). DOI: [10.3389/fsufs.2024.1449615](https://doi.org/10.3389/fsufs.2024.1449615) November 11, 2024
Journal article
-  Fuchs, L.E., Orero, L., Kipkorir, L., Apondi, V., and **Owili, S.O.** (2024). **Sustainable scaling models for Regreening Africa: Focusing on smallholders' assets and agency to increase agroecological integration in Kenya.** *Agroecology TPP 2nd Annual Members Forum Meeting 2024 Conference. 12–13 March 2024, Nairobi, Kenya –ICRAF Conference Hall & Online.* Poster. DOI: [10.13140/RG.2.2.32738.13766](https://doi.org/10.13140/RG.2.2.32738.13766)
-  **Owili, S.O.**, Otieno, D.J., Chimoita, E.L., and Baijukya, F.P. (2024). **Factors influencing adoption of agro-ecological pest management options for mango fruit fly under information constraints: A two-part fractional regression approach.** *International Journal of Pest Management* 1–19. DOI: [10.1080/09670874.2024.2413592](https://doi.org/10.1080/09670874.2024.2413592) November 4, 2024
Journal article
-  Nyawira, S., Bolo, P., Ntinyari, W., Orero, L., Onyango, K., Manjella, A., Sakha, M., **Owili, S.O.**, Gumo, P., Mbelwa, M., Korir, H., and Fuchs, L.E. (2023). **Kenya context assessment report: A desk-top review of the context of agroecological principles of Kiambu and Makueni counties.** CGSpace DOI: [10.13140/RG.2.2.36127.53928](https://doi.org/10.13140/RG.2.2.36127.53928) December 31, 2023
Technical report




Awards

- 🏆 **Best CMAAE SFSE 2022 Student Award** (see on pp. 32 [🔗](#) & (pp. 56) [🔗](#), (Aug. 2023). Best overall in the joint third semester in Agricultural and Applied programme participated by eight major universities across Eastern and Southern Africa.
- 🏆 **CMAAE Academic Advisory Board Prize Winner** [🔗](#), (Aug. 2023)
- 🏆 **Second-Best Masters Student, Faculty of Agriculture** (pp. 22) [🔗](#), (May 2023). Among those recognised as the best students in the University of Nairobi, academic year 2021/2022. See Certificate of Merit here [🔗](#)


Projects


-   **MetafrontierR** [🔗](#): Developing an R package for stochastic metafrontier analysis. Work in progress
-   **CollatzR** [🔗](#): Developed an R package for visualising hailstone sequences. Aug. 2023

Programming skills

- 🔗 **Data Cleaning, Wrangling and Analysis Languages:** R (advanced), Stata (advanced), SQL (intermediate), Python (intermediate), Julia (beginner).  **Data Visualisation:** L^AT_EX (advanced), Stata (advanced), R (advanced), QGIS (advanced), Python (intermediate).
-  **Scientific Writing:** L^AT_EX (advanced), Microsoft Office (advanced).  **Dashboard, Web- and Web-App Development Languages:** HTML (advanced), CSS (advanced), R (advanced), JavaScript (intermediate), Python (intermediate).

Referees

 **Prof. Jonathan M. Nzuma**,
Chairman and Associate professor,
Department of Agricultural Economics,
University of Nairobi.
[✉ j.nzuma@uonbi.ac.ke](mailto:j.nzuma@uonbi.ac.ke) [🔗](#)

 **Prof. David J. Otieno**,
Supervisor and Associate professor,
Department of Agricultural Economics,
University of Nairobi.
[✉ david.jakinda@uonbi.ac.ke](mailto:david.jakinda@uonbi.ac.ke) [🔗](#)

 **Dr. Lisa E. Fuchs**,
Multifunctional Landscapes Scientist,
Multifunctional Landscapes Lever,
International Center for Tropical Agriculture,
[✉ l.fuchs@cgiar.org](mailto:l.fuchs@cgiar.org) [🔗](#)