

CURRICULUM VITAE

1.1 Personal Profile

1.1.1 Personal Details

Name: Macharia Ibrahim Ndegwa,
Title/Qualification: PhD
Department: Agricultural Economics
Designation/Position: Senior Lecturer

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Area of Specialization:

- Agricultural and environmental economics
- Impact assessment of agricultural technologies and innovations
- Agribusiness strategy and value chain development

Research Interests:

- Social- economic and environmental impact of agricultural technologies
- Development and management of circular agrifood value chains
- Environment and Natural Resource Economics.
- Externalities of agricultural production and development projects
- Agricultural value chain analysis and market systems development
- Gender-responsive agricultural innovations and technology adoption
- Food security, agribusiness innovation, and rural transformation

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<http://www.ku.ac.ke/schools/agriculture/index.php/faculty-profiles/faculty/89-faculty/10-dr-ibrahim-macharia>

google

<https://scholar.google.com/citations?user=UU9E9c4AAAAJ&hl=en>

scholar:

Publons: <https://publons.com/researcher/4969705/ibrahim-ndegwa-macharia/>

Linkedin:

<https://www.linkedin.com/in/ibrahim-macharia-998166156/?trk=pub-pbmap&originalSubdomain=ke>

Research Gate: <https://www.researchgate.net/profile/Ibrahim-Macharia>



1.1.2 Academic & Professional Qualifications

1.1.2.1 Academic

- 2007- 2010: Ph.D. Major in Agricultural Economics, Leibniz University Hanover, Germany. Institute of Development and Agricultural Economics.
Research topic: Negative Externalities of Pesticide Use in the Vegetable Sub- Sector in Kenya.
- 2005- 2005: M.Sc. Course work units in Agricultural and applied Economics, University of Nairobi, Kenya. Department of Agricultural Economics.
- 2002- 2004: M.Sc. Subject- Horticulture Economic, Jomo Kenyatta University of Agriculture and Technology, Kenya. Department of Horticulture.
Research topic: Economic Impact Assessment of Classical Biological Control of Diamondback Moth in Cabbage production in Kenya.
- 1996- 2000: B.Sc. Horticulture, Jomo Kenyatta University of Agriculture and Technology, Kenya. Department of Horticulture.

1.1.2.2 Professional Courses

- 2023: Certificate in Impact Evaluation, Partial Equilibrium Models, Advanced general equilibrium models. International Food Policy Research Institute (IFPRI)-Food Security portal (USA)
- 2023: Certificate in Driving Financial Inclusion Through a Policy Framework for Healthy and Sustainable Food Systems, Korea International Cooperation Agency (Korea)
- 2022: Certificate in climate change and sustainable development (CCSD). Environment Protection Training and Research Institute (India)
- 2021: Certificate in Doctoral supervision and management. Stellenbosch University (South Africa)
- 2019: Certificate in Innovation and Incubation Management. Neu-Ulm University of Applied Sciences, Germany
- 2018: Certificate in HE Innovate Assessment Tools, Kenyatta University, Kenya.
- 2013: Certificate in Teaching Methodology, Kenyatta University, Kenya.
- 2012: Certificate in Student on Entrepreneurial Promotion (STEP), Kenyatta University, Kenya.
- 2006: Certificate in Standards and Trade: Challenges and Opportunities for Developing Agro-Food Trade, World Bank institute, USA.

1.1.2.3 Skills

Language:	➤ Mother tongue (s) Kikuyu and Swahili ➤ English:- Proficient user in both Understanding and speaking- ➤ German:- Understanding Independent user , speaking Independent user
Organizational / managerial:	➤ Academic and administrative leadership, former head of the department, Kenyatta University. ➤ Good organizational skills gained when working with international bodies like GTZ, icipe, CIAT ➤ Vast experience in community and expert groups' facilitation and moderation

	➤ Eager to learn new things and always striving for continued excellence. ➤ Negotiation skills in Natural Resources conflicts and Resource Mobilization gained when working with GIZ, ICIPE, Biodiversity international, and WFP. ➤ Ability to work independently and in teams combined with cultural and gender sensitivity gained when working at international bodies.
Job-related skills:	➤ Vast experience in socio-economic impact and need assessments using modern evaluation theoretical and econometric methods including the application of the partial- and general-equilibrium economic models. ➤ Experience in the development and application of gender responsive research instruments. ➤ Good experience in the development of training curriculum and conducting training for farmer groups through farmer field schools (FFS) and also training of trainers for FFS ➤ Good experience in design and implementation of household surveys, participatory methods of research (PRA and RRA) and field experimentation. ➤ Vast experience in community and expert groups' facilitation and moderation. ➤ Administration, coordination, and implementation of programmes, projects, and Familiar with Logical Framework analysis (LFA). ➤ Teaching and Training skills of agricultural experts and students. ➤ Experience in project design, preparation, implementation and evaluation. ➤ Experience in the development and application of gender responsive research instruments. ➤ Solid background in micro and macro-economic theory. ➤ Experience in household and intra-household economics (theory and applied). ➤ Strong knowledge of crops and animals husbandry and bio-economic interactions. ➤ Certified Student Training for Entrepreneurial Promotion (STEP) Trainer. ➤ Countries of experience Kenya, Uganda, Tanzania, Ethiopia, DRC Congo, Rwanda, Malawi, Burundi, Zimbabwe, Zambia, Germany.
Digital skills:	➤ Proficient user of SPSS, STATA, SAS, LINDO, DREAM and NLOGIT, EPINFO. ➤ Proficient user of Microsoft Office (word processing, excel, power point, access) ➤ Database application

1.1.3 Employment History

2011- Present: Senior Lecturer Department of Agricultural Economics, Kenyatta university, Kenya.

- Provide academic leadership in the department.
- Train and supervise graduate and undergraduate students in the courses: Environment and Natural Resource Management, Production Economics, Land Economics, Agribusiness Strategic Management, Sustainable livelihood analysis, Consumer Demand Analysis.
- Develop research proposals, strategic plans, and annual work plans for the department.
- Supervise post graduate research work.
- Training students, researchers, and collaborators on current quantitative and qualitative techniques, as well as data management, analysis, and reporting, in

- order to assess the impact of development projects.
- Coordinate research activities within the department.
- Curriculum development.
- Support in preparing research reports, policy briefs and other project publications
- External Examiner- University of Embu, University of Nairobi, Jomo Kenyatta University of Agriculture and Technology, Pwani University, Kenya.
- Networking and development of partnerships with stakeholders.
- Reviewer and Commission Member for Future Bora Initiative- Kenya Youth Employment and Opportunities Project (KYEOP), DAAD- in-Country/In-Region Programme.
- Professional mentor in Chandaria Business Innovations and Incubation Center (BIIC)

01/04/2007- 30/06/2010: Research associate, Institute of Development and Agricultural Economics, Leibniz University of Hannover, Germany.

- PhD research work.
- Trained and supervised graduate and undergraduate students at the Institute in the courses: - Project planning and evaluation, and introductory courses in agricultural economics.
- Published scientific papers and presented research results at international conferences.

01/01/2003- 30/10/2006: Senior research assistant, International Centre of Insect Physiology and Ecology (*icipe*), Kenya.

- Facilitated and implemented participatory development of programs with farmers, researchers and extension personnel involved with biological control of Diamondback moth in Kenya and Tanzania.
 - Carried out both ex-ante and ex-post studies aimed at assessing:
 - The socio-economic impact of biological control of Diamondback moth in Kenya and Tanzania.
 - The socio-economic impact of training small scale farmers on Integrated Pest Management and Good Agricultural Practices through farmer field schools.
 - The impact of Radio awareness programmes for export horticulture producers and out grower groups to comply with Global-GAP protocols.
 - Designed and implemented over time field trials to assess yield loss due to Diamondback moth on cabbage and kale production.
 - Conduct a baseline study to establish a comprehensive technology inventory and database.
 - Prepared monthly, quarterly, bi-annual and annual technical and program accomplishment reports.
 - Advisory role to farmers and the Ministry of Agriculture field extension workers on matters related to plant protection and record keeping.
 - Provided support in the planning, organization and facilitation of farm field days and demonstration sites.
 - Assisted in the Development of private sector service providers for export horticulture.
 - Provided technical support in research activities within *icipe* impact assessment unit.
 - Wrote quarterly and annual reports.
 - Prepared briefs and presentations for the head of the program.
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01/01/2000-30/03/2001: Research assistant, GTZ- Integration of Tree Crops into Farming System Project, Kenya.

- Designed and implemented research in a study to compare conventional and tissue culture banana propagation methods in Kenya.
 - Assisted in conducting trainings and in the design of impact assessment in the dissemination of mango propagation techniques in Keiyo and Embu districts.
 - Advisory role to farmers on matters related to crops and animals protection.
 - Carried out research on importance of indigenous trees in North Horr, Kenya, with special emphasis on doum palm fruit tree.
 - Provided support in the planning, organization and facilitation of farm field days.
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1.1.4 Achievements

1. Supervised over 30 postgraduate students (2011–2024), many of whom now serve in academia, NGOs, and government institutions across Africa.
2. Served as Chair of the Department of Agricultural Economics at Kenyatta University (2017–2020).
3. Principal Investigator in over 10 major research projects, funded by organizations including DAAD, WFP, ICIPE, CIAT, ICRISAT, AATF, and Bioversity International (2006–2025).
4. Developed academic partnerships with global institutions such as Leibniz University of Hannover, Neu-Ulm University of Applied Sciences, University of Applied Sciences Weihenstephan-Triesdorf, (2010–present).
5. Served as External Examiner at leading universities including JKUAT, UoN, Pwani, Moi, Embu, and University of Eldoret since 2013.
6. Active Professional Mentor at the Chandaria Business Innovations and Incubation Center (BIIC) since 2019, guiding over 12 startups.
7. Designed and conducted multiple national and regional socio-economic and environmental impact assessments, particularly in the areas of IPM, drought-tolerant crops, aquaponics, and biofertilizer use.

1.2 Publications

1.2.1 Referred Journals

1. Mulungu, K., **Macharia, I.**, Abro, Z., Kassie, M., and Tanga, C. (2023). Entomophagy in western Kenya: consumption patterns and the role of psychological and socio-cultural factors. *Journal of Insects as Food and Feed* (published online ahead of print 2023). <https://doi.org/10.1163/23524588-20220143>.
2. Awuor, F.J., **Macharia, I.**, and Mulwa, R. (2023) Adoption and intensity of integrated agriculture aquaculture among smallholder fish farmers in Kenya. *Front. Sustain. Food Syst.* 7:1181502. doi: 10.3389/fsufs.2023.1181502
3. Eze, A.V., **Macharia, I.** and Ngare, L. (2023). Economic viability of value-added cashew products processed in Southeast zone, Nigeria. *Heliyon* 9(4):e12791. DOI: 10.1016/j.heliyon.2022.e12791.
4. Ajer, B., Ngare, L. and **Macharia, I.** (2023), "Drivers of innovation in the agro-food micro, small and medium enterprises of Uganda", *Journal of Agribusiness in Developing and*

5. Midingoyi, S G and Kassie, M B and Affognon, H D and **Macharia, I** and LeRu, B (2023). Estimating the impact of biological control of maize stemborers on productivity and poverty in Kenya: a continuous treatment approach. *Environment, Development and Sustainability*. 01-22. ISSN 1573-2975.
6. Abro Z, **Macharia I**, Mulungu K, Subramanian S, Tanga CM and Kassie M (2022) The potential economic benefits of insect-based feed in Uganda. *Front. Insect Sci.* 2:968042. doi: 10.3389/finsc.2022.968042
7. Eze, A.V., **Macharia, I.**, Ngare, L., 2022. Factors Influencing Value Addition to Cashew Products Processed in the South-East Zone, Nigeria: A Multinomial Logistic Regression Approach. *European Journal of Agriculture and Food Sciences* 4(1):61-71.DOI: 10.24018/ejfood.2022.4.1.448.
8. Willy, D.K., **Macharia, I.**, Marechera, G., Muinga, G., Mugo, S., Rotich, R., Oniang'o, R. K., Karanja, J., Obunyali, Caleb O., Oikeh, S. O., 2021. Economic impact of DroughtTEGO® hybrid maize in Kenya. *Journal of Development and Agricultural Economics*, 13(3), 215-226. <https://doi.org/10.5897/JDAE2021.1274>.
9. Taremwa NK. **Macharia, I.**, Bett, E., 2021. Characterization of smallholder farmers and agricultural credit institutions in Rwanda, *Afr. J. Food Agric. Nutr. Dev.* 2021; 21(1): 17343-17364 <https://doi.org/10.18697/ajfand.96.19585>
10. Taremwa NK. **Macharia, I.**, Bett, E., 2021. Impact of agricultural credit access on agricultural productivity among maize and rice smallholder farmers in Rwanda, *Journal of Agribusiness, and Rural Development*, 59(1), pp. 39-58. doi: 10.17306/J.JARD.2021.01341.
11. Mwangi, B., **Macharia, I.**, Bett, E., 2021. Ex-post Impact Evaluation of Improved Sorghum Varieties on Poverty Reduction in Kenya: A Counterfactual Analysis. *Social Indicators Research*, <https://doi.org/10.1007/s11205-020-02577-4>
12. Mwangi, B., **Macharia, I.**, Bett, E., 2020. Analysis of economic efficiency among smallholder sorghum producers in Kenya. *Journal of Development and Agricultural Economics*, 12(2), 95-103. <https://doi.org/10.5897/JDAE2020.1162>.
13. Mwangi, B., **Macharia, I.**, Bett, E., 2020. A multi-dimensional adoption approach for improved sorghum varieties in eastern Kenya: a climate change adaptation perspective, *Climate and Development*, DOI: 10.1080/17565529.2020.1763237
14. **Macharia, I.**, 2020. Dangerous pesticide use: what must be done to protect the health of Kenyans. *Theconversation.com/africa/health*. <https://theconversation.com/dangerous-pesticide-use-what-must-be-done-to-protect-the-health-of-kenyans-142114>
15. Muinga, G., Marechera, G., **Macharia, I.**, Mugo, S., Rotich, R., Oniang', R., Karanja, J., Obunyali, C., Oikeh S.O., 2019. Adoption of climate-smart DroughtTEGO® varieties in Kenya. *African Journal of Food, Agriculture, Nutrition and Development*, 19 (4), pp.15090-15108.
16. Marechera, G., Muinga, G., **Macharia, I.**, Mugo, S., Rotich, R., Oniang', R., Karanja, J., Obunyali, C., Oikeh S.O., 2019. Impact of DroughtTEGO® hybrid maize variety on agricultural productivity and poverty alleviation in Kenya. *African Journal of Agricultural Research*, 14(34), pp. 1833-1844. <https://doi.org/10.5897/AJAR2019.14237>
17. Marechera, G., **Macharia, I.**, Muinga, G., Mugo, S., Rotich, R., Oniang', R., Karanja, J., Obunyali, C., Oikeh S.O., 2019. Duration analysis of DroughtTEGO® hybrid maize adoption in Kenya. *Agricultural Science Research Journal*, 9 (5), 47 – 60.
18. Ruth, C., **Macharia, I.**, Alice, W. Charles, A.O.M., Zeyaur, R.K., 2018. Ex- post economic analysis of push-pull technology in Eastern Uganda. *Crop Protection*, 112: 356–362.
19. Luvanda, A.M., **Macharia, I.**, Chikamai, B.N., Wambugu, S.K., 2017. Socio-economic factors influencing collection of gum myrrh and opoponax from the wild in Wajir County, Kenya. *International Journal of Recent Scientific Research*, 8(5), 17165-17172.

20. Ruth, C., **Macharia, I.**, Alice, W. Charles, A.O.M., Zeyaur, R.K., 2017. Impact assessment of push-pull pest management on incomes, productivity, and poverty among smallholder households in Eastern Uganda. *Food Security* 9 (6): 1359–1372.
21. Soul-kifouly G.M., **Macharia, I.**, Ong’amo, G., Abonyo, E., Ogola, G., De Groote, H., LeRu, B., 2016. Assessing the long-term welfare effects of the biological control of cereal stem-borer pests in East and Southern Africa: Evidence from Kenya, Mozambique, and Zambia. *Agriculture, Ecosystems & Environment* (230): 10-23.
22. **Macharia, I.**, 2015. Pesticides and Health in Vegetable Production in Kenya. *BioMed Research International* Volume 2015. <http://dx.doi.org/10.1155/2015/241516>
23. Ndungu, S., **Macharia, I.**, Kahuthia-Gathu, R., Githaiga, W.R., 2013. Impact of Organic Vegetable Production System in Kiambu and Kajiado Counties of Kenya. *Journal of Environmental Science and Engineering A2* (4). 256-266.
24. Karani-Gichimu, C., **Macharia, I.**, Mwangi, M., 2013. Assessment of passion fruit orchard management and farmers’ technical efficiency in Central-Eastern and North-Rift Highlands, Kenya. *Journal of Economics and Sustainable Development* 5(2): 183-190.
25. Ouma, E., **Macharia, I.**, Birachi, E., Garming, H., Nyagaya, M., Pypers, P., Ochieng, J., Blomme, G., van Asten, P., Vanlauwe, B., 2013. *Agricultural technology diffusion and adoption in banana and legume based systems of Central Africa*. Routledge Group, ISBN: 9780415532730.
26. Karani-Gichimu, C., **Macharia, I.**, Mwangi, M., 2013. Assessment of Input-Output Transformation in Purple Passion Fruit Production in Central-Eastern and North-Rift, Kenya. *Current Research Journal of Economic Theory*, 5(2): 32-37.
27. **Macharia, I.**, 2012. Indirect Costs of Pesticide Use in the Vegetable Production in Kenya. In: Mithöfer, D. and H. Waibel (eds.) *African Vegetable Production and Marketing: Socio-Economic*. CAB International, UK. ISBN: [9781845936495](https://doi.org/10.1017/9781845936495).
28. **Macharia, I.**, Mithöfer, D. Waibel, H., 2012. Pesticide handling practices by vegetable farmer in Kenya. *Environment, Development and Sustainability*, 15, (4): 887-902.
29. **Macharia, I.**, Mithöfer, D., Waibel, H., 2009. Potential environmental impacts of pesticides use in the vegetable sub-sector in Kenya. *African Journal of Horticultural Sciences*, 2: 138-151.
30. **Macharia, I.**, Löhr, B., De Groote, H., 2005. Assessing the potential impact of biological control of *Plutella xylostella* (diamondback moth) in cabbage production in Kenya. *Crop Protection*, 24: 981-989.

1.2.2 Books Chapters

1. Ouma, E., **Macharia, I.**, Birachi, E., Garming, H., Nyagaya, M., Pypers, P., Ochieng, J., Blomme, G., van Asten, P., Vanlauwe, B., 2013. *Agricultural technology diffusion and adoption in banana and legume based systems of Central Africa*. Routledge Group, ISBN: 9780415532730.
2. **Macharia, I.**, 2012. Indirect Costs of Pesticide Use in the Vegetable Production in Kenya. In: Mithöfer, D. and H. Waibel (eds.) *African Vegetable Production and Marketing: Socio-Economic*. CAB International, UK. ISBN: [9781845936495](https://doi.org/10.1017/9781845936495).

1.2.3 Referred Learning Modules

1. KBT 309: Agribusiness Strategy and Marketing Plans- Dr. Ibrahim Macharia & Dr. Erick Bett.
2. KBT 419: Agricultural land economics- Dr. Ibrahim Macharia & Dr. Erick Bett.
3. KBT 433: Financial management for Agribusiness- Dr. Ibrahim Macharia & Dr. Gabriel Mwenjeri.
4. KBT 803: Strategic Agribusiness- Dr. Ibrahim Macharia & Dr. Erick Bett.

1.2.4 Reviewed Conference Papers

1. **Macharia, I.,** Orr, A., 2012. Potential economic and poverty impact of improved chickpea technologies in Ethiopia. Presentation at International Conference of Agricultural Economists, August, 2012 Iguaçu, Brazil.

1.2.5 Consultancy and Project Reports

1. **Macharia, I.,** Bett, E., Ngetich, F., Kiboi, M., 2017. Assessing and analysing the level of adoption of *DroughtTEGO*[®] hybrid maize seed in Kenya. A report to African Agricultural Technology Foundation (AATF).
2. **Macharia, I.,** Orr, A., 2014. Cereals consumption pattern in Tanzania. A report to International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Kenya.
3. **Macharia, I.,** Orr, A., Schipmann, C., 2012. Cereals consumption pattern in Kenya. A report to International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Kenya.
4. **Macharia I.,** Garming H., Ouma E., Birachi E., Ekesa B., de Lange M., Blomme G., Van Asten P., Van-Lauwe B., Kanyaruguru J., Lodi-Lama J., Manvu J., Bisimwa C., 2012. Assessing the Impact of Consortium for Improving Agriculture-based Livelihoods in Central Africa (CIALCA) Technologies on Crop productivity and Poverty in the great lakes region of Burundi, the Democratic Republic of Congo (DR Congo) and Rwanda. A report to Bioversity International, Italy.
5. **Macharia, I.,** Orr, A., Simtowe, F., 2011. Potential Economic and Poverty Impact of Adoption of Improved chickpea technologies in Ethiopia. A report to International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Kenya.
6. **Macharia, I.,** Orr, A., Simtowe, F., 2011. The Adoption and Profitability of Chickpea Technologies in Ethiopia. A report to International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Kenya.
7. Nyambo, B., **Macharia, I.,** Maundu J., 2006. Promotion of Integrated Pest Management for Vegetable Production in the Eastern Arc Mountains & East African Coastal forest mosaic Biodiversity hotspots. A report to Bio-vision Foundation, Switzerland.
8. **Macharia, I.,** Akivaga, F., Ndenga, E., 2004. Impact of Radio Awareness Campaign for Export Horticulture Producers and Out grower Groups to comply with EUREPGAP protocols: Mid- term Evaluation of the Radio Awareness Programme. A report to BMSDP-DFID Crop Protection Programme.
9. **Macharia, I.,** Nyambo, B., 2003. Impact of Integrated Crop Management Training on Maragua Ridge Mango Production: Baseline data on Knowledge, Practice, Marketing, and Production Economics. A report to Bio-vision –ICIPE- IPM Project on Mango Production: ICIPE, Kenya.
10. **Macharia, I.,** 2002. Socio- economic Base-line Information of Smallholder French beans Producers in Kenya. A report to USAID–ICIPE IPM Project on French beans and Okra, Nairobi: ICIPE, Kenya.
11. **Macharia, I.,** Eckert, M., 2002. Comparative Study of Tissue culture and Conventional sucker Propagation Methods of Banana (*musa spp.*) at Farm levels in Kenya. In: J.M., Wesonga et al. (ed.) Proceedings of the Horticulture Seminar on Sustainable Horticultural Production in the Tropics, Oct 2001. Jomo Kenyatta University of Agriculture and Technology, Kenya.
12. **Macharia, I.,** Britta, M., 1999. Importance of Indigenous Tree in North Horr (Marsabit District). A report to GTZ- Integration of Tree Crops into Farming System Project, Nairobi, Kenya.

1.2.6 Conference Papers

1. Macharia, I., 2024. Cost-Efficient Aquaponic Technologies for Sustainable Urban Agriculture in Kenyan Cities. Paper accepted for presentation at the Water Security and Climate Change Conference (WSCC24) held on 09–11 October 2024 in Giessen, Germany.
2. Macharia, I., 2023. Enhancing Doctoral Supervision: A Multiplication Project. Presentation at CREST Networking event held on 19–22 September 2023 at Stellenbosch University, South Africa.
3. **Macharia, I.**, 2021. Social-Economic Impacts of sand dam in Semi-Arid Agricultural Areas of Kenya. Paper accepted for online presentation at International Water Security and Climate Change Conference 01-04, March 2021 Vietnam Academy for Water Resources (VAWR) in Hanoi, Vietnam.
4. **Macharia, I.**, 2019. Social economic Impact assessment of solar powered- micro irrigation system in Kenya Paper accepted for oral presentation at International Water Security and Climate Change Conference 28-30 October 2019, Universidad Autónoma de San Luis Potosí, Mexico.
1. **Macharia, I.**, 2019. Digital agribusiness empowers small scale farmers in Kenya. Contributed Paper accepted for oral presentation at International WHZ-Zwickau and DAAD/BMZ Alumni Seminar 2019, “Digitalization plus Industry 4.0” 29th April - 5th May 2019 in Zwickau, Germany.
2. **Macharia, I.**, 2018. Postharvest losses (PHLs) in Kenya. Contributed Paper accepted for oral presentation at International DAAD Alumni Seminar 2018, “Sustainable Food Production and Food Security in Developing Countries – Quality Management and Resource Use Efficiency along Agri-Value Chains” 11–19 March 2018 in Witzenhausen, Germany.
5. **Macharia, I.**, Mithöfer, D. and Waibel, H., 2013, Health Effects of Pesticide Use among Vegetable farmer in Kenya. Invited paper presented at the 4th International Conference of the African Association of Agricultural Economists, September, 22-25, 2013, Hammamet, Tunisia.
1. **Macharia, I.**, 2013. Post-Harvest losses in Kenya. Paper presented at the Post-Harvest losses in Africa- Analytical review and synthesis workshop, February, 2013, ICIPE/ Kenya
2. **Macharia, I.**, 2013. Postharvest losses and postharvest innovations on key horticultural crops – Kenya. Contributed Paper accepted for oral presentation at AGRA Expert and Stakeholder Workshop on Waste and Spoilage Issues, Challenges Facing Smallholder Farmers and Potential Intervention Points, April, 2013, Machakos, Kenya.
3. **Macharia, I.**, 2013. Planning and Implementing Plans. Presentation at Transformational Leadership in Agribusiness workshop, December 2013, Ethiopia.
6. **Macharia, I.**, Orr, A., 2012. Potential economic and poverty impact of improved chickpea technologies in Ethiopia. Presentation at International Conference of Agricultural Economists, August, 2012 Iguaçu, Brazil.
4. **Macharia, I.**, 2012. Planning and Implementing Plans. Presentation at STEP training workshop, March, 2012. Kenyatta University, Kenya.
3. **Macharia, I.**, 2010. External Costs of Pesticide Use in the Vegetable Production in Kenya. In: J.M., Wesonga et al. (ed.) Proceedings of the Horticulture Seminar on Sustainable Horticultural Production in the Tropics, Dec 2008. Jomo Kenyatta University of Agriculture and Technology, Kenya.

7. **Macharia, I.,** Mithöfer, D. and Waibel, H., 2009. Determinants of Pesticide Handling Practices in Vegetable Production in Kenya. Paper presented at Tropentag, October, 2009, Hamburg/ Germany.
8. **Macharia, I.,** 2008. External Costs of Pesticide Use in the Vegetable Production in Kenya. Contributed Paper presented at the Horticulture Seminar on Sustainable Horticultural Production in the Tropics, December 2008.
4. **Macharia, I.,** 2005. Economic Impact Assessment of Training French beans Smallholders on Integrated Pest Management (IPM) and Good Agricultural Practices (GAP) through farmer field school. In: J.M., Wesonga *et al.* (ed.) Proceeding of fourth Workshop on Sustainable Horticultural Production in the Tropics, Nov 2004. Moi University, Kenya.
5. **Macharia, I.,** Mithöfer, D. and Löhr, B 2004. Update of the Ex-ante Socio-economic Impact Assessment of the Biological Control of *Plutella xylostella* (Diamondback moth) in Kenya. Paper presented at Organic Agriculture in Development, the fifth International Workshop on Diamondback Moth and Other Crucifer Insect Pests. Beijing, China.
9. **Macharia, I.,** Löhr,B., De Groote, H., 2004. Ex-ante Economic Impact Assessment of the Introduction of the Diamondback Moth Parasitoid, *Diadegma semiclausum*, in Kenya. XV International Plant Protection Congress, May 2004. Beijing, China.
6. **Macharia, I.,** Löhr, B. 2004. Economic Impact Assessment of Training French beans Smallholders on Integrated Pest Management (IPM) and Good Agricultural Practices (GAP) through farmer field school. Contributed Paper accepted for oral presentation at fourth Workshop on Sustainable Horticultural Production in the Tropics, November 2004, Nairobi, Kenya.
7. **Macharia, I.,** 2004. Economic Impact assessment of training French beans smallholders on Integrated Pest Management (IPM) and good agricultural practices (GAP) through farmer field school. Paper presented at the fourth Workshop on Sustainable Horticultural Production in the Tropics, Nov 2004, Moi University, Kenya.
8. **Macharia, I.,** Eckert, M., 2001. Comparative study of tissue culture and conventional sucker propagation methods of banana (*musa spp.*) at farm levels in Kenya. Paper presented at Horticulture Seminar on Sustainable Horticultural Production in the Tropics, held on, Oct 2001, Jomo Kenyatta University of Agriculture and Technology, Kenya.

1.2.7 Other Publications

1. **Macharia, I., 2020.** Dangerous pesticide use: what must be done to protect the health of Kenyans. Theconversation.com/africa/health. <https://theconversation.com/dangerous-pesticide-use-what-must-be-done-to-protect-the-health-of-kenyans-142114>

1.2.8 Scholarly Presentations at Conferences/Workshops/Seminars

No.	Presenter	Title of Paper presented	Country/ City	Date of Conference
1	Macharia	Cost-Efficient Aquaponic Technologies for Sustainable Urban Agriculture in Kenyan Cities	Germany, Giessen	Water Security and Climate Change Conference (WSCC24) held on 09 – 11 October 2024
2	Macharia	Enhancing Doctoral Supervision: A Multiplication Project for 2023	South Africa, Stellenbosch	CREST Networking: 19 -22 September 2023, at Stellenbosch University in South Africa.

No.	Presenter	Title of Paper presented	Country/ City	Date of Conference
3	Macharia	Social-Economic Impacts of sand dam in Semi-Arid Agricultural Areas of Kenya.	Hanoi, Vietnam.	International Water Security and Climate Change Conference 01-04, March 2021
4	Macharia	Social economic impact assessment of solar powered-micro irrigation system in Kenya	San Luis Potosí/ Mexico	International Water Security and Climate Change Conference. 28th- 30th October, 2019
5	Macharia	Digital agribusiness empowers small scale farmers in Kenya.	Zwickau/ Germany.	International DAAD Alumni Seminar 2019. Digitalization plus Industry 4.0” 29th April - 5th May 2019.
6	Macharia	Postharvest losses (PHLs) in Kenya	Witzenhausen / Germany	International DAAD Alumni Seminar 2018. “Sustainable Food Production and Food Security in Developing Countries – Quality Management and Resource Use Efficiency along Agri-Value Chains “March 11th - 19th, 2018
7	Macharia	Cereals consumption patterns in Tanzania	Kenyatta university/ Kenya	“Building a new Generation of Agricultural Scientists” held on December 2014
8	Macharia	Planning and Implementing business Plans	Ethiopia	Transformational Leadership in Agribusiness workshop, December 2013
9	Macharia	Postharvest losses and postharvest innovations on key horticultural crops - Kenya	Machakos/ Kenya	AGRA Expert and Stakeholder Workshop on Waste and Spoilage Issues, Challenges Facing Smallholder Farmers and Potential Intervention Points, April, 2013
10	Macharia	Post-Harvest losses in Kenya	ICIPE/ Kenya	Post-Harvest losses in Africa- Analytical review and synthesis workshop, Feb, 2013
11	Macharia	Planning and Implementing Plans	Kenyatta university/ Kenya	STEP training workshop, March, 2012
12	Macharia	Potential economic and poverty impact of improved chickpea technologies in	Iguaçu/ Brazil	International Conference of Agricultural Economists, August, 2012

No.	Presenter	Title of Paper presented	Country/ City	Date of Conference
Ethiopia				
13	Macharia	Determinants of Pesticide Handling Practices in Vegetable Production in Kenya.	Hamburg/ Germany	Tropentag, Oct, 2009.
14	Macharia	External Costs of Pesticide Use in the Vegetable Production in Kenya.	Nairobi/ Kenya	Proceedings of the Horticulture Seminar on Sustainable Horticultural Production in the Tropics, Dec 2008.
15	Macharia	Ex-ante Economic Impact Assessment of the Introduction of the Diamondback Moth Parasitoid, <i>Diadegma semiclausum</i> , in Kenya.	Beijing/ China	XV International Plant Protection Congress May, 2004.
16	Macharia	Economic Impact Assessment of Training French beans Smallholders on Integrated Pest Management (IPM) and Good Agricultural Practices (GAP) through farmer field school.	Nairobi/ Kenya	Proceeding of fourth Workshop on Sustainable Horticultural Production in the Tropics, Nov 2004.

1.3 Quality teaching, learning and mentorship

1.3.1 Student Evaluations

1. Consistently received positive feedback from both undergraduate and postgraduate students for effective teaching, mentorship, and supervision.

1.3.2 Trainings in Higher Education

1. 2023 – Certificate in Impact Evaluation (Partial and General Equilibrium Models), IFPRI – USA
2. 2023 – Certificate in Driving Financial Inclusion through Food Systems Policy, KOICA – South Korea
3. 2022 – Certificate in Climate Change and Sustainable Development, EPTRI – India
4. 2021 – Certificate in Doctoral Supervision and Management, Stellenbosch University – South Africa
5. 2019 – Certificate in Innovation and Incubation Management, Neu-Ulm University of Applied Sciences – Germany

6. 2018 – Certificate in HEInnovate Assessment Tools, Kenyatta University – Kenya
7. 2013 – Certificate in Teaching Methodology, Kenyatta University – Kenya
8. 2012 – Certified Trainer in Student Training for Entrepreneurial Promotion (STEP), Kenyatta University – Kenya
9. 2006 – Certificate in Standards and Trade for Agro-Food, World Bank Institute – USA

1.3.3 Supervision of Postgraduate Students

1.3.3.1 Ongoing Supervisions

Masters

No	Name of student	THESIS TITLE	Year
1	Alex Waithaka	ECONOMIC ANALYSIS OF INLAND FISH FARMING IN MACHAKOS AND KIAMBU COUNTIES: A VALUE CHAIN APPROACH	Second year
2	Nyaga Munyi Gatumta	USEFULNESS AND EFFECTIVENESS OF MOBILE PHONE IN ACQUIRING MARKET INFORMATION AMONG SMALLHOLDER FARMERS IN EMBU NORTH DISTRICT, KENYA	Second year
3	Amos Okello	IMPACT ASSESSMENT OF IMPROVED PIGEONPEA VARIETIES ADOPTION IN TANZANIA	Second year
4	Murage Henry Ngatia	AN ESTIMATION OF THE TECHNICAL EFFICIENCY OF THE RICE FARMS IN EMBU COUNTY OF KENYA	Second year
5	Ogemma Annete	INVESTMENT DECISION VARIABLES BY SMALL HOLDER FARMERS IN BUSIA COUNTY	Second year
7	Wathuta David	ASSESSMENT OF THE ADOPTION AND IMPACT OF ICT IN AGRICULTURAL MARKETING BY SMALLHOLDER FARMERS IN NYANDARUA COUNTY	Second year
8	Margaret Nthenge N.	EFFICIENCY OF GREEN GRAMS MARKETING IN KITUI COUNTY, KENYA	Second
9	Leah Nabwire Wandera	STRATEGIES AGAINST SHOCKS AMONG AGROPASTORALISTS IN ISIOLO AND KITUI COUNTIES, KENYA	Second
12	Billy Nyagaya	GENDER ANALYSIS IN MANGO PRODUCTION AND MARKETING IN EMBU SUB-COUNTY, KENYA	Defended, awaiting graduation
10	Joseph Karanja	COMPARATIVE ECONOMIC ANALYSIS OF SMALL-SCALE GREENHOUSE TOMATOES FARMING USING HYDROPONIC AND ON SOIL IN KIAMBU COUNTY, KENYA	Second
11	Laban Bii	ANALYSIS OF SOCIO ECONOMIC FACTORS AFFECTING PASTORAL FIELD SCHOOLS CAPACITY DEVELOPMENT ON LIVESTOCK PRODUCTIVITY IN KAJIADO EAST SUB COUNTY,KAJIADO COUNTY, KENYA.	Second
12	Guyo Dida	FACTORS INFLUENCING THE IMPACT OF	Second

No	Name of student	THESIS TITLE	Year
		CLIMATE CHANGE ON AGRICULTURAL PRODUCTIVITY IN SAKU SUB-COUNTY, MARSABIT COUNTY, KENYA.	
13	Norreen Hunja	EFFECTS OF CLIMATE AND NON-CLIMATE SHOCKS ON LIVELIHOODS OF AGROPASTORAL HOUSEHOLDS IN KITUI AND ISIOLO COUNTIES, KENYA	Second
14	Susan Njoki	SOCIO-ECONOMIC IMPACT ASSESSMENT OF AGRIBUSINESS CLUSTERS ON SMALLHOLDER SORGHUM PRODUCTIVITY AND INCOMES IN THARAKA NITHI COUNTY, KENYA	Second
15	Benjamen Musungu	ANALYSIS OF POST-HARVEST LOSSES ALONG THE POTATO VALUE CHAIN IN NYANDARUA COUNTY	Second
17	Josia Orina	DETERMINANTS OF SUGARCANE PRODUCTION EFFICIENCY IN NAROK COUNTY, KENYA	Defended, Awaiting graduation
18	Davies Tanyassis	ASSESSING THE TECHNICAL EFFICIENCY OF SMALLHOLDER DAIRY FARMING IN KIAMBU COUNTY	Awaiting defence
19	Viola Kenduiywa	THE IMPACT OF THE GLOBAL CRISIS ON FERTILIZER CONSUMPTION IN SUB-SAHARAN AFRICA.	Second
20	Jesee Tabitha Wanjira	ECONOMIC IMPACT OF ON FARM DIVERSIFICATION OF ENTERPRISES AMONGST THE SMALL HOLDER TEA FARMERS IN RUNYENJES, EMBU COUNTY KENYA	Second
21	Eucebia Ingaso	SOCIO-ECONOMIC FACTORS AFFECTING AGRICULTURAL TECHNOLOGY ADOPTION AND MARKET PARTICIPATION AMONG SMALLHOLDER RICE FARMERS IN MWEA IRRIGATION SCHEME, KIRINYAGA COUNTY, KENYA.	Second
22	Boaz Changwony Korir	EX-ANTE IMPACT OF GENETICALLY ENGINEERED SORGHUM ON HOUSEHOLD LIVELIHOOD IN ELGEYO MARAKWET COUNTY, KENYA	First
23	Samantha roger	Assessing the Impact of Alternative Livestock Markets on Household Welfare in Turkana County, Kenya	First
24	Margaret Wambui Ngetha	BUSINESS DEVELOPMENT SERVICES (BDS) AND THE PERFORMANCE OF AGRIBUSINESSES: THE CASE OF SMALL AND MEDIUM ENTERPRISES (SMES) IN KENYA	First

PhD

No	Name of student	THESIS TITLE	Year
1	Basil Ajer	SMALL AND MEDIUM ENTERPRISE INNOVATIONS: PRECURSORS IN THER I-FOOD	Defended, Awaiting

No	Name of student	THESIS TITLE	Year
		VALUE CHAIN IN CENTRAL AND EASTERN UGANDA	graduation
2	Wuor Fonda Jane	PRODUCTION RISK AND WELFARE OF SMALLHOLDER ADOPTERS OF INTEGRATED AQUACULTURE-AGRICULTURE IN WESTERN AND CENTRAL REGIONS OF KENYA	Awaiting defence

1.3.3.2 Completed

Master

S/No	Name of student	Thesis title	Year Graduated
1	Shadrack Bor	ECONOMIC ANALYSIS OF TOMATO PRODUCTION EFFICIENCY IN KAJIADO COUNTY, KENYA	July 2023
2	Lawrence Kinoti	FARMER PARTICIPATORY EVALUATION OF MAIZE VARIETIES IN KENYA	December 2022
3	Kitheka mundumwui	EX-ANTE ASSESSMENT OF WILLINGNESS TO PAY FOR LARVAE SPY AS CEREALS' PEST EARLY WARNING ACOUSTIC TECHNOLOGY IN KENYA	December 2022
4	Kainda Isabella	ASSESSMENT OF THE PERFORMANCE OF SMALLHOLDER DAIRY FARMING IN MERU COUNTY, KENYA	July 2019
5	Elijah Wamunyu	ANALYSIS OF ACCESSIBILITY AND IMPACT ON PRODUCTIVITY AMONG SMALL HOLDER FARMERS IN KAHURO SUBCOUNTY , MURANGA COUNTY OF KENYA	December 2017
6	Lucy W. Muriithi	IMPACT OF CERTIFICATION OF SMALL HOLDER COFFEE FARMERS, IN EMBU COUNTY, KENYA	July 2016
7	Samuel Kiruku Ndungu	ECONOMIC ANALYSIS AND APPRAISAL OF SMALLHOLDER ORGANIC VEGETABLE PRODUCTION SYSTEM IN KIAMBU AND KAJIADO COUNTIES OF KENYA	July 2015
8	Nkurunziza Issa	AN ANALYSIS OF SOCIO-ECONOMIC FACTORS AFFECTING FARMERS' PARTICIPATION IN VERTICAL INTEGRATION OF THE COFFEE VALUE CHAIN, RWANDA.	July 2014
9	Macharia Christopher Mwangi	AN ANALYSIS OF CONTRACT FARMING OF COCONUT IN KENYA.	July 2014
10	Scolastica Mwikali Wambua	ANALYSIS OF SEED LOAN APPROACH AND SOCIAL NETWORKS IN IMPROVED BEAN SEED DISSEMINATION IN BUSIA COUNTY BUNYALA AND SAMIA DISTRICTS OF KENYA	December 2013

S/No	Name of student	Thesis title	Year Graduated
11	Charles Gichimu Karani	EVALUATION OF PRODUCTION EFFICIENCY OF SMALL SCALE PURPLE PASSION FRUIT FARMERS TOWARDS IMPROVED LIVELIHOODS IN EASTERN AND NORTH-RIFT REGIONS, KENYA	December 2013

PhD

S/No	Name of student	Thesis title	Year Graduated
1	Scolastica Mwikali Wambua	ANALYSIS OF SEED LOAN APPROACH AND SOCIAL NETWORKS IN IMPROVED BEAN SEED DISSEMINATION IN BUSIA COUNTY BUNYALA AND SAMIA DISTRICTS OF KENYA	July 2023
2	Nathan Kanuma Taremwa	IMPACT OF AGRICULTURAL FINANCE ACCESS ON THE LIVELIHOOD OF SMALLHOLDER FARMERS IN THE EASTERN AND NORTHERN PROVINCES OF RWANDA	December 2022
3	EZE Anayochukwu Victor	ASSESSMENT OF VALUE ADDITION TO CASHEW PRODUCTS IN SOUTH EAST, NIGERIA	December 2022
4	Ngigi Obadiah Hinga	INCENTIVES FOR ECOSYSTEM STEWARDSHIP; AN ANALYSIS OF AGRICULTURAL CREDIT AS AN INCENTIVE FOR SOIL AND WATER MANAGEMENT IN SASUMUA WATERSHED, KENYA	July 2022
5	Backson Mwangi	THE IMPACT OF IMPROVED SORGHUM VARIETIES ON POVERTY REDUCTION AMONG RURAL FARMING HOUSEHOLDS IN THARAKA NITHI COUNTY, KENYA	July 2021
6	Albert Luvanda Makee	IMPROVING PRODUCTION, UTILIZATION AND MARKETING OF GUM OPPPONAX (HAGAR) IN WAJIR COUNTY, KENYA	December 2019
7	Ruth Chepchirchir	SOCIAL- ECONOMIC IMPACT OF INTEGRATING PUSH-PULL TECHNOLOGY IN SMALLHOLDER CEREAL-LIVESTOCK FARMING SYSTEMS IN UGANDA	December 2018
8	Midingoyi Soul	ECONOMICS OF BIOLOGICAL CONTROL OF CEREAL STEM BORERS IN EASTERN AFRICA: EVIDENCES FROM MAIZE AND SORGHUM PRODUCTION IN KENYA	August 2018

1.4 Professional/consultancy

1.4.1 Networks/Collaborations

1. Participated in the Annual General Meeting for the Integrated and Circular Technologies for Sustainable City Region FOOD Systems in Africa; (INCiTIS) HORIZON-CL6-2022-

24. Funded by the European Commission- In University of Masuku –Gabon from 30 march- 5th April 2025.
2. Attended the CREST Networking event at Stellenbosch University, South Africa, and gave a presentation on “Enhancing Doctoral Supervision: A Multiplication Project for 2023”, from September 19–22, 2023.
3. Contributed to the International DAAD Alumni Seminar 2019 on “Digitalization plus Industry 4.0” in Zwickau, Germany, by presenting the paper “Digital Agribusiness Empowers Small Scale Farmers in Kenya”, from April 29 – May 5, 2019.
4. Contributed to the XV International Plant Protection Congress held in Beijing, China, by presenting research on “Ex-Ante Economic Impact Assessment of the Introduction of the Diamondback Moth Parasitoid, *Diadegma semiclausum*, in Kenya”, in May 2004.
5. Delivered a research paper titled “Social-Economic Impacts of Sand Dam in Semi-Arid Agricultural Areas of Kenya” at the International Water Security and Climate Change Conference held in Hanoi, Vietnam, from March 1–4, 2021.
6. Delivered insights on “Postharvest Losses (PHLs) in Kenya” during the DAAD Alumni Seminar on “Sustainable Food Production and Food Security in Developing Countries” held in Witzenhausen, Germany, from March 11–19, 2018.
7. Disseminated research titled “Potential Economic and Poverty Impact of Improved Chickpea Technologies in Ethiopia” at the International Conference of Agricultural Economists in Iguacu, Brazil, in August 2012.
8. Engaged in expert discussions and shared findings on “Post-Harvest Losses in Kenya” during the Analytical Review and Synthesis Workshop held at ICIPE, Kenya, in February 2013.
9. Engaged in the International Water Security and Climate Change Conference held in San Luis Potosí, Mexico, and shared findings from the paper “Social Economic Impact Assessment of Solar Powered-Micro Irrigation System in Kenya”, from October 28–30, 2019.
10. Engaged stakeholders with a paper titled “External Costs of Pesticide Use in the Vegetable Production in Kenya” during the Horticulture Seminar on Sustainable Horticultural Production in the Tropics, held in Nairobi, Kenya, in December 2008.
11. Facilitated a session on “Planning and Implementing Plans” during the STEP Training Workshop held at Kenyatta University, Kenya, in March 2012.
12. Made a technical presentation on “Postharvest Losses and Postharvest Innovations on Key Horticultural Crops – Kenya” during the AGRA Expert and Stakeholder Workshop in Machakos, Kenya, in April 2013.
13. Participated as a speaker during the Transformational Leadership in Agribusiness Workshop held in Ethiopia and discussed “Planning and Implementing Business Plans”, in December 2013.
14. Presented a paper titled “Cost-Efficient Aquaponic Technologies for Sustainable Urban Agriculture in Kenyan Cities” during the Water Security and Climate Change Conference (WSCC24) held in Giessen, Germany, from October 9–11, 2024.
15. Presented a paper titled “Economic Impact Assessment of Training French Beans Smallholders on Integrated Pest Management (IPM) and Good Agricultural Practices (GAP) through Farmer Field School” at the Fourth Workshop on Sustainable Horticultural Production in the Tropics, held in Nairobi, Kenya, in November 2004.
16. Presented a study on “Cereals Consumption Patterns in Tanzania” at the conference “Building a New Generation of Agricultural Scientists” held at Kenyatta University, Kenya, in December 2014.
17. Took part in the Tropentag Conference held in Hamburg, Germany, and presented a study titled “Determinants of Pesticide Handling Practices in Vegetable Production in Kenya”, in October 2009.

1.4.2 Editorial Boards/Referee for professional periodicals

1. 2022: Scientific member to 1st biennial international conference on bridging the gap between society, science and industry
2. 2024: Abstracts Reviewer for RUFORUM'S second Triennial Conference
3. 2024: Reviewer for 3 papers KIPPRA publication review Committee

1.4.3 Consulting for Organizations/Institutions

2023- 2023: icipe

- Led, designed and implemented; field surveys, expert/farmer workshops and expert interview aimed at: Analyzing the Environmental and Social Economic impact of Black Solidier Flies farming in Kenya and Uganda Using Life Cycle Analysis (LCA)- ICIPE

2016- 2018. African Agricultural Technology Foundation (AATF)

- Led, designed and implemented studies aimed at assessing:
 - Impact of *DroughtTEGO*® hybrid maize variety on agricultural productivity and poverty alleviation in Kenya.
 - The level of adoption of *DroughtTEGO*® hybrid maize seed in Kenya.
 - Duration analysis and dissemination pathways of *DroughtTEGO*® hybrid maize in Kenya.
 - *Ex-post* Economic Impact of *DroughtTEGO*® hybrid maize in Kenya.

2013- 2014. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT).

- Analysed cereals consumption patterns in Tanzania

2013- 2013. International Centre for Tropical Agriculture (CIAT)

- Led, designed and implemented; field surveys, expert/farmer workshops and expert interview aimed at analysing cross Border Bean Seed and Grain Trade in Eastern and Southern Africa.

2011-2012. Biodiversity International.

- Designed and implemented; field surveys, expert/farmer workshops, and expert interview aimed at assessing the Impact of Consortium for Improving Agriculture based Livelihoods in Central Africa (CIALCA) Technologies in Burundi, the Democratic Republic of Congo, and Rwanda.
- Facilitated collaborative learning discussions with study partners in quarterly project planning meetings and implemented agreed-upon adaptation.
- Created goodwill in the community by developing trusted relationships and hiring locals.
- Provided expertise related to concept, knowledge and knowledge gaps related to CIALCA technologies transfer.

2010- 2011. International Crops Research Institute for the Semi-Arid Tropics (ICRISAT)

- Contributed to the design, implementation and paper write-ups on studies aimed at assessing the:
 - Potential economic and poverty impact of investment in improved chickpea technologies in Ethiopia.
 - The adoption and profitability of chickpea technologies in Ethiopia

1.4.4 Membership to acad/prof bodies

1. 2013- to date: International Association of Agricultural Economists
2. 2011- to date: African Association of Agricultural Economists
3. 2007- to date: Young Professionals' Platform for Agricultural Research for Development (YPARD)
4. 2007- to date: German Academic Exchange Service (DAAD) alumni
5. 2006- to date: World Bank Institute alumni
6. 2003- to date: Horticultural Association of Kenya

1.4.5 Editorial/Peer Review

1. 2024: Reviewer for papers entitled: “Integrating Adaptive Forest Management and Transition To Alternative Energy Sources In Kenya's Tea Industry and Assessing Technical Efficiency of Firms Dealing in Forest Primary Products And The Demand In Forestry Value Chain: KIPPRA publication review Committee 2024.
2. 2021: Reviewer and Commission Member for the Future Bora Initiative under the Kenya Youth Employment and Opportunities Project (KYEOP), contributing to the evaluation and selection of innovative solutions aimed at creating sustainable employment opportunities for youth in Kenya.
3. 2021-2024: External Reviewer and Member of the DAAD Selection Committee for the DAAD In-Country/In-Region Scholarship Programme in Eastern Africa, providing independent assessment and expert recommendations on scholarship applications across the region.
4. 2017 to present: Professional Mentor at the Chandaria Business Innovations and Incubation Center (BIIC), actively involved in reviewing and evaluating startup ideas and innovations, while providing strategic guidance to early-stage entrepreneurs and incubatees.

1.4.6 External Examiner to universities

1. University of Nairobi – Department of Agricultural Economics (2014 – Present): Examine PhD and Master's theses, offering independent evaluation and expert critique to support academic rigor and research excellence.
2. University of Embu (2018 – 2024): Contribute as an external examiner for PhD and Master's theses and also review undergraduate and postgraduate examinations within agricultural and applied economics programs.
3. University of Eldoret (2019 – Present): Serve as an external examiner for postgraduate theses as well as undergraduate and postgraduate coursework and examinations, ensuring consistency and quality in academic standards.
4. Pwani University (Dates not specified): External examiner for graduate theses (PhD and Master's), with responsibilities including evaluation of research quality and relevance in agricultural-related disciplines.

5. Moi University (Dates not specified): Engage as an external examiner for PhD and Master's theses, providing independent review and scholarly input on research outputs.
6. Jomo Kenyatta University of Agriculture and Technology (JKUAT) (2013 – Present): External examiner for both PhD and Master's theses in Agricultural Economics, providing scholarly assessment and academic quality assurance for postgraduate research.

1.5 Administrative and Responsibilities

1.5.1 Recognized university administrative positions

1. 2017 to 2020: Chairperson department of agricultural economics
2. 2014 to 2016: exam coordinator department of agribusiness management and Trade.
3. 2011: Acting Chairperson, Agribusiness and trade
4. 2019: Acting dean, school of agriculture and enterprise development

1.5.2 Other responsibilities in the University

1. 2023 to date: Departmental Research, Innovation and Outreach Coordinator
2. 2023 to date : Member of Kitui disciplinary committee
3. 2021- to date: Departmental coordinator of post graduate studies
4. 2021 to date: Departmental chair of selection committee.
5. 2021- to date: Departmental curriculum review chairman
6. 2021- to date: School post graduate member
7. 2021 to date: Member of the Departmental Linkage, Research& Resource Mobilization Committee
8. 2021 to date: Departmental Academic Advisory Committee.
9. 2019 to date: Professional mentor in Chandaria Business Innovations and Incubation Center (BIIC)
10. 2012 to date: Student on Entrepreneurial Promotion (STEP) trainer in Kenyatta university and in the counties
11. 2012 to 2015: Departmental chair of selection committee.
12. 2012- to 2015: Departmental curriculum review chairman
13. 2019 to date: Professional mentor in Chandaria Business Innovations and Incubation Center (BIIC)
14. 2014: development of BSc. Agricultural economic programme.
15. 2014: university- industry linkage board member.
16. 2013-2015: school of agriculture and enterprise development linkages board member.

1.6 Community Engagements and Other Contributions

1.6.1 Research funding

1. 2022–2026: *Integrated and Circular Technologies for Sustainable City Region FOOD Systems in Africa (INCiTIS-FOOD)* –(HORIZON-CL6-2022-FARM2FORK-01-14): Funded by the European Union (Living Lab Manager).
2. 2024: *Exploring Innovative and Cost-Effective Circular Economy-Based Food System Value Chain Business Models in Germany for Application in Kenya* – Individual Research Project: Funded by DAAD- 2023 (Principal Investigator).
3. 2023: *Strengthening Sustainable Food Value Chains: Lessons from Kenya and Germany on Circular Economy and Climate Change Adaptation Strategies* – Study & Research Visit for Groups of

Foreign Students to Germany: – Individual Research Project: Funded by DAAD- 22 (Principal Investigator).

4. 2022: *Cost-Effective and Innovative Agricultural Value Chain Business Models* – Individual Research Project: Funded by HNU-2022 (Principal Investigator).
5. 2021–2022: *Towards Reducing Poverty, Vulnerability and Enhancement of Livelihood Strategies of Pastoralists in North Eastern Kenya* – Institutional Research Project: Funded by the Vice Chancellor's Grant – 2021 (Principal Investigator).
6. 2007–2010: *Externalities of Pesticide Use in the Vegetable Sub-sector in Kenya* – PhD Research: Funded by BMZ & DAAD (Principal Investigator).
7. 2006–2007: *Socio-Economic Impact of Training Small Scale Farmers on Integrated Pest Management and Good Agricultural Practices through Farmer Field Schools* – Project led by ICIPE: Funded by USAID (Impact Evaluator).
8. 2006: *Impact of Radio Awareness Programmes for Export Horticulture Producers and Outgrower Groups to Comply with Global-GAP Protocols* – Public Engagement Initiative: Funded by BMSDP–DFID (Impact Evaluator).
9. 2006–2007: *Promotion of Integrated Pest Management for Vegetable Production in the Eastern Arc Mountains and East African Coastal Forest Mosaic Biodiversity Hotspots* – Regional Initiative by ICIPE: Funded by BIOVISION (Impact Evaluator).
10. 2004–2006: *Impact Assessment of Diamondback Moth Bio-control Project for Eastern and Southern Africa* – Regional Project: Funded by BMZ, Germany (Impact Evaluator).
11. 2003: *Impact of Integrated Crop Management Training on Maragua Ridge Mango Production: Baseline Study on Knowledge, Practice, Marketing, and Production Economics* – Project by ICIPE: Funded by USAID (Impact Evaluator).
12. 2002–2003: *Comparative Study of Tissue Culture and Conventional Sucker Propagation Methods of Banana (*Musa spp.*) at Farm Levels in Kenya* – Applied Research Project: Funded by GTZ–ITFSP (Principal Investigator).
13. 1999–2000: *Economic Use of Indigenous Trees in North Horr, Kenya, with Special Emphasis on Doum Palm Fruit Tree* – Joint Study: Funded by GTZ–ITFSP (Co-Investigators).

1.6.2 Community Outreach

1. 2019 to date: Board of Management (BOM), Senior Chief Mukira Secondary School, Othaya, Nyeri county
2. 2017, to date: Board of Management (BOM), Sukari Presbyterian academy, Nairobi Presbytery-Nairobi County.
3. 2020-date: Church Deacon – in P.C.E.A Kahawa Sukari –Sukari Parish, Nairobi North Presbytery.
4. 2018-date: audit committee member – in P.C.E.A Kahawa Sukari –Sukari Parish, Nairobi North Presbytery
5. 2022-date: Brigade chairperson – in P.C.E.A Kahawa Sukari –Sukari Parish, Nairobi North Presbytery

1.6.3 Professional Affiliation & portfolios

1. 2022: Steering Committee Member-
2. 2013- to date: International Association of Agricultural Economists
3. 2011- to date: African Association of Agricultural Economists
4. 2007- to date: German Academic Exchange Service (DAAD) alumni
5. 2006- to date: World Bank Institute alumni
6. 2003- to date: Horticultural Association of Kenya

1.6.4 Recognitions awards and honors

1. 2025 – Best Stand in Research and Development, INCiTIS-FOOD Project at Nairobi agricultural show. Showcased a circular economy model using: Kitchen waste to feed Black Soldier Fly (BSF), BSF as fish feed, Fish waste and BSF frass for crop farming, BSF liquid fertilizer in hydroponic systems.
2. 2022 & 2024 – Reviewer for RUFORUM and KIPPRA publications
3. Presented research at international conferences in Germany, Brazil, China, South Africa, Vietnam, and Mexico

2 REFERENCES

1. **Prof Bernard K. Njehia.** School of Agriculture, and Enterprise development, Kenyatta University. P.O. Box 43844-00100, Nairobi, Kenya.
E-mail: njehia.bernard@ku.ac.ke
2. **Prof. Dr. Dagmar Mithoefer.** Humboldt-Universität zu Berlin. Thaer-Institute of Agricultural and Horticultural Sciences, Invalidenstr. 42, 10115 Berlin, Germany.
E-mail: dagmar.mithoefer@hu-berlin.de
3. **Dr. Hugo DeGroote.** The International Maize and Wheat Improvement Center (CIMMYT). PO Box 1041 Village Market-00621, Nairobi, Kenya.
Email: h.degroote@cgiar.org