

Sulman is an agricultural and applied economist with interest in applying innovative research and quantitative methods to inform sustainable food systems policies and advance sustainable development in the agri-food sector. In 2023, he was recognised as the Best Collaborative Masters in Agricultural and Applied Economics (CMAAE) student across eight leading universities in Eastern and Southern Africa. Ranked second- and third-best master's student in the Faculty of Agriculture at the University of Nairobi in 2023 and 2026, respectively. Research Fellow at the International Institute of Tropical Agriculture (IITA) with consultancy experience across international organisations including IITA, World Agroforestry (CIFOR-ICRAF), American Heart Association (AHA), and Alliance of Bioversity International and CIAT. Research expertise spans efficiency analysis, technology adoption, causal inference, Bayesian econometrics, and quantitative modelling of food systems. Committed to food sovereignty, climate change mitigation, poverty alleviation, and empowerment of marginalised communities.

## WORK EXPERIENCE

**Research Fellow / Agroecology Initiative (Multifunctional Landscapes)** Jul. 2022 — Dec. 2025  
*International Institute of Tropical Agriculture (IITA)* Nairobi, Kenya

- Localised KPIs, programmed and pretested HOLPA survey questionnaires in KoboToolbox, trained and supervised enumerators for two-wave data collection under CGIAR's Agroecology Initiative; conducted thesis research and authored two research manuscripts; contributed to data cleaning, analysis (R, Stata, Python, QGIS), and technical report writing.

**Research Associate (Consultant) / ABCD in Regreening** May 2025 — Jul. 2025  
*Alliance of Bioversity and CIAT* Nairobi, Kenya

- Reviewed existing reports and literature to strengthen literature review sections and conceptual framing; composed draft papers and finalised publishable manuscripts in journal-required formatting.

**Regreening Agriculture Case Study Co-facilitator (Consultant) / FoodEdu & Good Food Fellows** Jan. 2025 — Jul. 2025  
*American Heart Association (AHA)* Nairobi, Kenya

- Facilitated filming crew by identifying key informants for interviews and translating, editing, and reviewing film storylines for accuracy, engagement, and impact.

**Research Assistant (Consultant) / Food Quality Data on Regenerative Agriculture (PTFI)** Oct. 2024 — Mar. 2025  
*Alliance of Bioversity and CIAT* Nairobi, Kenya

- Conducted literature review on regenerative agriculture in common bean systems; analysed farming practices and challenges in Embu County; managed field experiments and farmer surveys; collected cost, yield, labour, and environmental data; contributed to food sample collection for biomolecular analysis; completed comprehensive economic, environmental, and social trade-off analysis of regenerative agriculture adoption.

**Research Associate (Consultant) / Excellence in Agronomy Initiative** Jun. 2024 — Nov. 2024  
*International Institute of Tropical Agriculture (IITA)* Nairobi, Kenya

- Cleaned and processed primary and secondary data using R and Stata scripts for database automation; conducted literature reviews and synthesis; extracted impact indicators and wrote research reports, scientific papers, and policy briefs.

**Research Analyst (Consultant) / Agroecology Initiative (Multifunctional Landscapes)** Dec. 2023 — Dec. 2024  
*World Agroforestry (CIFOR-ICRAF)* Nairobi, Kenya

- Supported Kenya team in HOLPA data cleaning, database management, and analysis to achieve Work Package targets; contributed to data processing (R, Stata, QGIS), manuscript writing, and technical reviews.

**Research Analyst (Consultant) / ABCD in Regreening** Dec. 2023 — Dec. 2024  
*World Agroforestry (CIFOR-ICRAF)* Nairobi, Kenya

- Analysed baseline, midline, and endline data for ABCD in Regreening and Regreening Africa projects using Stata and R to assess causal and impact effects of interventions; reported results to research team; contributed to manuscript conceptualisation, analysis, and review.

**Research Analyst (Consultant) / TRANSITIONS Metrics Library** Dec. 2023 — Dec. 2024  
*World Agroforestry (CIFOR-ICRAF)* Nairobi, Kenya

- Cleaned 18,000+ food systems metrics database using R; reviewed UI design, provided feedback on missing functionalities, and reported 20+ bugs for patching.

**Teaching Assistant** Sept. 2022 — Mar. 2024  
*Department of Agricultural Economics, University of Nairobi* Nairobi, Kenya

- Developed instructional materials, lectured, and administered and graded assessments for final-year undergraduates in Food Economics and Policy (AEX404) and Environmental Education (AEX406).

## EDUCATION

---

Master of Science in Agricultural and Applied Economics, <i>University of Nairobi</i>	Dec. 2025
Bachelor of Science in Agricultural Education and Extension (First-Class Honours), <i>University of Nairobi</i>	Dec. 2020

## AWARDS

---

Best CMAAE SFSE 2022 Student Award	Aug. 2023
CMAAE Academic Advisory Board Prize Winner	Aug. 2023
Second-Best Masters Student, Faculty of Agriculture ( <i>Part I, Coursework</i> )	May 2023
Third-Best Masters Student, Faculty of Agriculture ( <i>Part II, Thesis</i> )	May 2026

## PUBLICATIONS

### SOFTWARE

- Owili, S.O.** (2026). **smfa: Stochastic Metafrontier Analysis**. *R package version 1.0.0*. CRAN. <https://doi.org/10.32614/CRAN.package.smfa>. Github. Developer version: SulmanOlieko/smfa.
- Owili, S.O.** (2026). **fracreg: Fractional Response Regressions**. *R package version 1.0.0*. Github. Developer version: SulmanOlieko/fracreg. [Under review]

### JOURNAL ARTICLES

- Owili, S.O.**, Otieno, D.J., Chimoita, E.L., and Baijukya, F.P. (2026). **Heterogeneous multidimensional efficiency effects of agro-ecological pest management transition and intensification in smallholder systems – evidence from mango fruit fly control in Kenya**. *Discover Agriculture*. DOI:<https://doi.org/10.1007/s44279-026-00521-7>.
- 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). Associated dataset: DOI: <https://doi.org/10.7910/DVN/TQJ2PJ>
- 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: <https://doi.org/10.1080/09670874.2024.2413592>

### TECHNICAL REPORTS

- 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*. Handle: [10568/169052](https://hdl.handle.net/10568/169052) DOI: <https://doi.org/10.13140/RG.2.2.22137.99689>
- 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*. Handle: [10568/137468](https://hdl.handle.net/10568/137468) DOI: <http://dx.doi.org/10.13140/RG.2.2.36127.53928>

### CONFERENCE PAPERS & POSTERS

- Nyawira, S.S., Bolo, P.O., Onyango, K.O., Korir, H., **Owili, S.O.**, Baijukya, F.P., Sanchez, A.C., and Jones, S.K. (2025). **Assessing the agroecological performance of smallholder households in Kiambu and Makueni counties in Kenya**. *Tropentag 2025. September 10–12, 2025, Bonn, Germany. Reconciling land system changes with planetary health*. Poster. [https://sulmanolieko.github.io/publication/poster/typology/Tropentag\\_presentation\\_sN.pdf](https://sulmanolieko.github.io/publication/poster/typology/Tropentag_presentation_sN.pdf)
- 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. Handle: <https://hdl.handle.net/10568/170186>
- 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. Handle: [10568/170186](https://hdl.handle.net/10568/170186) DOI: <https://doi.org/10.13140/RG.2.2.32738.13766>

### WORKING PAPERS

- Fuchs, L.E., Orero, L., van Dien, L.C., Apondi, V., Kipkorir, L., and **Owili, S.O.** (2026). **Farmer-led tools and dashboards as catalysts for improved gender relations, livelihoods and sustainable use of forest, tree and agroforestry systems: perspectives from smallholders in Western Kenya**. *Preprint*
- 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.** (2026). **Heterogeneous pathways of an asset-based, agency-focused approach to sustainable land and livelihoods restoration in Kenya: A mixed-methods approach**. *Preprint*

## SKILLS

---

**Programming:** R (advanced), Python (intermediate), Stata (advanced), Git (advanced),  $\LaTeX$ (advanced)  
**Language:** English (professional), Swahili (native)