

**RESUME, URBANUS N. MUTWIWA, PHD.,
ASSOCIATE PROFESSOR
AGRICULTURAL AND BIOSYSTEMS ENGINEERING
COLLEGE OF ENGINEERING AND TECHNOLOGY
JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

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CONTACTS

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| UNIVERSITY EDUCATION | UNIVERSITY EDUCATION 01.10.2004 to 07.12.2007: PhD. in Horticultural Sciences (Biosystems Engineering), Gottfried Wilhelm Leibniz University Hannover, Germany. Graduated on 07.12.2007; Grade “(Summa Cum Laude)” 01.08.2002 to 30.09.2004: Master of Science in International Horticulture (Horticultural Engineering), Gottfried Wilhelm Leibniz University Hannover, Germany. Graduated in 2004 with First Class Honours (Summa Cum Laude) 07.01.1992 to 20.12.1996: Jomo Kenyatta University of Agriculture and Technology, Kenya: Bachelor of Science in Agricultural Engineering. Graduated in 1997 with Upper second class Honours degree. |
| PROFESSIONAL TRAINING / COURSES | PROFESSIONAL TRAINING / COURSES 05/2019: Graduate Supervision in the 21 st Century Workshop, Kenya DAAD Scholars Association, Nairobi 05/2019: Environmental and Social Impact Assessment (Refresher), Environment Institute of Kenya, Nairobi 04/2019: Environmental Impact Assessment for Upstream Oil and Gas, Operations, United Nations Environment Global Network on Environment and Oil & Gas, Switzerland 03/2019: Applying the Mitigation Hierarchy to Manage Biodiversity Issues-an Overview of International Best Practice, Nairobi 03/2017: Quality Management Systems ISO 9001:2015 and Environment Management Systems ISO 14000: 2015 Lead Auditor 02/2017: Integrated management system ISO 9001:2015 and 14001:2015 implementers course, Kenya Bureau of Standards 11/2012: Hazard Analysis Critical Control Points (HACCP) Principles and Audit Techniques, Better Training for Safer Food, Birmingham, UK. 07/2012: Quality Management Systems ISO 9001:2008 internal auditor, Kenya Bureau of Standards 10/2009: Environment Impact Assessment & Audit, Kenya Cleaner Production Centre 06/2009: Strategic Leadership Development Program, Kenya Institute of Administration 06/2008: Sustainable Sanitation, University of Life Sciences, Aas, |

| | |
|---------------------------|---|
| | <p>Norway.</p> <p>08/2007: Project Cycle Management, Humboldt University Berlin.</p> <p>09/2007: Conflict Prevention and Conflict Management, Humboldt University, Berlin.</p> <p>05/2004: Horticultural Production CHAINS-it 2004 course, Angers University, France.</p> <p>08/2001: Certificate, Coffee Factory management from Kenya Coffee College.</p> |
| BASIC EDUCATION | <p>BASIC EDUCATION</p> <p>Secondary Education</p> <p>02/1987 to 11/1990: Pope Paul VI Junior Seminary, Machakos, Kenya Kenya Certificate in Secondary Education (KCSE)</p> <p>Primary Education</p> <p>01/1979 to 12/1986: Tusunini Primary School, Makueni district Kenya Certificate of Primary Education (KCPE)</p> |
| HONOURS AND AWARDS | <p>HONOURS AND AWARDS</p> <ol style="list-style-type: none"> 06/2005: Max-Eyth-Nachwuchsfoederung prize by the Association of German Engineers 10/2004: PhD scholarship by the German Research Foundation, DFG. 08/2002: MSc scholarship by the German Academic Exchange Service (DAAD) |
| EMPLOYMENT HISTORY | <p>EMPLOYMENT HISTORY</p> <p>07/2017 to date: Associate Professor, Agricultural and Biosystems Engineering, School of Biosystems and Environmental Engineering College of Engineering and Technology, Jomo Kenyatta University of Agriculture and Technology, Kenya</p> <p>08/2015 to 09/2017: Founder Dean, School of Biosystems and Environmental Engineering College of Engineering and Technology, Jomo Kenyatta University of Agriculture and Technology, Kenya</p> <p>07/2017 to Date: Associate Professor, Agricultural and Biosystems Engineering, Jomo Kenyatta University of Agriculture and Technology, Kenya</p> <p>08/2010 to Aug 2015: Head of Biomechanical and Environmental Engineering Department, Jomo Kenyatta University of Agriculture and Technology, Kenya</p> <p>04/2013 to 07/2017: Senior Lecturer, Biomechanical and Environmental Engineering Department, Jomo Kenyatta University of Agriculture and Technology, Kenya</p> <p>8/2009 to 4/2013: Lecturer, Biomechanical and Environmental Engineering Department, Jomo Kenyatta University of Agriculture and Technology, Kenya</p> <p>05/2008 to 8/2009: Assistant Director of Research, Department of Research Management & Development, Ministry of Higher Education, Science and Technology, Republic of Kenya.</p> |

EMPLOYMENT HISTORY

01/2008 to 07/2008: Part-time lecturer, Biomechanical and Environmental Engineering Department, Jomo Kenyatta University of Agriculture and Technology, Kenya.

01/2008 to 07/2008: Part-time lecturer, Department of Engineering and Technology, Kenyatta University, Kenya.

10/2004 to 12/2007: Research Associate, Biosystems and Horticultural Engineering Section, Leibniz University of Hannover, Germany.

01/2005 to 10/2006: Project Researcher, Protected Cultivation Project, Asian Institute of Technology, Thailand.

08/1998 to 08/2002: Coffee Estate Manager, Sasini Tea & Coffee, Kenya.

01/1997 to 03/1998: Irrigation Engineer, Booth Irrigation Limited, Nairobi, Kenya.

~~03/2001:~~ Volunteer Lecturer, Limuru Girls Centre, Kenya.

PROFESSIONAL AFFILIATIONS

PROFESSIONAL AFFILIATIONS

1. Member, National Quality institute, Kenya Bureau of Standards
2. Member Environmental Institute of Kenya
3. Lead Expert EIA/EA, National Environment Management Authority
4. Member, Kenya Society for Environmental, Biological and Agricultural Engineers
5. Member, German Alumni Water Network
6. Member, Horticultural Association of Kenya
7. Graduate Member, Engineers Board of Kenya
8. Member, Institute of Engineers of Kenya

LEADERSHIP

LEADERSHIP

1. July 2020 to Date: Member Curriculum Development and Accreditation Committee, KISM/KISEB
2. May 2020 to Date: Board Member, Kenya Institute of Supplies Examinations Board
3. Aug 2018 to Date: Chairperson, Partnership, Education and Collaborations Committee, Environment Institute of Kenya
4. July 2017 to Date: Council member, Environmental Institute of Kenya
5. August 2018 to date: Member, Board of Academic Quality, Jomo Kenyatta University of Agriculture and Technology
6. August 2018 to date: Chairman Committee of Non Related Persons, Africert Limited
7. May 2013 to Date: Member Committee of Non Related Persons, Africert Limited
8. August 2013 to 2018: Member of the Management Board, Water Research and Resource Centre
9. August 2015 to September 2017: Founder Dean, School of Biosystems and Environmental Engineering, JKUAT
10. February to April 2013: Acting Dean, School of Mechanical, Materials and Manufacturing Engineering, JKUAT
11. August 2010 to August 2015: Head of Department, Biomechanical and Environmental Engineering, JKUAT
12. 1998-2002: Manager, Sasini Tea and Coffee Limited,

**SPECIAL
ACHIEVEMENTS
FOR JKUAT**

13. 1994-1996: Organising Secretary, International Movement of Catholic Students (IMCS), JKUAT Chapter
14. 1994-1996: Secretary, Society of Agricultural Engineers (SAE), JKUAT

SPECIAL ACHIEVEMENTS FOR JKUAT

1. Sought, identified, negotiated and facilitated establishment of Rehav Biogas production unit in JKUAT.
2. Developed and spearheaded accreditation of the BSC Agricultural and Biosystems Engineering curriculum by the Engineers Board of Kenya.
3. Facilitated acquisition of equipment for bathymetric survey from United States Department of Agriculture, USA.
4. Facilitated establishment of the water Resources and Research Centre with support from German Academic Exchange Services (DAAD)
5. Successfully negotiated the signing and implementation of the following memorandums of Understanding:
 - JKUAT-Hochschule Geissenheim University, Germany: Prepared and submitted two proposals
 - JKUAT-Dominion Farms Ltd: Currently engaging our students on full time employment and providing industrial attachment positions.

**SPECIAL
ASSIGNMENTS**

SPECIAL ASSIGNMENTS

1. April 2020 to date: **Member**, Academic Subcommittee in Oil and Gas, United Nations Oil and Gas program
2. March 2020: **Independent Expert Reviewer**, PASET Regional Scholarship and Innovation Fund (RSIF)
3. March 2020 to Date: **Reviewer**, African Journal of Food, Agriculture, Nutrition and Development (AJFAND)
4. March 2020 to date: **Reviewer**, Simulation: Transactions of the Society for Modelling and Simulation International
5. August 2019: **Reviewer**, Kenya Climate Smart Agriculture Project - World Bank project.
6. March 2018 to date: **Reviewer**, Journal of Sustainable Research in Engineering
7. March 2019 to Date: **External Examiner**, Department of Biosystems and Economics, University of Kabianga
8. September 2019 to date: **Member**, University Education Services technical committee, Kenya Bureau of Standards
9. September 2019 to date: **Member**, Coffee Technical subcommittee, Kenya Bureau of Standards
10. March 2018: **Judge**, University of Nairobi School of Engineering innovation (Dr. Patrick Musimba) prize
11. March 2017: **Judge**, University of Nairobi School of Engineering innovation (Dr. Patrick Musimba) prize
12. Since 2013, **Member** of the Committee of Non Related Persons, Africert Limited

13. Since 2012, **Member** of the Management Board, Water Resources and Research Centre, JKUAT
14. Since 2010, **Member** of the JKUAT Reception and Ushering Committee
15. **Member** of the Organising Committee of the United Nations South to South conference held 2009 in Nairobi

POST GRADUATE SUPERVISIONS

Doctor of Philosophy

Completed

1. Ms. Sylvia I. Murunga. Thesis Title: Isolation and Characterisation of Methanogenic Bacteria for Optimal Biogas Production from Brewery Wastewater, University of Nairobi *Graduated August 2017*).

On going

1. Eng. Samuel N. Njuguna. Thesis Title: Optimisation of an Integrated Solar and Biomass powered Drier: A technical and Economic Consideration *(On going)*.
2. Bonface Godwin Mukabane. Thesis Title: Potential of Biodiesel Production from Locally Available Autotrophic Microalgae *(On going)*.
3. Joseph Mbothu. Thesis Title: Use of Life Cycle Analysis Approach to Evaluate the Sustainability of Ethanol Production from Molasses and Sweet Sorghum *(On going)*.
4. Solomon Mulindi. Thesis title: Comparative evaluation of the performance of pot charcoal heater and composite solar heater in a passive brooder system on regulating temperatures for poultry chicks' development. (Case Study of Indigenous Chicken Chicks) *(On going)*.
5. Joan J. Maina. Thesis Title: Simulation and Optimization of an Evaporative Cooling System for Tomato Storage using Analytical Models and Computational Fluid Dynamics (Proposal)
6. Simon W. Mirara. Thesis Title: Optimisation of biodiesel production from black soldier fly larvae by transesterification process (Proposal)

Master of Science

1. Joel M. Mweu. Thesis Title: Evaluation of UV-Blocking Cladding Materials on Thin Layer Drying Kinetics of Tomatoes in a Greenhouse Solar Dryer (On going)
2. Elias W. Ngotho. Thesis Title: analysis of the quality dynamics of kales and tomatoes stored in a zero energy cooler (On going)
3. George P. Fayiah-Tumbay. Thesis Title: Optimization of evaporative cooling chamber using computational fluid dynamics, University of Nairobi (Completed, Awaiting graduation)
4. Mariana W. Muturi. Thesis Title: Greenhouse Gas Emission of Broiler and Layer Chicken Production Fed Insect-Based Feeds in Kenya,

POST GRADUATE SUPERVISIONS

POST GRADUATE SUPERVISIONS

**RESEARCH
FUNDS
ATTRACTED TO
THE UNIVERSITY**

- University of Nairobi (Ongoing)
5. Geoffrey Ogutu. Thesis Title: Assessing the effect of mix ratios on strength of composite building boards made of sugarcane bagasse and water hyacinth fibre (*Ongoing*)
 6. Ibrahim Sow. Thesis Title: Control of the indoor environment of a cold storage using artificial neural network (*Completed in February 2020, Awaiting Graduation*)
 7. Justus N. Omari. Thesis Title: Investigation of the Current Status of Electronic Waste and their Generation and Management: Case Study of Nairobi and Nyamira Counties (*Graduated June 2018*)
 8. Ishmail N. Onchoke. Thesis Title: The Potential and Characterisation of Rice Husks as an Alternative Energy Source; Case Study of Mwea Irrigation Scheme (*Graduated Nov 2018*).
 9. Maloi K. Stanley. Thesis Title: Reservoir Sedimentation and Potential Mitigation Measures in Ruiru Catchment , Kiambu County, Kenya (*Graduated in November 2018*)
 10. Michael M. Kamwere. Thesis Title: Thin Layer Drying Characteristics of High Moisture Content Vegetables in an Integrated Renewable Energy Drying System (*Graduated on 27.06.2017*).
 11. Joan J. Maina. Thesis Title: Evaluation of Greenhouse Gas Emissions from Small-scale Coffee Producers in Kiambu (Kenya) Using the Cool Farm Tool (*Graduated on 27.06.2017*).
 12. Cecilia W. Muriuki (2011-2015). Thesis Title: Potential of Banana Peels, Pumice and Charcoal to Adsorb Chromium Metal from Tannery Waste Water (*Graduated in 2016*).
 13. Meshack K. Korir. Thesis Title: Modelling, Development and Testing of a Charcoal Cooler for on-Farm Storage of Mangoes (*Graduated in 2015*).
 14. Hannah G. Ngugi (2011-2014). Thesis Title: Impacts of Water and Sanitation Activities on the Environment in the Upper Mara basin (*Graduated in 2014*).

FUNDED RESEARCH PROJECTS

1. **Topic:** Knowledge Co-Creation: Utilizing Japanese Technologies in ODA Projects on Greenhouse Horticulture for Local Farmers' Sustainable Farming in Kenya
Researchers: J. M. Wesonga, U. N. Mutwiwa, and IMG Partners (Japan)
Financing Institution: Japan International Cooperation Agency
Status: On-going since 2017
2. **Topic:** Switch Africa Green
Researchers: D. N. Sila (PI), U. N. Mutwiwa (coffee)
Financing Institution:
Status: On-going since 2018

**RESEARCH
FUNDS
ATTRACTED TO
THE UNIVERSITY**

3. **Topic:** Experimental test of elephant deterrents and ecological correlates of crop raiding, Kenya
Researchers: B. Schulte, G. Mwangi, U. N. **Mutwiwa** and L. von Hagen
Budget: USD 12,000 annually
Financing Institution: The International Elephant Foundation
Status: On-going since 2018
4. **Topic:** Development of an Appropriate Greenhouse (Complete with Cold Storage) for Sustainable Vegetable Production for Climate Change Mitigation and Socio-Economic Development in Kenya
Researcher(s): U.N. **Mutwiwa**, and J. M. Wesonga
Budget: KSh. 0.7 million
Financing Institution: JICA Africa-ai-Japan
Status: April 2018 to March 2019
5. **Topic:** Development of an Appropriate Greenhouse Technology for Sustainable Vegetable Production for Climate Change Mitigation and Socio-Economic Development in Kenya
Researcher(s): U.N. **Mutwiwa**, and J. M. Wesonga
Budget: KSh. 0.6 million
Financing Institution: JICA Africa-ai-Japan
Status: April 2017 to March 2018
6. **Topic:** Towards improved climate-smart agriculture, wildlife conflict mitigation, and resilient livelihoods in the Kasigau Corridor landscape, SE Kenya
Researcher(s): B. Schulte, G. Mwangi and, U. N. **Mutwiwa**
Budget: KSh. 2.7 million (USD 26920) annually
Financing Institution: Earthwatch Institute, USA
Status: On-going since 2016
7. **Topic:** Elephants and Sustainable Agriculture in Kenya
Researcher(s): B. Schulte, G. Mwangi and, U. N. **Mutwiwa**
Budget: KSh. 6,014,000 million (USD 60,140)
Financing Institution: Lounsbery Foundation
Status: 2016-2017 Completed
8. **Topic:** Energy Efficient Rural Food Processing Utilising Renewable Energy to Improve Rural Livelihoods
Researcher(s): Kanali, C. L., **Mutwiwa**, U. N., Kituu, G. N., Ronoh, E. K., Ndirangu, S. N., Mung'atu, J., Kamwere, M.
Budget: KSh. 14 million
Financing Institution: DFID
Status: Completed
9. **Topic:** Design, Performance Testing and Commercialization of Greenhouse Solar Dryer with Forced Convection Air System.

**RESEARCH
FUNDS
ATTRACTED TO
THE UNIVERSITY**

Researcher(s): Eng. S. N. Njuguna **U.N. Mutwiwa**, and Eng. Dr. G. M. Kituu, C. L. Kanali, M. Kamwere
Budget: KSh. 7 million
Financing Institution: National Council for Science & Technology
Status: On-going since 2014

10. **Topic:** Assessment of Sedimentation Status of Ruiru Reservoir, Central Kenya

Researcher(s): J. K. Sang, J. M. Raude, **U. N. Mutwiwa**

Budget: KSh. 4.5 million

Financing Institution: JKUAT

Status: On-going since 2014

11. **Topic:** Exploration of Inland and Marine Microalgae for Biofuel Production

Researcher(s): **U. N. Mutwiwa**, S. N. Ondimu, J. Odalo, J. Bosire, L. Wangai,

Budget: KSh. 7 million

Financing Institution: National Council for Science and Technology, Kenya

Status: On-going

12. **Topic:** Reservoir Sedimentation Measurement and Assessment in Kenya Pilot Project

Researcher(s): J. Sang, J.M. Gathenya, P.G. Home, **U.N. Mutwiwa**, J Dunbar, P. Allen, Moriasi, Steiner

Budget: USD 24000

Financing Institution: United States Department for Agriculture, Jomo Kenyatta University of Agriculture and Technology

Status: Completed 2015

13. **Topic:** Improvement in Mango Production and Value-Addition: towards Increased Marketing, Food Sustainability and Security

Researcher(s): D. Sila, **U. N. Mutwiwa**, J.W. Kaluli, F. Wanzala

Budget: KSh. 4.5 Million

Financing Institution: Jomo Kenyatta University of Agriculture and Technology

Status: Completed 2017

14. **Topic:** Evaluation of the Impacts of WASH Activities on the Environment in the Upper Mara Basin

Researcher(s): H. N. Ngugi, P. G. Home and **U. N. Mutwiwa**

Financing Institution: USAID Mara Basin Water Scholars Program, Florida International University and Global Water for Sustainability Program

Budget: USD 4,494

Status: Completed 2012

**RESEARCH
FUNDS
ATTRACTED TO
THE UNIVERSITY**

15. **Topic:** Development of system for producer gas powered CI

**PUBLICATIONS
IN PEER
REVIEWED
JOURNALS**

engine

Researchers: I. N. Onchoke, **U. N. Mutwiwa**, A.H.O Anyangu

Budget: KSH 1 Million

Financing Institution: National Council for Science and Technology, Kenya

Status: On-going

16. **Topic:** Design, Development and Testing of a Charcoal Cooler for Mangoes

Researchers: M. K. Korir, **U. N. Mutwiwa**, G. M. Kituu

Budget: KSh. 190,806

Financing Institution: National Council for Science and Technology, Kenya

Status: Completed 2015

17. **Topic:** Investigation of the Current Status of Electronic Waste and their Generation and Management: Case Study of Nairobi and Nyamira Counties

Researchers: J. Omari, J. T. Mailutha, **U. N. Mutwiwa**

Budget: Ksh. 180,000

Financing organisation: National Council for Science and Technology, Kenya

Status: On-going

18. **Topic:** Evaluating the Performance of Constructed Wetland to Treat Tannery Wastewater

Researchers: F. N. Kilonzo, U. N. **Mutwiwa**, J. Waweru

Budget: KSh. 1 Million

Financing Institution: National Council for Science and Technology, Kenya

Status: Completed

**PUBLICATIONS
IN PEER
REVIEWED
JOURNALS**

PUBLICATIONS IN PEER REVIEWED JOURNALS

1. To update!!

2. R. Lynn Von Hagen, R., Kasaine, S., Githiru, M., Amakobe, B., Mutwiwa, U. N., & B. A. Schulte (2020). Metal strip fences for preventing African elephant (*Loxodonta africana*) crop foraging in the Kasigau Wildlife Corridor, Kenya. *African Journal of Ecology*, John Wiley & Sons Ltd, J Ecol. 2020;00:1–6

3. Sow, I., Murimi, E., U. N. **Mutwiwa** (2020). Evaporative Cooler Climate Prediction Using Artificial Neural Network. *Journal of Sustainable Research in Engineering* 5(3): 113-127

4. Lynn H., Kassaine, S., Mwangi, G., Amakobe B., **Mutwiwa** U. N., B. Schulte (2019). A comparison of mitigation methods for preventing African elephant (*Loxodonta africana*) crop raiding in the Kasigau Wildlife Corridor, Kenya. *African Journal of Ecology* AFJE-19-164.

- (under review)
5. Mulindi, S. A., Kanali, C., Kituu, G., Ondiumu S., U. **Mutwiwa** (2019). Modelling Relationships between the Solar Energy, Trombe Wall Brooder System Parameters and the Brooding Characteristics of Indigenous Chicken. *International Journal of Advanced Engineering, Management and Science (IJAEMS)* 5 (5) 311-318
 6. Mulindi, S. A., Kanali, C., Kituu, G., Ondimu S., U. **Mutwiwa** (2019). Development of Computer Models for Simulating the Optimum Design Parameters of a passive Solar Heating Chicken Brooder System. *International Journal of Advanced Engineering, Management and Science (IJAEMS)* 5 (5) 304-311
 7. Ndirangu, S. N., Kanali, C. L, **Mutwiwa**, U. N., Kituu, G. M. (2017). A Model for Renewable Energy Based Agro-processing Technology Transfer. *Journal of Sustainable Research in Engineering* (2 (4), 111-120, 2016).
 8. Kiburi, F. G., **Mutwiwa**, U.N., Ronoh, E.K., Chemain, N., Yegon, H. K., (2017). Evaluating the Performance of Dehumidified Solar Drier in Drying of Pumpkin slices (*Cucurbita pepo*). *African Journal of Horticultural Sciences* 11:72-81.
 9. Mwangi, G., **Mutwiwa**, U. N., Kasaine, S., Schulte, B. (2017). A spanner in the works: Human elephant conflicts complicates the energy-food-Water nexus. *Frontiers in Environmental Science Journal* 5: 1-6 .
 10. Korir M. K., **Mutwiwa**, U. N., Kituu, G. M., Sila, D. N. (2017). Effect of near infrared reflection and evaporative cooling on quality of mangoes. *Agricultural Engineering International: CIGR Journal*, 19 (1) 162-168.
 11. Sang, J. K., Raude, J., M., **Mutwiwa**, U. N., Ochieng, F., (2016). Dual Echo Sounder Bathymetric Survey for Enhanced Management of Ruiru Reservoir Kenya. *Journal of Sustainable Research in Engineering* 3(4): 113-118
 12. Maloi, S. K., Sang, J. K., Raude, J. M., **Mutwiwa**, U. N., Mati, B. M., Maina, C. W. (2016). Assessment of Sedimentation Status of Ruiru Reservoir, Central Kenya. *American Journal of Water Resources* 4(4): 77-82.
 13. **Mutwiwa**, U. N., Tantau, H. J., Murunga, I. S., Elsner., B. V., Max, J. F. J. (2016). Effects of Near Infra Rad-Reflecting Greenhouse Roof Cover on Greenhouse Microclimate, Growth and Production of Tomatoes in Tropics. *AgricEngInt: CIGR Journal* 19(3):70-79.
 14. Murunga, I. S., Mbugu, O. D., Gitau, A. N., **Mutwiwa**, U. N., and I. N. Wekesa (2016). Isolation and characterization of methanogenic bacteria from brewery wastewater in Kenya. *African Journal of Biotechnology*, 15(47): 2687-2697.
 15. Max, J. F. J., Schmidt, L., **Mutwiwa**, U. N., Kahlen, K. (2016). Effects of Shoot Pruning and Inflorescence Thinning on Plant Growth, Yield

- and Fruit Quality of Greenhouse Tomatoes in a Tropical Climate. *Journal of Agriculture and Rural Development in the Tropics and Subtropics*, 117 (1): 45-56.
16. Onchoke, I. N., **Mutwiwa**, U. N., Hunja, M., Ochieng, F., (2016). Conversion of Rice Husks into an Energy Source through Gasification Technology. *International Journal of Science and Research*, 5(9): 1264-1268
 17. Murunga, I. S., Mbuge, O. D., Gitau, A. N., **Mutwiwa**, U. N., Wekesa, I. N. (2016). Characterisation of Brewery Wastewater and Evaluation of Its Potential for Biogas Production. *AgricEngInt: CIGR Journal Vol. 18:No.3*, 308-316.
 18. Omari, J. N., **Mutwiwa**, U. N., Mailutha, J. T. (2016). The current status and handling of E-waste in Kenya: A case study of Nairobi County. *Journal of Sustainable Research in Engineering*. 3(1): 22-28
 19. Kamwere, M., Kanali, C. L., **Mutwiwa**, U. N., Kituu, G. M. (2015). Thin layer drying Characteristics of Stinging Nettle (*Urticadioica L*) in Solar tunnel Dryer. *International Journal of Engineering Research and Technology*, ISSN 2278-0181, 4(2).
 20. Maina, J. J., **Mutwiwa**, U. N., Kituu, G. M., Githiru, M. (2015). Evaluation of Greenhouse Gas Emissions along the Smallholder Coffee Supply Chains in Kenya. *Journal of Sustainable Research in Engineering*, 2 (4): 111-120.
 21. Ngugi, H. N., Home, P. G., **Mutwiwa**, U. N. (2014). Impacts of Water and Sanitation activities on the environment in the upper Mara basin, *Civil and Environmental Research*, 6(1): 9-16.
 22. Muriuki W. C., **Mutwiwa**, U. N., Home, P. G. (2014). Potential of Banana Peels (*Musa Sapientum* Biomass) in Adsorption of Hexavalent Chromium: Equilibrium and Kinetic Study. *International Water Technology Journal* 4 (4).
 23. Muriuki W. C., **Mutwiwa**, U. N., Home, P. G., Kilonzo, F. N. (2014). Adsorption of Chromium (VI) from Aqueous Solution by Accacia Tree (*Accacia tortilis*) Charcoal. *Journal of Sustainable Research in Engineering*, 1 (3): 30-38.
 24. Korir, M. K., **Mutwiwa**, U. N., Kituu, G. M., Sila, D. N. (2014). Simulation of saturation efficiency and cooling capacity of an unloaded near infrared reflecting charcoal cooler for on-farm storage of mango fruits. *Journal of Sustainable Research in Engineering*, 1 (2): 34-39.
 25. Ruben, R., Hoebink, P., Ngutu, H. M., **Mutwiwa**, U. N., Njuguna, S., Elbers, W., Kempen, L., Rijsbergen, B., (2014). The Impact of Coffee Certification on Smallholder Farmers in Kenya. In The Impact of Coffee Certification on Smallholder Farmers in Kenya, Uganda and Ethiopia, Centre for International Development Issues Nijmegen (CIDIN), Radboud University Nijmegen, The Netherlands.

**BOOKS AND
BOOK
CHAPTERS**

26. Max, J. F. J., Schurr, U., Tantau, H. J., **Mutwiwa**, U. N., Hofmann, T., Ulbrich, A. (2013): Greenhouse Cover Technology. Horticultural Reviews
27. Kilonzo, F. N., **Mutwiwa**, U. N., Waweru, S. (2012). Evaluating the use of constructed wetlands in the treatment of tannery wastewater. *Kenya Science, Technology and Innovation Journal, Volume 3: 16-22.*
28. Mugo, J. K., **Mutwiwa**, U. N., Miriti, L., (2011). Mapping of Existing Gender-Disaggregated Data and Methodologies in Agriculture and Rural Development in Kenya. *JICA, Kenya Office and Agricultural Sector Coordination Unit, Kenya.*
29. Max, J. F. F., Horst, W. J., **Mutwiwa**, U. N., and H. J. Tantau. 2009. Effects of greenhouse cooling method on growth, fruit yield and quality of tomato (*Solanum lycopersicum* L.) in a tropical climate. *Scientia Horticulturae* 122, 179–186.
30. **Mutwiwa**, U. N., Tantau, H. J. 2009. Insect Screens for Integrated Plant Protection in Greenhouses. *Acta Horticulturae* 719.
31. **Mutwiwa**, U. N., Elsner, B., Tantau, H. J., Max, J. F. J. (2008). Cooling Naturally Ventilated Greenhouses in the Tropics by Near-Infra Red Reflection. *Acta Horticulturae* 801
32. **Mutwiwa**, U. N., Tantau, H. J. Elsner, B., Max, J. F. J. (2008). Effects of NIR-reflection Greenhouse Cooling on Blossom-end Rot and Fruit Cracking. *African Journal of Horticultural Science* 1: 33-43.
33. **Mutwiwa**, U. N., Tantau, H. J., Salokhe V. M. (2007). Greenhouses in the Humid Tropics: Problems and Solutions. *SOLARIS 2007. 1: 238-247.*
34. **Mutwiwa**, U. N., Tantau, H. J., Salokhe, V. M. (2006). Response of tomato plants to natural ventilation and evaporative cooling methods. *Acta Horticulturae* 719: 447-454.
35. **Mutwiwa**, U. N., Borgemeister, C., Elsner, B., Tantau, H. J. (2005a.) Effects of UV absorbing plastic films on greenhouse whitefly (Homoptera: Aleyrodidae). *Journal of Economic Entomology* 98 (4): 1221-1228.
36. **Mutwiwa**, U. N., Tantau, H. J. (2005b). Suitability of a UV lamp for trapping the greenhouse whitefly *Trialeurodes vaporariorum* Westwood (Hom: Aleyrodidae). *Agricultural Engineering International: the CIGR Ejournal Volume VII, Manuscript BC 05 004.*

BOOKS AND BOOK CHAPTERS

1. **Mutwiwa**, U. N. (2011). Cooling Greenhouses in the Tropics, Lampert Publishing, Germany. ISBN-10: 384659363X, ISBN-13: 978-3846593639.
2. **Mutwiwa**, U. N, Mwangi, E. K. (2011). Kenya: Country Status Report, Section 2; State-of-the-Art Report on 'Sustainable Rainwater

Harvesting and Ground Water Recharge in Developing Countries'; (Ed) Tanuja N. Ariyananda, A.R. Shivakumar and Vasant Takalkar; Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre); ISBN- 978-81-7035-770-4; 2011; pp 172-79.

3. Ngure, J., Githiru, M., **Mutwiwa**, U. N. (2011). Land-Use Conflicts in Kenya: Drivers and Potential Solutions, in Urbanisation, land use, land degradation and Environment. (Ed) Ozturk M.; Mermut A. R and A. Celik. Daya Publishing House, India. ISBN-10: 817035711X, ISBN-13: 978-8170357117; pp 114-127.

PROCEEDINGS PUBLISHED AT CONFERENCES /WORKSHOPS

Conference Publications

1. Mbothu, J., M., **Mutwiwa**, U. N.,
2. **Mutwiwa**, U. N., Ombati, K.O and G. M. Kituu (2018). JKUAT Scientific Conference 22nd -26th November 2018
3. Mukabane, B.G., Gathitu, B. B., **Mutwiwa**, U. N., Njogu, P., Ondimu, S. N., (2017). Microalgae Cultivation Systems for Biodiesel Production. *Institution of Engineers of Kenya Conference, held from 10th – 12th May 2017.*
4. Mukabane, B.G., Gathitu, B. B., **Mutwiwa**, U. N., Njogu, P., Ondimu, S. N., (2017). Microalgae Cultivation Systems for Biodiesel Production. *Proceedings of the Sustainable Research and Innovation Conference, JKUAT Main Campus, Kenya held from 3rd – 5th May 2017.*
5. Korir, M. K., **Mutwiwa**, U. N., Kituu, G. M., Sila, D. N. (2016). Effect of Evaporative Cooling and Near-Infrared Reflection Cooling on the Quality of Mangoes. *16th Workshop on Sustainable Horticultural Production in the Tropics, held from 28th November to 2nd December 2016 at Chuka University, Kenya.*
6. Kiburi, F. G., **Mutwiwa**, U. N., Naomi, C., Haron, Y. K. (2016). Evaluating the Performance of Dehumidified Solar Drier in Drying of Pumpkin slices (*Cucurbita pepo*). *The 11th JKUAT Scientific, Technological and Industrialization Conference 10th – 11th November, 2016.*
7. **Mutwiwa**, U. N., Korir, M. K., Kituu, G. M., Sila, D. N. (2016). Effect of Evaporative and Near-infrared Reflection Cooling on the Quality of Mangoes. *The 11th JKUAT Scientific, Technological and Industrialization Conference 10th – 11th November, 2016.*
8. Njuguna, S. N., **Mutwiwa**, U. N., Kanali, C. L., Kituu, G. M. (2016). A Model for Renewable Energy Based Agro-processing Technology Transfer. *Sustainable Research and Innovation, held from May 4th - 6th, 2016, at Kenya School of Monetary Studies, Nairobi, Kenya.*
9. Sang, J. K., Raude, J., M., **Mutwiwa**, U. N., Ochieng, F., (2016). Dual Echo Sounder Bathymetric Survey for Enhanced Management of

- Ruiru Reservoir Kenya. *African Water Association Congress May 2016*
10. Korir, M. K., **Mutwiwa**, U. N., Kituu, G. M., Sila, D. N. (2014). Assessment of postharvest challenges facing mangoes at Upper Athi River Basin, Kenya. *8th JKUAT Scientific and Technological Conference, November 2014.*
 11. Korir, M. K., **Mutwiwa**, U. N., Kituu, G. M., Sila, D. N. (2014). Development of a computer model simulation for predicting the performance of a near infrared reflecting charcoal cooler for on farm storage of mangoes. *Sustainable, Research and Innovation (SRI) Conference (pp.178-181), ISSN 2079-6226.*
 12. Muriuki C. W., **Mutwiwa**, U.N., Home P. G., (2014). Adsorption of Hexavalent Chromium from Aqueous Solution by Pumice: Equilibrium and Kinetic Study, *2014 Annual International Sustainable Research and Innovation (SRI) Conference at AICAD, Juja, Kenya.*
 13. **Mutwiwa**, U. N., Mwangi, H. M., Mbalo, D., (2013). Technical Challenges Hindering Accessibility of Clean Water Among the Residents of Mathare and Mukuru Informal Settlements in Nairobi, Kenya. *Proceedings of the 2013 Mechanical Engineering Annual Conference on Sustainable Research and Innovation, 23rd to 26th April, 2013.*
 14. Ngunzi, V. K., Mugucia, S. W., Kituu, G. M., **Mutwiwa**, U. N. (2013). Simulation Model for Predict Drying in the Automated Grain Dryer. *Proceedings of the 2013 JKUAT Scientific Technological and Industrialization Conference – pages 676-685*
 15. Ngugi, H. N., Home, P. G., and **Mutwiwa**, U. N. (2013). Impacts of WASH (Activities on the Environment in the Upper Mara Basin, presented at *8th JKUAT scientific, Technological and Industrialization conference, Juja Kenya.*
 16. Ngugi, H. N., Home, P. G., **Mutwiwa**, U. N. (2013): Evaluation of the Impacts of WASH (Water, Sanitation and Hygiene) Activities on the Environment in the Upper Mara using the WEAP model presented at the *1st Pan African Conference of science, computing and Technology (PACT 2013) Lusaka, Zambia (ASCU).*
 17. Omari, J., **Mutwiwa**, U. N., Mailutha, J. T. (2013). Environmental and Health Effects of E-Waste. *Proceedings of the 2013 Mechanical Engineering Annual Conference on Sustainable Research and Innovation, 23rd to 26th April, 2013.*
 18. Toili, M.E.M., Rimberia, F. K., Nyende, A. B., **Mutwiwa** U. N., Kaluli J. W., Sila D. (2012). Assessing morphological diversity of mango germplasm from the Upper Athi River (UAR) region of Eastern Kenya. *Proceedings of the 7th JKUAT scientific, technological and industrialization conference, Jomo Kenyatta University of Agriculture and Technology, Juja-Kenya, 15th-16th November, 2012.*

19. **Mutwiwa**, U. N., Tantau, H. J. and Max J.F. J. (2012). Evaluation of Gas Exchange System for Online Monitoring of Plant Response, *JKUAT Scientific Conference December, 2012*.
20. Onchoke, I., **Mutwiwa**, U. N and Murage, H. (2012). Gasifying Rice Husks as an Energy Resource. *3rd Kenya Rice Researchers Forum 28th June 2012, at KARI Headquarters, Nairobi, Kenya*.
21. **Mutwiwa**, U. N. (2011). Agricultural Engineering Training in Kenya, *3rd December 2011. Pwani University College*
22. **Mutwiwa**, U. N, Mwangi, E. K. (2009). Rainwater Harvesting and Ground Water Recharge in Kenya, *17-20 August, Pune, India*.
23. **Mutwiwa**, U. N., Tantau, H. J. (2008a). Insect Screens for Intergrated Plant Protection in Greenhouses. International Symposium on Strategies Towards Sustainability of Protected Cultivation in Mild winter Climate, *Antalya, Turkey, 6-11, April 2008*.
24. **Mutwiwa**, U. N., (2008b). Solar Drying of Agricultural Products using Greenhouses. *The German Alumni Food Network (GAFN) Workshop on "Drying Methods and Post-harvest Technologies" Chiangmai, Thailand, 25 February, 2008 to 5 March, 2008*.
25. **Mutwiwa**, U. N., Tantau, H. J., Salokhe, V. M., Schmidt, U. (2007a). Phytomonitoring Transpiration of Tomatoes Grown in Naturally Ventilated Greenhouses in the Humid Tropics. *5th International Symposium on Irrigation of Horticultural Crops, Mildura, Australia. 28 August – 2 September 2006*.
26. **Mutwiwa**, U. N., Tantau, H. J., Elsner, B., Max, J. F. J. (2007b). Cooling Naturally Ventilated Greenhouses in the Tropics by Near-Infra Red Reflection. *GREENSYS2007, Naples, Italy*.
27. **Mutwiwa**, U. N., Tantau, H. J., Max, J. F. J. (2007c). Effect of Greenhouse Cooling Method on the Growth and Yield of Tomato in the Tropics. *Proceedings of Deutscher Tropentag 2007, Witzenhausen, Germany*.
28. **Mutwiwa**, U. N. (2007d). The Effect of UV-Transmission on Insect Pests. *German Association of Plastics in Agriculture Spring Conference (GKL fruhjahrstagung) 2nd to 3rd May, 2007, Heidelberg, Germany*.
29. **Mutwiwa**, U. N., Tantau, H. J. (2005a): Greenhouse whitefly control using UV-absorbing plastics. *Landtechnik 4, S. 233*.

Selected Reports Authored Since Promotion to Senior Lecturer

1. Kanali, C. L., **Mutwiwa**, U. N., Kituu, G. N., Ronoh, E. K., Ndirangu, S. N., Mung'atu, J., Kamwere, M. M. (2017). Multi-Purpose Solar-Biomass Dryer in Kakamega County, and Evaporative Charcoal Cooler in Kirinyaga County. Commissioning and Training Report, submitted to New Castle University, UK.
2. **Mutwiwa**, U. N., Njuguna S. N., Ndirangu, G. M. (2016). Solidaridad's

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- Farmer Support Program on BCI Cotton- Kenya 2013 – 2015. End of Project Evaluation, submitted to Dioraphite Foundation /Solidaridad East and Central Africa Expertise Centre.
3. Kituu, G. M., Kanali, C. L., **Mutwiwa**, U. N. (2016). Technical Assessment of a Banana Drier. Submitted to Solidaridad East and Central Africa Expertise Centre.
4. **Mutwiwa**, U. N., Messo, J. R. (2016). Environmental Audit Study at Kronos LCS Centre at Ruiru Industrial Park, Kiambu County, Kenya. Submitted to the National Environment Management Authority.
5. Kanali, C. L., Kituu, G. M., **Mutwiwa**, U. N., Mung'atu, J. K., Njuguna, S. N. N., Kamwere, M. (2015). Farmer survey report on post-harvest food chain losses, wastage and current energy demand for high moisture content vegetables in Kenya. Submitted to New Castle University, RE4Food project in November 2015.
6. Kanali, C. L., **Mutwiwa**, U. N., Kituu, G. M., Mung'atu, J. K., Njuguna, S. N. N., Kamwere, M. (2015). Market survey report on post-harvest food chain losses, and current energy demand for high moisture content vegetables in Kenya. Submitted to New Castle University, RE4Food project in July 2015.
7. Kanali, C. L., Shitanda, D., Mailutha, J. T., Kituu, G. M., **Mutwiwa**, U. N., Mung'atu, J. K., Njuguna, S. N., Kamwere, M., (2014). Baseline survey on post-harvest food chain losses, wastage and current energy demand for high moisture content vegetables in Kenya. Submitted to New Castle University, RE4Food project in October 2014.
8. Kanali, C. L., Shitanda, D., Mailutha, J. T., Kituu, G. M., **Mutwiwa**, U. N., Mung'atu, J. K., Njuguna, S. N., Kamwere, M., and Practical Action Kenya. (2014). RE4Food stakeholders' workshop report. Submitted to New Castle University, RE4Food project in 2014.
9. **Mutwiwa**, U. N., Messo, J. R. (2014). Environmental Audit for Mwangaza (Kamuta) Farm, Naivasha. Submitted to the National Environment Management Authority.
10. **Mutwiwa**, U. N. (2014). Background report on the sustainable Diets4All in Kenya program. Submitted to the Human Institute for Co-operation with Developing Countries (HIVOS), The Netherlands.
11. **Mutwiwa**, U. N., Ndirangu, S. N., Ngutu, H. M. (2013). The Potato Value Chain in Selected Counties in Kenya. Submitted to SNV/HIVOS/SEACEC.
12. **Mutwiwa**, U. N., Njuguna, S. N., Ngutu, H. M. (2013). The Impact of Certification on Selected Smallholder Coffee Farmers in Kiambu and Nyeri Counties in Kenya. Submitted to the Centre for International Development Issues Nijmegen, The Netherlands.
13. Messo, J. R., **Mutwiwa**, U. N. (2013). Environmental Impact Assessment Study for the Proposed Construction of Kronos LCS

Centre at Ruiru Industrial Park, Kiambu County, Kenya. Submitted to the National Environment Management Authority.

SELECTED COMMUNITY SERVICE / CONSULTANCIES

Associate
Consultant

Name of project: Switch Africa Green
Year: September 2019 to date
Location: Nairobi
Client: Etimos Foundation and Jomo Kenyatta University of Agriculture and Technology

Lead Trainer

Main Project features: Disseminating sustainable consumption and production practices in the Kenyan Coffee Value chain

Name of project: ISO 14001: 2015 Environmental Management Systems

Year: December 2019

Location: Nairobi

Client: Environment Institute of Kenya

Main Project features: Sensitisation of Lead and Associate EIA/EA experts and stakeholders from Nakuru and the great rift Counties

Lead Trainer

Name of project: ISO 14001: 2015 Environmental Management Systems

Year: December 2019

Location: Nairobi

Client: Environment Institute of Kenya

Main Project features: Sensitisation of Lead and Associate EIA/EA experts and stakeholders from Eastern and North Eastern Counties

Lead Consultant

Name of project: Estimating Greenhouse Gases from Selected Small and Medium Coffee Estates in Kenya Using Cool Farm Tool Calculator.

Year: September 2019

Location: Nairobi

Client: Solidaridad East Africa Expertise Centre

Main Project features: Identification of GHG hotspots and assess mitigation options from small and medium scale coffee farms in Machakos, Kirinyaga and Nyeri Counties, Kenya

Associate
Consultant

Name of Project: Agricultural and Market Linkages (AMAL) Project;

Year: August 2019

Client: Welthungerhilfe

Main Project features: Baseline Survey for-Agricultural and Market Linkages

Associate
Consultant

Name of project: Understanding the Situation of Small and Medium coffee Estate Groups in Kenya in relation to access to better services and markets.

Year: Feb 2019

Location: Nairobi

Client: Utz Rainforest Alliance

Main Project features: Baseline information on situation and challenges of small and medium estates and associations in Kenya.

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| Lead Trainer | <p>Name of project: EIA/EA Refresher Course</p> <p>Year: November 2018</p> <p>Location: Nairobi</p> <p>Client: Environment Institute of Kenya</p> <p>Main Project features: Refresher training for Lead and Associate EIA/EA experts and stakeholders from Nairobi Counties</p> |
| Associate Consultant | <p>Name of project: Baseline Survey for Sustainable Diets for ALL</p> <p>Year: April 2018</p> <p>Location: Nairobi</p> <p>Client: HIVOS, The Netherlands</p> <p>Main Project features: Baseline survey for the Sustainable Diets for All in 8 counties in Kenya</p> |
| Associate Consultant | <p>Name of Project: Scoping study on sustainable diets for all in 7 counties in Kenya</p> <p>Year: January 2018</p> <p>Client: Human Institute For Cooperation with Developing Countries, East Africa (HIVOS)</p> <p>Main Project Features: To obtain preliminary information on the status of sustainable diets at the national and 7 selected counties namely Nairobi, Kiambu, Embu, Kirinyaga, Meru, Nakuru and Vihiga</p> |
| Lead Researcher | <p>Name of project: Renewable Energy for Food Security</p> <p>Year: April 2017</p> <p>Location: Nairobi</p> <p>Client: DFID, United Kingdom</p> <p>Main Project features: Design and development of renewable energy technologies for adoption by smallholder vegetable farmers</p> |
| Associate Consultant | <p>Name of project: Solidaridad's Farmer Support Program on BCI Cotton-Kenya 2013 – 2015</p> <p>Year: April 2016</p> <p>Location: Nairobi</p> <p>Client: Dioraphite Foundation /Solidaridad</p> <p>Main Project features: End Of Project Evaluation</p> |
| Associate Consultant | <p>Name of project: Technical Evaluation of a Banana Drier</p> <p>Year: 2016</p> <p>Location: Nairobi</p> <p>Client: Solidaridad</p> <p>Main Project features: Verification of the key features of a newly developed banana drier</p> |
| Lead Expert EIA | <p>Name project: Environmental Audit Study at Buehler Training School at Ruiru Industrial Park, Kiambu County, Kenya</p> <p>Year: 2016</p> <p>Location: Ruiru Industrial Park, Kiambu County, Kenya</p> <p>Client: Buehler, Kenya.</p> <p>Main project features: To evaluate the environmental performance of their activities.</p> |

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| Lead Consultant | <p>Name of project: Assessment of the Status of four small tea processing Companies in Meru, Limuru, Kiambu and Mombasa for HACCP Certification</p> <p>Year: December 2014</p> <p>Location: Nairobi</p> <p>Client: Meru Herbs Limited/Solidaridad</p> <p>Main Project features: Gap Establishment</p> |
| Lead Consultant | <p>Name of project: Background report on the sustainable Diets4All in Kenya program</p> <p>Year: November 2014</p> <p>Location: Nairobi</p> <p>Client: Human Institute for Co-operation with Developing Countries (HIVOS), The Netherlands</p> <p>Main Project features: Description of the Kenyan food system, the state of food security and malnutrition</p> |
| Lead Consultant | <p>Name of project: Training Needs Assessment in six coffee farmers cooperative societies</p> <p>Year: June 2014</p> <p>Location: Kiambu, Machakos, Muranga, Kirinyaga, Embu and Nyeri Counties</p> <p>Client: Noble Consultants Limited</p> <p>Main Project features: To identify any gaps (shortcomings) to be addressed during the training with a view to enhancing the management and organizational capacity of Kiambaa, Kakuyuni, Kangunu, Mwirua, Muramuki and Tekangu Farmers' Cooperative Societies.</p> |
| Associate Consultant | <p>Name project: Development of a Business Plan for Mwangaza (Kamuta) Farm, Naivasha</p> <p>Year: 2014</p> <p>Location: Naivasha, Nakuru County, Kenya</p> <p>Client: African Farms and Markets.</p> <p>Main project features: To undertake feasibility study for horticultural production, undertake environmental audit, design an irrigation system as well as a workable business plan for the farm.</p> |
| Lead Expert EIA/EA | <p>Name project: Establishment of a Dairy Milk Cooling Plant at New Gatukuyu Farmers Cooperative Society, Kiambu County</p> <p>Year: 2014</p> <p>Location: Gatukuyu, Kiambu County, Kenya</p> <p>Client: New Gatukuyu FCS.</p> <p>Main project features: To undertake environmental impact assessment for the proposed dairy cooler</p> |
| Lead Consultant | <p>Name project: The Potato Value Chain in Selected Counties in Kenya</p> <p>Year: 2013</p> <p>Location: Narok, Bomet, Nyandarua and Meru Counties, Kenya</p> <p>Client: SNV/HIVOS/Solidaridad.</p> <p>Main project features: To expand and deepen the supply of high quality potatoes by integrating and linking smallholder farmers to existing large scale buyers, hotel chains, market intermediaries and aggregators of the small fast foods outlets.</p> |

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| Lead Consultant | <p>Name project: The Impact of Certification on Selected Smallholder Coffee Farmers in Kiambu and Nyeri Counties in Kenya</p> <p>Year: 2013</p> <p>Location: Kiambu and Nyeri Counties, Kenya</p> <p>Client: Centre for International Development Issues Nijmegen, The Netherlands.</p> <p>Main project features: To establish the social and economic impact of coffee farming in two counties in Kenya, namely, Kiambu and Nyeri Counties. The study sought to assess the impact of certification towards improving coffee production and quality in Kenya</p> |
| Lead Consultant | <p>Name project: Reference Baseline on Introducing Avocados to Smallholder Farmers in Narok and Bomet Districts in Kenya</p> <p>Year: 2012</p> <p>Location: Narok and Bomet Districts, Kenya</p> <p>Client: SNV/HIVOS/Solidaridad</p> <p>Main project features: To introduce avocado in Narok and Bomet where smallholder farmers will be integrated and linked to an existing large scale farmer and exporter in order to access lucrative market in the EU</p> |
| Lead Consultant | <p>Name project: Baseline survey for the coffee production and other Economic Activities in Mwirua FCS of Kirinyaga District</p> <p>Year: 2012</p> <p>Location: Kirinyaga County, Kenya</p> <p>Client: Coffee Management Services Ltd</p> <p>Main project features: To establish the social and economic impact of Coffee farming in the region compared to other various economic activities in the region and to assess the social and economic impact that can be attributed to the Mwirua FCS Small Holder Quality Improvement Project</p> |
| Lead Consultant | <p>Name project: Establishing Farmer Business Groups for Horticulture (fresh beans, snow peas etc) and Other Food Crops</p> <p>Year: January 2012</p> <p>Location: Kenya</p> <p>Client: HIVOS/Solidaridad/SNV</p> <p>Main project features: To improve the incomes of the smallholder producers and their food security situation, as well as contributing to improved sustainability and efficiency of the horticultural sector in Kenya</p> |
| Theme Leader | <p>Name project: Water and Sanitation for the Urban Poor, Kenya</p> <p>Year: December 2011</p> <p>Location: Kenya</p> <p>Client: Germany International Cooperation/Germany Academic Exchange Services</p> <p>Main project features: Technical solutions to water and sanitation among the dwellers of Mukuru kwa Njenga and Mathare Informal Settlements in Nairobi</p> |

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| Lead Consultant | <p>Name project: Environmental Audit for Kabuboni Farmers Cooperative Society Limited, Kenya</p> <p>Year: November 2011</p> <p>Location: Kenya</p> <p>Client: Sustainable Management Services Limited</p> <p>Main project features: Environmental Audit of one to enable certification against Utz Certified standard for coffee producers</p> |
| Lead Consultant | <p>Name project: Climate Change in Coffee</p> <p>Year: 2011</p> <p>Location: Kenya</p> <p>Client: Sustainable Management Services Limited</p> <p>Main project features: Testing the usability of the Cool Farm Tool (CFT) to measure the carbon footprint of smallholder coffee cooperatives in Kenya</p> |
| Lead Consultant | <p>Name project: Environmental Audit for Mwirua Farmers Cooperative Society Limited, Kenya</p> <p>Year: January 2011</p> <p>Location: Kenya</p> <p>Client: Coffee Management Services Limited</p> <p>Main project features: Preparation for Utz and Fairtrade Certification</p> |
| Associate Consultant | <p>Name project: Mapping of Existing Gender-Disaggregated Data and Methodologies in Agriculture and Rural Development in Kenya</p> <p>Year: 2010</p> <p>Location: Kenya</p> <p>Client: Japan International Cooperation Agency (JICA)</p> <p>Main project features: Mapping of Existing Gender-Disaggregated Data and Methodologies in Agriculture and Rural Development in Kenya</p> |
| Lead Consultant | <p>Name project: Community and Gender Value Chain Analysis for Baragwi Farmers Cooperative Society Limited, Kenya</p> <p>Year: 2010</p> <p>Location: Kenya</p> <p>Client: Sustainable Management Services Limited</p> <p>Main project features: Baseline survey for horticultural value Chains</p> |
| Lead Consultant | <p>Name project: Certification for Baragwi Farmers Cooperative Society Limited</p> <p>Year: 2010</p> <p>Location: Kenya</p> <p>Client: Sustainable Management Systems Limited</p> <p>Main project features: Preparation for Utz and Fairtrade Certification</p> |
| Lead Consultant | <p>Name project: Strengthening the Productivity and Competitive Position of Organized Smallholder Coffee Farmers in Kenya</p> <p>Year: 2009</p> <p>Location: Kenya</p> <p>Client: Tropical Farm Management</p> <p>Main project features: Preparation and implementation of Quality Management Systems for Kawethei and Kingoti Farmers Cooperative Society in Kangundo District</p> |

Lead Consultant

Name project: Strengthening the Productivity and Competitive Position of Organized Smallholder Coffee Farmers in Kenya

Year: 2009

Location: Kenya

Client: Tropical Farm Management

Main project features: Preparation and implementation of Quality Management Systems for Gatunyu-Kigio and Kangoriaki Coffee Farmers Cooperatives Ltd Thika District

REFERENCES

1. Prof. Eng. Benard W. Ikua, PhD., PEng.,
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Tel: +254 723667602; Email: j.m.gathenya@jkuat.ac.ke