

# Tobias Okando Recha

## Education & Training

**PhD in Agrobiodiversity** | Scuola Superiore Sant'Anna | 01/10/2021 - Current | Pisa, Italy

**Master of Science in Land and Water Management** | University of Nairobi | 01/09/2014 - 01/04/2017 | Nairobi, Kenya

**Bachelor of Science in Management of Agroecosystems and Environment** | University of Nairobi | 01/09/2010 - 01/08/2014 | Nairobi, Kenya

## Skills

**Data and Analytics** | Research databases: design, documentation, and reproducible workflows | Survey and impact-evaluation analysis; problem framing & evidence synthesis | Quantitative & qualitative data collection; statistical analysis | QGIS (Spatial Analysis, Map Layouts)

**Digital tools and software** | Kobo/ODK for survey design and field data capture | R (data wrangling, visualization, modeling) | DSSAT crop modeling; ClimMob (Tricot/crowdsourcing) | Microsoft Office: Word, Excel, PowerPoint | GPS/GNSS Data Capture; Waypoint/Track Management; Shapefile/GeoJSON

**Research and Fieldwork** | Experimental design & implementation (on-station, mother-baby, crowdsourcing) | Sampling design, tool piloting, enumerator training/supervision, and key-informant interviews | Project coordination across countries; stakeholder engagement and partner management | Tree Inventory Protocols (Fixed-Area Plots, Transects, Re-measures) | Species Identification; Voucher Collection & Labeling | Dendrometry: DBH, Height, Crown Measurements

**Project and Leadership** | Team leadership and mentoring; reliable independent work and task ownership | Proposal/grant writing; donor reporting and M&E alignment

## Language Skills

Mother tongue(s): **Luhya**

|                  | Understanding |         | Speaking          |                    | Writing |
|------------------|---------------|---------|-------------------|--------------------|---------|
|                  | Listening     | Reading | Spoken production | Spoken interaction |         |
| <b>English</b>   | C2            | C2      | C2                | C2                 | C2      |
| <b>Italian</b>   | A1            | A1      | A1                | A1                 | A1      |
| <b>Kiswahili</b> | C2            | C2      | C2                | C2                 | C2      |

## Work experience

**Tree Verification Consultant** | World Resources Institute (TerraFund Project) | 01/09/2024 - 31/03/2025 | Nairobi, Kenya

Led the design and implementation of a Field Verification Protocol to assess tree populations (mature trees, saplings,

seedlings) across restoration sites in Ghana, Kenya, and Rwanda

Coordinated field teams (45 enumerators and 9 supervisors) and organized multi-country trainings on tree inventory protocols and data collection using KoboCollect

Oversaw pilot testing, data collection, and high-frequency quality control checks on over 1,000 plots to ensure accuracy and consistency

Managed data cleaning, statistical analysis (using R), and synthesis of tree population metrics to evaluate restoration outcomes

Conducted a comprehensive assessment of the protocol's efficiency, accuracy, usability, and scalability, and provided recommendations for improvement

Produced inception, progress, and final reports, and presented results and lessons learned to stakeholders at World Resources Institute

**Impact Research Fellow** | Crop Trust (Global Crop Diversity Trust) | 01/01/2024 - 30/08/2024 | Nairobi, Kenya

Designed a mixed-methods evaluation framework and tools to assess how national genebanks enhance on-farm seed diversity across two Kenyan counties and multiple crops.

Led climate-impact mapping on food production, farmer decision-making, and food sovereignty; distilled findings into decision-ready insights.

Recruited, trained, and supervised field enumerators; implemented quality-control routines (pilots, spot checks, data audits) to ensure high-integrity data.

Documented smallholder climate-adaptation strategies and integrated them into genebank impact narratives and the project's theory of change.

Cleaned, analyzed, and visualized field datasets; produced comprehensive impact reports and concise information notes for stakeholders.

Contributed to drafting a publication on national genebank user groups (GUGs), synthesizing evidence on engagement models, seed access, and policy implications.

Contributed to policy-oriented outputs aligned with national and regional climate-adaptation priorities to support partner uptake.

**Research Fellow** | Alliance of Bioversity International and CIAT | 01/03/2018 - 30/10/2021 | Nairobi, Kenya

Co-designed and implemented farmer-led crowdsourcing/citizen-science trials for beans, forage legumes, millet, sorghum, and vegetables across multiple countries.

Trained farmer groups and field staff on trial protocols, data collection (Kobo/ODK), and good agronomic practices for target crops.

Assessed and documented diversity, uses, and value chains of neglected and underutilized species (NUS) in East Africa.

Built and managed integrated databases for crowdsourcing, agronomy, and climate datasets; ensured rigorous data curation and reproducible workflows.

Conducted multi-country statistical analyses and authored clear, decision-ready technical reports for program leads and partners.

Provided technical backstopping on climate-smart seed systems to national partners, aligning activities with adaptation priorities and delivery pathways.

Coordinated multi-partner implementation, stakeholder engagement, and cross-country work planning to keep milestones on track.

Compiled timely donor reports compliant with contractual formats and M&E requirements.

Contributed to national seed portal design and to portfolios guiding community seedbank establishment in Kenya and Uganda.

Supported resource mobilization by drafting concept notes and proposals for small and large grants.

Co-authored policy briefs and contributed to peer-reviewed manuscripts on seed systems, varietal adoption, and participatory approaches.

Developed learning materials and delivered sessions at Wageningen University on participatory crop improvement and farmer-centered research.

**Program Officer, Agroecology** | Sustainable Agriculture And Natural Resource Management Africa (SANREM - AFRICA) | 01/08/2014 - 28/02/2018 | Nairobi, Kenya

Collaborated on multi-country (Kenya, Uganda and Tanzania) initiatives to scale farmer-led innovations for climate resilience and agroecological transitions, aligning project designs with partner priorities and local contexts.

Coordinated SANREM-Africa's agroecology research portfolio, overseeing workplans, ethics/permits, and M&E to ensure timely delivery and methodological rigor.

Supported studies on smallholder innovation, sustainable intensification, and agrobiodiversity, including protocol development, field coordination, and data quality assurance.

Presented findings at national and regional workshops and conferences, translating evidence into actionable recommendations for practitioners and policymakers.

Facilitated partner coordination (universities, NGOs, government extension) and day-to-day project delivery, troubleshooting operational bottlenecks and maintaining stakeholder engagement

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## Publications

### **Adapting Nyando smallholder farming systems to climate change and variability through modeling**

Tobias Okando Recha; Gachene Charles K. K.; Lieven Claessens (2017). Academic Journals Recha, T. O., C. K. K. Gachene, and L. Claessens. 2017. "Adapting Nyando smallholder farming systems to climate change and variability through modeling." *African Journal of Agricultural Research* 12(26): 2178–2187. *African Journal of Agricultural Research* 12(26), 2178–2187.

<http://www.academicjournals.org/journal/AJAR/article-abstract/4D7E0A964989>

### **Resilient seed systems for climate change adaptation and sustainable livelihoods in the East Africa subregion: Report of the consultative workshop, 5–8 March 2019, Entebbe, Uganda**

Tobias Recha; Ronnie Vernooy; Michael Halewood; Gloria Otieno (2019). Recha, T., R. Vernooy, M. Halewood, and G. Otieno. 2019. *Resilient seed systems for climate change adaptation and sustainable livelihoods in the East Africa subregion*. Bioversity International, Rome. Bioversity International

[https://www.bioversityinternational.org/fileadmin/user\\_upload/Resilient\\_Recha\\_2019.pdf](https://www.bioversityinternational.org/fileadmin/user_upload/Resilient_Recha_2019.pdf)

### **Report of the International Workshop on Registration of Farmers' Varieties, 4–7 December 2018, Entebbe, Uganda**

Tobias Recha; Charles Muwanika; Gloria Otieno; Bram De Jonge (2019). Bioversity International / Oxfam Novib Recha, T., C. Muwanika, G. Otieno, and B. De Jonge. 2019. *Report of the International Workshop on Registration of Farmers' Varieties*. Bioversity International/Oxfam Novib. ISBN 978-92-9255-123-0.

<https://cgspace.cgiar.org/handle/10568/101227>

### **Climate Change and Seed System Interventions Impact on Food Security and Incomes in East Africa**

Gloria Otieno; Robert John O. Ogola; Tobias Recha; Jemal N. Mohammed; Carlo Fadda (2022). MDPI Otieno, G., R. J. O. Ogola, T. Recha, J. N. Mohammed, and C. Fadda. 2022. "Climate Change and Seed System Interventions Impact on Food Security and Incomes in East Africa." *Sustainability* 14(11): 6519. *Sustainability* 14(11), 6519.

<https://doi.org/10.3390/su14116519>

### **Unlocking genebanks for farmer resilience: Assessing the impact of 'Germplasm User Groups' in enhancing farmers' access to diversity**

Michael Heaton; Nestor Jamora; Owusu Asamoah; Daniel T. Demie; Bashir K. Oladimeji; Nchimunya Mwansa; Tobias O. Recha (2025). Cambridge University Press Heaton, M., N. Jamora, O. Asamoah, D. T. Demie, B. K. Oladimeji, N. Mwansa, and T. O. Recha. 2025. "Unlocking genebanks for farmer resilience: Assessing the impact of 'Germplasm User Groups' in enhancing farmers' access to diversity." *Plant Genetic Resources*

<https://doi.org/10.1017/S1479262125100178>

### **Germplasm User Groups as Bridges to the National Genebank of Kenya**

Tobias Okando Recha; Matthew Heaton; Nelissa Jamora (2025). Global Crop Diversity Trust (Crop Trust) Recha, T. O., M. Heaton, and N. Jamora. 2025. "Germplasm User Groups as Bridges to the National Genebank of Kenya." Genebank Impacts Brief No. 18 (June 2025): 4 pp. Global Crop Diversity Trust. Genebank Impacts Brief No. 18 (June 2025), 4 pp.

[https://www.croptrust.org/fileadmin/uploads/croptrust/Documents/Fellowships/Impact\\_Briefs/Impact\\_Brief\\_18\\_-\\_SFR\\_Kenya.pdf](https://www.croptrust.org/fileadmin/uploads/croptrust/Documents/Fellowships/Impact_Briefs/Impact_Brief_18_-_SFR_Kenya.pdf)