

**PROFESSOR DANIEL  
MUGENDI NJIRU, Ph.D., EBS**

**CURRICULUM VITAE**



# CURRICULUM VITAE



## 1.0. GENERAL INFORMATION

**NAME:** Daniel Mugendi Njiru  
**DATE OF BIRTH:** 1961  
**MARITAL STATUS:** Married  
**CITIZENSHIP:** Kenyan  
**ADDRESS:** P.O. Box 65022-00618, Ruaraka, Nairobi;  
**Email:** [vc@embuni.ac.ke](mailto:vc@embuni.ac.ke)

## 2.0. EDUCATION:

### 2.1 Academic Background

- 1969-1975:** Kirege Primary School, Meru South, Kenya Certificate: Certificate of Primary Education (C.P.E).
- 1976-1979:** Ikuu Secondary School, Meru South, Kenya Certificate: East African Certificate of Education (E.A.C.E).
- 1980-1981:** Nkubu High School, Meru Central, Kenya Certificate: Kenya Advanced Certificate of Education (K.A.C.E).
- 1983-1984:** University of Nairobi, Nairobi, Kenya; transferred to Moi University after first academic year.
- 1984-1986:** Moi University, Eldoret, Kenya; completed: Bachelor of Science (BSc) Forestry (2<sup>nd</sup> Class Honours, Upper Division).
- 1988-1990:** University of Nairobi, Master of Science in Crop Science Research work - investigated the influence of hedgerow intercropping (alley cropping) on maize yields in the semiarid Machakos
- 1993-1997:** University of Florida, Gainesville, FL, USA; PhD in Agroforestry. Dissertation research work evaluated the influence of soil-incorporated leaf biomass of agroforestry trees on soil fertility and maize yield.
- 1998-1999:** African Career Award (Rockefeller Foundation) Post-Doctoral Fellowship to conduct research in soil nitrogen movement (leaching) in the central highlands of Kenya.

### 2.2. Professional and Management Trainings

- June 1991:** 2-week training course on problem identification statistical analysis and experimental designs at the JICA/KEFRI Regional Training Centre, Kitui, Kenya, sponsored by KEFRI and Finnish Government.
- Oct. 1991:** 3-week multi-donor training course on Agroforestry Research for Development at ICRAF Headquarters, Nairobi, Kenya, sponsored by SIDA.
- June 1994:** 3-week Rockefeller sponsored Summer Institute at the University of

Wisconsin-Madison, USA.

- June 1998:** 3-week UK Workshop on Agroforestry Modeling funded by DFID.
- Oct-Nov 2003:** 1-month training program on “African Regional Agriculture and Trade Initiative” held in Australia sponsored by Australian Government.
- Feb 2006:** Proposal Writing Workshop sponsored by ASARECA, Hilton Hotel, Nairobi, Kenya
- May 2006:** UNEP Education for Sustainable Development (ESD) Innovations course for Universities in Africa MESA Programme at Kenya School of Monetary Studies, Kenya
- June 2006:** Short Management Course on “Finance for Non Finance Managers” held at Strathmore University, Kenya.
- Feb. 2007:** 1 day “Corporate Governance Induction Course” at Lake Naivasha Country Club by the Centre for Corporate Governance.
- July 2007:** 1-day seminar titled “East Africa’s Premier Leadership Event; Re-imagine Leadership, Re-imagine Excellence” by Tom Peters, Safari park Hotel, Nairobi, Kenya.
- July 2007:** 3 days Training on “Board Governance” Retreat at BTL Ruiru Training Center.
- Nov. 2008:** 2 days Global Leadership Summit 2008 at Nairobi Baptist Church – “Lead Where You Are”, Nairobi, Kenya.
- Mar. 2010:** 1 week “Managing for Results” Seminar at Lake Elementita Country Lodge organized by Kenya School of Professional Studies (Inoorero University).
- Aug. 2010:** 1-day Corporate Governance Training Course for Kenyatta University Council at North Coast Beach Hotel, Mombasa by Centre for Corporate Governance.
- Nov. 2010:** 2 days Training Seminar on the Role and Functions of Audit Committees of State Corporations at the Great Rift Valley Lodge by KCA University.
- Nov 2010:** 2-day Strategic Leadership & Change Management Workshop for Directors of State Corporations at KIA convened by the State Corporation Advisory Committee
- Jan. 2011:** 2 weeks International Training Seminar on Management of Higher Education Institutions at Galilee International Management Institute, Nazareth, Israel.
- July 2013:** 2-day training on Financial Management, organized by Dolphins Training and Consultants Limited
- Aug. 2015** 1-day – Engagement Workshop at the Kenya Bankers Sacco Centre, Community, Nairobi convened by the Cabinet Sectary, Ministry of Education Science and Technology
- Sep. 2015** 5-day - Corporate Governance Training Course at Sarova Whitesands Hotel, Mombasa, Kenya by Centre for Corporate Governance.
- Apr. 2016** 1-day Internal Quality Assurance workshop at NURU PALACE, Nakuru Town organized by Commission for University Education.
- Jun. 2016** 1-day sensitization on “Job Evaluation for the Public Universities, Tertiary Education and Research Institutions” by Kenya School of Monetary Studies, Nairobi.

<b>Jan. 2017</b>	2-days “Training of Negotiators Workshop” at the University of Nairobi, organized by the Inter Public Universities Councils Consultative Forum Human Resource Committee.
<b>Apr. 2017</b>	2-days “Induction Training for Newly Appointed Public University Council Members” at Simba Lodge, Naivasha.
<b>Nov. 2018</b>	3-days “Training and Mentorship Programme for Leaders of African Universities” by the Centre for Innovative Leadership and Governance (CLIG), Kenya in collaboration with The Institute for International Business (IIB), University of Iowa, USA, from 5 <sup>th</sup> to 7 <sup>th</sup> November, 2018.
<b>Dec. 2018</b>	2-days “Head of Institutions (HOI)” Forum at the Serena Beach Hotel, Mombasa 6 <sup>th</sup> to 7 <sup>th</sup> December, 2018.
<b>Jan-Feb. 2019</b>	6-weeks “Strategic Leadership Development Program (SLDP)” at the Kenya School of Government, Lower Kabete Campus from January 14, 2019 to February 22, 2019.
<b>Mar. 2019</b>	4-days “Governance and Strategic Planning” training at Mombasa from 13 <sup>th</sup> to 16 <sup>th</sup> March, 2019.
<b>April. 2019</b>	3-days “Training and Mentorship Programme for Leaders of African Universities” by the Centre for Innovative Leadership and Governance (CLIG), Kenya in collaboration with The Institute for International Business (IIB), University of Iowa, USA, from 15 <sup>th</sup> to 19 <sup>th</sup> April, 2019.
<b>Apr. 2019</b>	4-days “Leadership Training Workshop” at Lake Naivasha Simba Lodge from 24 <sup>th</sup> to 27 <sup>th</sup> April, 2019.
<b>Nov. 2019</b>	2-days “Kenya Universities Professional Counsellors” Workshop at the University of Embu from 6 <sup>th</sup> to 7 <sup>th</sup> November, 2019.
<b>Dec. 2019</b>	2-days “Head of Institutions (HOI)” Forum at the Sarova Whitesands Beach Resort & Spa, Mombasa, 10 <sup>th</sup> to 11 <sup>th</sup> December, 2019.
<b>July. 2023</b>	4 – days “Council Capacity Building Training” at Lake Naivasha Resort from 17 <sup>th</sup> to 20 <sup>th</sup> July, 2023
<b>Mar. 2024</b>	1- day “Implementation of CBE in Universities” in an engagement forum with the Vice-Chancellors and Principals of Constituent Colleges on Friday, 8 <sup>th</sup> March, 2024 in Naivasha.
<b>June 2024</b>	1 – week Public Sector End of year closing procedures Training at Kenya School of Government, Nairobi campus from 3 <sup>rd</sup> to 7 <sup>th</sup> June, 2024.
<b>June 2024</b>	2 – days “Entrepreneurial Leaders Training Program (ELTP) Vice-Chancellor Edition from 18 <sup>th</sup> to 19 <sup>th</sup> June, 2024 in Diani.
<b>Oct. 2024</b>	3- days Entrepreneurial Leaders Training Program (ELTP) Bootcamp from 14 <sup>th</sup> to 16 <sup>th</sup> October, 2024 in India.
<b>Nov. 2024</b>	1-day “Final Session of the Entrepreneurs Training Program (ELTP) Vice-Chancellor Edition at the Edge Convention Center, Nairobi.

### **3.0 EMPLOYMENT HISTORY**

#### **3.1 Employment Status**

<b>1982-1983:</b>	Science Teacher, Flamingo Secondary School, Nakuru
<b>1986-1990:</b>	Assistant Research Officer, Kenya Forestry Research Institute
<b>1990-1994:</b>	Research Officer II, Kenya Forestry Research Institute
<b>1994-1998:</b>	Research Officer I, Kenya Forestry Research Institute
<b>1998-1999:</b>	Senior Research Officer, Kenya Forestry Research Institute
<b>1999-2005:</b>	Senior Lecturer, Kenyatta University
<b>2005-2011:</b>	Associate Professor, Kenyatta University
<b>2006-2011:</b>	Deputy Vice-Chancellor (Finance, Planning and Development), Kenyatta University
<b>2009- Date:</b>	Environmental Impact Assessment/Audit Lead Expert
<b>2012-2016:</b>	Principal, Embu University College
<b>2014 –2016:</b>	Full Professor – Embu University College
<b>2016 –Date:</b>	Full Professor – University of Embu
<b>2016 – 2017:</b>	Acting Vice-Chancellor – University of Embu
<b>2018 – Date:</b>	Vice-Chancellor – University of Embu

#### **3.2 Work Experience**

##### **(I) Research Officer (Kenya Forestry Research Institute)**

Duties included:

- Initiation and conduction of agroforestry research with particular emphasis in on-station and on-farm research in the areas of alley farming, soil conservation and fertility, fodder banks, rehabilitation of denuded grazing lands and development of fruit trees
- Testing and demonstration of viable agroforestry technologies on farmers' fields with individual farmers, farmer groups and schools in collaboration with extension agents and non-governmental organizations
- Coordinating the work of various collaborators and providing support in soil and water related research to other projects such as Agroforestry Network for Africa (AFRENA-Maseno), African Highland Initiative (AHI), Arid and Semi-Arid Project for Kenya (ARIDSAK), Desert Margin Project (DMP), etc.
- Being the main scientist responsible for the collaboration between KEFRI and the National Agroforestry Research Project (NAFRP-Embu) and the Ministry of Agriculture and the Forestry Research Department Extension Services
- Carrying out monitoring and evaluation of the different projects and providing timely research reports, research notes and technical reports

**(II) Senior Lecturer/Associate Professor (Kenyatta University)**

Duties included:

- Taught many courses including Agroforestry, Ecology of agronomic crops, Soil Fertility & Productivity, Seminars and Computer applications
- Supervised many Masters and PhD students

**(III) Chairman of Department (Environmental Foundations)**

Duties included:

- Chairing of departmental board meetings
- Ensuring quality teaching
- Chief Departmental Examinations Officer
- Evaluation of Academic Staff in the Department
- Day-to-day running of the Department

**(IV) Dean of the School (School of Environmental Studies & Human Sciences)**

Duties included:

- Chairing the School Board meetings.
- Chairing post graduate theses defense
- Chief School Examinations Officer
- Administrative Head of the School

**(V) Deputy Vice Chancellor (Finance, Planning & Development)**

Duties included:

- Head of Finance and oversees preparation of budget, approval, allocation of funds, and control of expenditure
- Ensuring financial policies are followed and budgets strictly adhered to
- Implementing Council's decisions on physical development and also ensures the repair and maintenance of the University infrastructure
- Secretary to Full Council and also to the Tender, Finance and General Purposes committees of the Council
- Coordination of the procurement of University supplies through the Purchasing Office and ensuring procurement procedures are followed
- In-charge of the student accommodation services and oversees the running of the University restaurants and catering services

**(VI) Principal, Embu University College**

Duties include:

- Administrative and Academic Head/CEO of the University College
- Teaching and supervising postgraduate students
- Oversee the formulation and implementation of University policies

**(VII) Acting Vice-Chancellor University of Embu**

- Administrative and Academic Head/CEO of the University of Embu
- Teaching and supervising postgraduate students
- Oversee the formulation and implementation of University policies

### **(VIII) Vice-Chancellor, University of Embu**

- Administrative and Academic Head/CEO of the University of Embu
- Teaching and supervising postgraduate students
- Oversee the formulation and implementation of University policies

### **3.3 University Administrative Positions and Responsibilities**

<b>1999-2002:</b>	Chairman, Postgraduate Research Coordinator, Department of Environmental Foundations - KU
<b>1999-2002:</b>	Examination Coordinator, Faculty of Environmental Studies -KU
<b>2002- 2003:</b>	Chairman, Board of Postgraduate Studies, School of Pure and Applied Sciences
<b>2002-2003:</b>	Examination Coordinator, School of Pure and Applied Sciences - KU
<b>2003 -2004:</b>	Chairman, Department of Environmental Foundations
<b>2004-2006:</b>	Alternate Chair, Vice-Chancellor's Committee organizing the Regional Conference on the Role of African Universities in the Attainment of Millennium Development Goals
<b>2004-2006:</b>	Dean, School of Environmental Studies and Human Sciences - KU
<b>2006:</b>	Chair, Vice-Chancellor's Committee to develop the 5-year Medium Term Plans and Budget Frameworks for Kenyatta University
<b>2006-2010:</b>	Chair, Kenyatta University Catering and Accommodation Services Board
<b>2006-2011:</b>	Chair, Vice-Chancellor's Committee on the implementation of University Projects – KU
<b>2006-2011:</b>	Deputy Vice-Chancellor (Finance, Planning and Development) and Secretary to Council.
<b>2012 – 2016</b>	Principal, Embu University College.
<b>2016 – 2017</b>	Acting Vice-Chancellor, University of Embu
<b>2018 to date</b>	Vice-Chancellor, University of Embu
<b>2023 to date</b>	Chairman, Vice-Chancellors' Committee for all Public Universities and Constituent Colleges

### **Committees Chaired**

- 1. Chairman** – EUC Academic Board
- 2. Chairman** – EUC University College Academic Board of Examiners
- 3. Chairman** – University College Management Board
- 4. Chairman** – University College Integrity Assurance Committee
- 5. Member** – Various University College Council Committees as per EUC Statutes
- 6. Chairman** – University Management Board
- 7. Chairman** – University of Embu Senate

- 8. Chairman** – University Council Committee on Appointments and Promotions for staff in grade 1 up to Senior Lecturer
- 9. Secretary** – University of Embu Council.
- 10. Member** – Various University Council committees

### 3.4. Leadership Abilities

Held various leadership positions (e.g. class & dormitory head and chairman of different student organizations) throughout entire school and working life. The most notable include:

- 1984-1986:** Vice President (Vice Chairman) and the Director of Finance in the Moi University Student Government Organization
- 1984-1986:** Chairman of the Moi University Christian Union
- 1993-1997:** Served in various official capacities (from committee member to Vice-President and President) in the University of Florida (UF) Forestry Student Organization
- 1994-1997:** Responsible for organizing the Agroforestry Interest Group at UF
- 1996-1997:** Attended and participated in the bi-weekly Faculty meetings at the School of Forest Resources & Conservation
- 1996-1997:** Served in various committees including Chairing the Publicity and Outreach Committee for the African Student Association of UF
- Dec. 1999:** Appointed by the Board of the Faculty of Agriculture, Landscape Planning & Horticulture of the Swedish University of agricultural Sciences (SLU) to act as a Faculty Opponent at Eva Ohlsson's
- 2000:** Regional Secretary General of the Soil Science Society of East Africa
- 2001-2002:** Secretary to the Kenya Chapter of Soil Science Society of East Africa
- 2001-2003:** Member, Board of Governors (BOG), Kirege Secondary School
- May, 2001:** Appointed by the Board of the Faculty of Agriculture, Landscape Planning & Horticulture of the Swedish University of agricultural Sciences (SLU) to act as a Victor Aguilar's public defense of their theses for Doctor's degrees
- 2002-2003:** Regional Chairman of the Soil Science Society of East Africa
- 2002-2009:** Appointed to Editorial Board of Agricultural Systems Journal
- 2002-Date:** Chairman, African Network (AfNet) of Tropical Soil Biology and Fertility Institute of CIAT (TSBF-CIAT)
- 2003-2008:** Chairman (Kenya Chapter) of the Soil Science Society of East Africa
- 2004-Date:** Worked/working with over 50 farmer groups in central Kenya to promote Well-being of the farmers in these groups
- 2004 - 2022:** Chairman, Board of Governors (BOG), Kirege Secondary School
- 2005-2011:** Appointed by the Minister for Environment and Natural Resources to be a Member of National Environment Council (NEC)



- 2008-2013:** Member, Board of Governors (BOG), Ikuu Boys High School
- 2008-Date:** Nominated member of Tree Biotechnology Program (TBP) Board of Trustees
- 2009-2012:** Appointed by the Minister for Forestry and Wildlife to be a Board Member of Kenya Forestry Research Institute (KEFRI)
- 2012-2015:** Appointed by the Minister for Environment and Natural Resources to be Chairman, Kenya Forestry Research Institute (KEFRI) Board
- 2015-Present:** Board of Trustees, Cytonn Investments Company
- 2020-Present:** Appointed to Serve in FOCUS KENYA Advisory Committee.
- 2023-Present:** Appointed Member of the Regional Research and Development Working Group of the East African Science and Technology Commission.
- 2023-Present:** Chair, Vice Chancellor's Committee of Public Universities in Kenya
- 2023-Present:** Member, Board of Kenya Universities and Colleges Central Placement Service (KUCCPS)
- 2023-Present:** Member of the Higher Education Loans Board (HELB)
- 2023-Present:** Appointed as a Member in a Selection Panel for appointment of a Chairperson, National Commission for Science and Technology Board of Directors
- 2024 – Present:** Appointed as a Member in the Planning Committee of the National Committee on the Review of the New University Education Funding Model.
- 2024 – Present:** Appointed as a Member of the selection panel for the recruitment of the members of the National Commission for Science, Technology and Innovation (NACOSTI)
- 2025 – Present:** Normianted as the Chairperson of the Outreach and Partnerships Committee in the EASTCO Governing Board
- 2025 – Present:** Appointed as a member of the selection panel for the recruitment of the Board of the National Commission for Science, Technology and Innovation (NACOSTI)
- 2025 – Present:** Norminated as a member in the Intergovernmental Technical Panel on Soils (ITPS)

## **4.0 POSTGRADUATE SUPERVISION**

### **4.1. Masters Theses Supervised**

1. Michael K. Kanyi - Residual Nitrogen in Humic Nitisol where *Calliandra calothyrsus* and *Leucaena leucocephala* biomass has been incorporated. (Masters; 1998-2000). Department of Env. Science, Faculty of Env. Studies, Kenyatta University
2. Margaret Nyakinyua Mwangi - Population Trends of Soil Invertebrate Macrofauna and their Role in Litter Decomposition within a Hedgerow Intercropping in Embu, Kenya. (Masters; 1999-2001). Dept. of Env. Foundation, Faculty of Env. Studies, Kenyatta University
3. Job Kihara – The effect of tree nursery growth media and farmer management on seedling quality (Masters; 1999-2001). Department of Environmental Foundation, School of Pure and Applied Sciences, Kenyatta University
4. Joseph Kimetu –Nitrogen fertilizer equivalency based on organic input quality (Masters; 1999-2001). Dept. of Env. Foundation, Sch. of Pure & Applied Sciences, Kenyatta University
5. Monicah W Mucheru -Soil fertility improvement technologies for increased food production in

- Meru South District, Kenya (Masters; 2000-2002). Department of Env. Foundation, School of Pure and Applied Sciences, Kenyatta University
6. Leen Symons – Quality, quantity and stability of organic matter along a climate and soil gradient in central Kenya (2003-2004). Dept Landbeheer, Katholieke Univ, Leuven, Belgium
  7. Boaz S. Waswa – Soil organic matter status under different agroforestry management practices in three selected sites in Kenya (Masters; 2000- 2004). Dept. of Env. Foundation, School of Pure and Applied Sciences, Kenyatta University
  8. Kangai Ruth Adiel - Adoption Potential of Soil Fertility Improvement Strategies in Chuka, Eastern Kenya. (Masters; 2001- 2004). Department of Environmental Foundation, School of Pure and Applied Sciences, Kenyatta University
  9. James Kinyua Mutegi - Use of *Calliandra calothyrsus* and *Leucaena tricantra* tree species for Improved Soil Nutrient Management in Chuka Division, Central Highlands of Kenya. (Masters; 2001-2004). Department of Env. Foundation, Sch. of Pure & Applied Sciences, KU.
  10. Mercy Wanja Karunditu – Effect of soil organic matter status on inorganic nitrogen fertilizer use efficiency in Embu, Kabete and Maseno, Kenya. (Masters; 2001-2005). Department of Environmental Foundation, School of Pure and Applied Sciences, Kenyatta University
  11. Franklin Somoni Mairura – Role of indigenous knowledge and local indicators in the management of soil quality among smallholder farmers in Chuka and Gachoka Divisions, Kenya. (Masters; 2001-2005). Department of Environmental Foundation, School of Pure and Applied Sciences, Kenyatta University
  12. Kiura Jonathan Muriuki – Informal agroforestry tree seed quality and supply systems: A case of peri-urban Nairobi, Meru and Western Kenya. (Masters; 2001-2005). Department of Environmental Foundation, School of Pure and Applied Sciences, Kenyatta University
  13. Baaru Mary Wamuyu – Effect of organic materials of different quality and inorganic fertilizer on soil microbial biomass at Kabete, Kenya. (Masters; 2002-2006). Department of Environmental Foundation, School of Pure and Applied Sciences, Kenyatta University
  14. Salome Wamuyu Muriuki - Assessment of long-term impacts of organic & inorganic fertilizers on soil extractable phosphorus and carbon in Machanga, Mbeere District, Kenya, (Masters; 2003-2006). Department of Environmental sciences, School of Environmental Studies and Human Sciences, Kenyatta University
  15. Naomi Njeri Kamau – The effect of dual inoculation with mycorrhiza and rhizobium on growth performance of soyabeans in acidic soils in Gatanga, Kenya (Masters ; 2003-2009). Department of Env. sciences, School of Environmental Studies, Kenyatta University.
  16. Alfred Gichu - Clean Development Mechanism; opportunities for agroforestry in semi-arid areas, a case study for Kakuzi Division, Kenya (Masters; 2004-2007). Department of Env. sciences, School of Environmental Studies and Human Sciences, Kenyatta University
  17. David Mugambi - Analysis of recreational value and level of tourism satisfaction of Kakamega forest, Kenya. (Masters; 2004-2007). Department of Environmental sciences, School of Environmental Studies and Human Sciences, Kenyatta University
  18. Justin Muriuki - Economic evaluation of organic and inorganic technologies for soil nutrient enhancement in Mukuuni and Murugi, Central Kenya. (Masters; 2004-2008). Department of Environmental sciences, School of Environmental Studies, Kenyatta University
  19. Dedan Ndiritu Gatiki – Bioprospecting for medical plants in Kenya: A case study of Kakamega forest and its Environs. (Masters; 2004-2008). Department of Environmental sciences, School of Environmental Studies, Kenyatta University
  20. Muthamia Joses Muthomi – Determination of nutrient balances for improved soil fertility management in smallholder farms of Kirege Location, Central Highlands of Kenya. (Masters; 2005-

2008) Department of Environmental sciences, School of Environmental Studies and Human Sciences, Kenyatta University.

21. Mutegi Edwin Mwiti – Effects of soil fertility replenishment technologies on maize production in smallholder farms of Meru South District. (Masters; 2005-2008) Department of Env., School of Environmental Studies and Human Sciences, Kenyatta University.
22. Edith Gathoni Kirumba – Gender differentials in adoption of soil nutrient replenishment technologies in Meru South District, Kenya. (Masters; 2005-2008). Department of Environmental sciences, School of Environmental Studies, Kenyatta University
23. Andrew Kipkosgey Kiplagat – Assessing consumer demand and economic value of non-timber forest products (NTFPS) in Kakamega forest (Masters 2005 – 2008). Department of Environmental sciences, School of Environmental Studies, Kenyatta University.
24. Alfred Nyambane – Determination of genetic coefficients and agroecological potential of dual purpose soybean varieties in Kenya (Masters; 2005-2009). Department of Environmental sciences, School of Environmental Studies, Kenyatta University.
25. Luke Maina Njuguna – Factors influencing tree diversification at farm level in Runyenjes division, Embu district, Kenya (Masters; 2005-2010). Department of Environmental Sciences, School of Environmental Studies, Kenyatta University.
26. Agnes Mumo Kavoo - Interaction between organic resource quality, aggregate turnover, carbon and nitrogen cycling in the central highlands of Kenya (Masters; 2005-2008). Dept. of Biochemistry and Biotechnology, Sch. of Pure & Applied Sci, Kenyatta University
27. Samuel Kinyanjui Njoroge – Effect of mineral and organic resource management on aggregate formation and carbon cycling in the central highlands of Kenya (Masters; 2006-2011). Department of Env. Sciences, School of Env. Studies, Kenyatta University.
28. Bie Gielen – Options to reduce crop production risks due to erratic rainfall in central Kenya (Masters; 2009-2010). Dept Landbeheer, Katholieke Universiteit, Leuven, Belgium.
29. Ndayisaba Pierre Celestin - Legumes and fertilizer interactions as key integrated soil fertility management components for maize based systems in eastern Rwanda province (Masters; 2009 - 2013). Department of Env. Sciences, School of Env. Studies, Kenyatta University.
30. Zirhahwakuhingwa Munyahali Wivine - Assessment of commercial chemical products on the improvement of maize yield in different agro-ecological zones in Kenya (Masters; 2009 - 2013). Department of Env. Sciences, School of Environmental Studies, Kenyatta University.
31. Okeyo Akinyi Irene - Effects of climate variability on soil nutrients and maize production in the central highlands of Kenya (Masters; 2010 - 2014). Dept of Environmental Sciences, School of Environmental Studies, Kenyatta University
32. Abuli, Sianje Jackson - Effects of phosphorus sources and starter nitrogen on soil properties and soybean yield in central highlands of Kenya (Masters; 2010 - 2014). Department of Agricultural Resource Management, School of Agricultural Enterprise and Development, Kenyatta University
33. Njogu Evelyn Wambui – Effects of Tillage and Mulching on Maize yield, soil organic carbon and water retention in Kirege, Tharaka Nithi County, Kenya (Masters; 2014 – 2016) Department of Agricultural Resource Management, School of Agriculture, Embu University College.
34. Erick Oduor Otieno - Integrated soil nutrient management technologies for improved maize (*zea mays*) Productivity in farmer-managed trials in the central highlands of Kenya (Masters; 2016 - Current.), Department of Land and Water Management, School of Agriculture, University of Embu.
35. Nathan Okoth Oduor - Enhancing soil water productivity using selected soil management technologies in the central highlands of Kenya, (Masters; 2016 - 2018.), Department of Land and

36. Francis Mucira Murage – Enhancing soyabean production, economics and adoption among smallholder farmers of central highlands of Kenya, (Masters; 2017 – 2019). Department of Agricultural Resource Management, University of Embu.
37. Beryl Etemesi, - Crop growth modelling approach for scaling out soil fertility techniques in Central Highlands of Kenya, (Masters; 2017- 2019). Department of Land and Water Management, University of Embu.
38. Jane Akoth Omenda, - Effects of phosphate rock and organic input on soil bio-chemical properties in acidic soils of Tharaka-Nithi County, (Masters; 2017 -2019). Department of Land and Water Management, University of Embu.
39. **Jackline Kanana- Masters-ongoing.** Reg. no.: A500/1340/2019. *University of Embu* Integrated soil fertility and water management practices for enhanced sorghum productivity in the dryland of Tharaka- Nithi County, Kenya.
40. **Mercy Rugendo - Masters-ongoing.** Reg. no.: A500/1352/2019. *University of Embu* Resilience of Nitisols and Ferralsols to erosion as influenced by levels of soil organic matter in Tharaka-Nithi County, Kenya.
41. **Ann Mutwoki – Masters-ongoing.** Reg. no.: A505/1356/2020. *University of Embu* Response of Soil Physico-Chemical and Microbial Properties to Integrated Soil Fertility and Water Management Practices in Green Maize Production.

#### 4.2 PhD Theses Supervised

- 1 Catherine Kibunja - Nitrogen dynamics in response to long-term application of organic/inorganic sources of nutrients in maize-bean rotation at NARL, Kabete. PhD; 2000-2007). Department of Botany, Faculty of Science, University of Nairobi
- 2 John N Muriuki - The potentials of agroforestry in biodiversity conservation, soils improvement and sustainable development: a case study of the Mt. Kenya region (PhD; 2000-2007). Department of Env. Sciences, School of Env. Studies, Kenyatta University
- 3 Jayne N Mugwe - Evaluation of Integrated Soil Fertility Management Practices in the smallholder farms of Meru South District, Kenya. (PhD; 2002- 2007). Department of Environmental Sciences, School of Env. Studies and Human Sciences, Kenyatta University
- 4 Josiah Njiru Gitari - Use of Green manure legumes to enhance soil fertility for maize production in Embu and Mbeere Districts, Kenya. (PhD; 2002-2008). Department of Env. Sciences, School of Environmental Studies and Human Sciences, Kenyatta University
- 5 Monicah Mucheru-Muna - Evaluation of nitrogen dynamics as affected by soil fertility status and nutrient replenishment inputs in the central highlands of Kenya (PhD: 2004-2008). Department of Env. Sciences, School of Environmental Studies, Kenyatta University
- 6 John Kanyuithia Mutunga – Socio-economics empowerment of small holder farmers through community based tourism in Meru South district, Kenya (PhD: 2005-2008). Department of Environmental Sciences, School of Environmental Studies, Kenyatta University
- 7 Joseph Mutua Kimetu – Soil organic matter revitalization: Implications on food production and security in tropical agricultural systems (PhD: 2006-2009). Faculty of Graduate School, Cornell University, USA
- 8 Joseph Kabucho Githiomi – Toward development of a wood energy plan for Kenya: A case study for Micro-level planning for Kiambu, Thika and Maragwa districts, Kenya (PhD: 2006-2010). Department of Env. Sciences, School of Environmental Studies, Kenyatta University
- 9 Esther Muringo Wang'ombe - Impact of Participatory Forest Management in Mt. Kenya Forest Kenya (PhD: 2009-Current). Department of Environmental Sciences, School of Environmental Studies, Kenyatta University

- 10 Tito Edward Musingo Mbuvi – Assessment of forest decentralization types: a case study of three forest management regimes in Kenya (PhD: 2010 – Current). Department of Environmental Sciences, School of Environmental Studies, Kenyatta University
- 11 Kagombe Joram Kimenju - The Potential of Payment for Watershed Protection in Ndakai-ni dam, Gatanga District, Kenya (PhD: 2010 – 2017). Department of Environmental Sciences, School of Environmental Studies, Kenyatta University
- 12 Kiboi, Milka Ngonyo – Potential of different Soil fertility management techniques to enhance agricultural productivity in Tharaka Nithi and Murang’a Counties, Kenya. (PhD 2016 – 2019) Department of Land and Water Management, School of Agriculture, University of Embu.
- 13 Peterson Newton Muchiri Njeru - Effect of water harvesting and integrated soil fertility management technologies on sorghum and cowpea production systems in semi-arid areas of Kenya (PhD: 2011 – Current). Department of Agricultural Resource Management, School of Agricultural Enterprise and Development, Kenyatta University.
- 14 Asule, Pamellah Adamba, **PhD (2020)**. Reg. A800/205/2017. *University of Embu*. Communication and the adoption of soil fertility management innovations by farmers in Murang’a and Tharaka-Nithi counties, Kenya.
- 15 Miriam Waithira Githongo, **PhD (2021)**. Reg. no.: A800/227/2018. *University of Embu*. Soil carbon stocks and fluxes as influenced by tillage practices and soil inputs in Tharaka-Nithi county, Kenya.
- 16 James Muchoka, **PhD (2021)**. *University of Embu*. Mycorrhizal fungi associated with *Aspilota pruliseta* on phosphorous availability to sorghum plants.
- 17 **Nathan Okoth - PhD (2021)**. Reg. no.: A806/243/2018. *University of Embu* Integrated Soil Fertility and Water Management Practices for Enhanced Sorghum (*Sorghum bicolor*) Productivity in the Drylands of Tharaka-Nithi County, Kenya.
- 18 **Franklin Mairura – PhD (2021)**. Reg. no.: A800/207/2018. *University of Embu* Greenhouse gas emissions characterization and estimation under small holder crop systems in Tharaka- Nithi County.

#### **4.3. Theses Examined**

##### **4.3.1 Masters Theses Examined**

1. Samuel Mwai Masters of Environmental thesis (2000) titled 'Participatory Agroforestry Extension: The Experience with Small-scale farmers in Trans Nzoia District, Rift Valley Province, Kenya'. Department of Environmental Science, Faculty of Environmental Studies, Kenyatta University
2. Therese Musabe Masters of Environmental thesis (2001) titled 'Use of Non Timber Forest Products (NTP's) and its Ecological Impact on the Conservation of Nyungwe Forest Reserve in Rwanda'. Department of Environmental Science, Faculty of Environmental Studies, Kenyatta University
3. Margaret Nyakinyua Mwangi Masters of Environmental thesis (2002) titled 'Population Trends of Soil Invertebrate Macrofauna and their Role in Litter Decomposition within a Hedgerow Intercropping in Embu, Kenya'. Department of Environmental Foundation, Faculty of Environmental Studies, Kenyatta University
4. Joseph M. Kimetu Masters of Environmental thesis (2002) titled 'Nitrogen fertilizer equivalency values for different organic materials based on maize performance at Kabete, Kenya'. Department of Environmental Foundation, School of Pure and Applied Sciences, Kenyatta University.
5. F. K. Kirihiro Masters of Science thesis (2002) titled 'Response of green grams (*Vigna radiata* (L.) Wilezek) to fertilizer nitrogen, chicken manure application and rhizobium inoculation"

6. Monicah Wanjiku Mucheru Masters of Environmental thesis (2003) titled ‘Soil fertility improvement technologies for increased food production in Meru South District, Kenya’. Dept of Env. Foundation, School of Pure and Applied Sciences, Kenyatta University
7. Ruth Kangai Adiel Masters of Environmental thesis (2004) entitled “Assessment of adoption potential of soil fertility improvement technologies in Chuka division, Meru South, Kenya”. Department of Environmental Resource Conservation, School of Environment and Human Sciences, Kenyatta University
8. James Kinyua Mutegi Masters of Environmental thesis (2004) entitled “Use of *Calliandra calothyrsus* and *Leucaena tricantra* tree species for soil nutrient enhancement in Chuka division, central highlands of Kenya.
9. Mr. Peter Thiang’au Kamoni Masters of Environmental thesis (2004) entitled “Effect of soil water and nitrogen on maize growth and yield in a semi-arid environment”
10. Boaz S. Waswa Masters of Environment thesis (2004) entitled “Soil organic matter status under different agroforestry management practices in three selected sites in Kenya”, Dept. of Env. Science, School of Environmental Studies & Human Sciences, Kenyatta University
11. Mercy Karunditu Wanja’s Masters of Environment thesis (2005) titled “Effect of soil organic matter status on inorganic nitrogen fertilizer use efficiency in Embu, Kabete and Maseno, Kenya”, Dept. of Env. Science, School of Environmental Studies & Human Sciences, Kenyatta University
12. Mary Nyawira Muriithi Master of Philosophy (2005) thesis entitled “Influence of *Crotalaria/Tithonia* and phosphorus fertilization on arbuscular mycorrhizal fungal (AMF) symbiosis in maize”, Dept of Soil Science, Moi University
13. Franklin Somoni Mairura Masters of Environment thesis (2005) entitled “The role of indigenous knowledge in management of soil quality among farmers in Chuka and Gachoka Divisions”, Dept. of Env. Science, School of Environmental Studies & Human Sciences, Kenyatta University
14. Salome Wamuyu Muriuki Masters of Environment thesis (2006) entitled “Assessment of long-term impacts of organic & inorganic fertilizers on soil extractable phosphorus and carbon in Machanga, Mbeere District, Kenya”, Department of Environmental sciences, School of Environmental Studies and Human Sciences, Kenyatta University
15. Baaru Mary Wamuyu Masters of Environment thesis (2006) entitled “Effect of organic materials of different quality and inorganic fertilizer on soil microbial biomass at Kabete, Kenya”. Dept of Env. Sci, Sch of Env.Studies and Human Sciences, Kenyatta University
16. Angela N. Kathuku Masters of Science thesis (2006) entitled “Integrated soil fertility management: monitoring nutrient flow and use of organic and mineral sources of nutrients for enhanced maize production in Central Kenya”. Sch of Agric. & Biotechn, Moi University.
17. David Mugambi M Gilbert Masters of Environment thesis (2007) titled “Valuation of Recreational Benefits and Assessment of Tourists’ satisfaction in Kakamega Forest, Kenya. Dept of Env. Sci., Sch of Env. Studies and Human Sciences, Kenyatta University
18. Andrew Kipkosgey Kiplagat Masters of Environment thesis (2008) titled “Assessing consumer demand and economic value of non-timber forest products in Kakamega forest, Kenya. Department of Env. Scie, School of Env. Studies, Kenyatta University.
19. Muthamia Joses Muthomi Masters of Environment thesis (2008) titled “Determination of partial nutrient balances for improved soil fertility management in smallholder farms of Kirege Location, Central Highlands of Kenya. Department of Environmental sciences, School of Environmental Studies and Human Sciences, Kenyatta University
20. Naomi Njeri Kamau. MSc Thesis (2009). The effect of dual inoculation with mycorrhiza and rhizobium on growth performance of soyabeans in acidic soils in Gatanga, Kenya. Department of Env sciences, School of Environmental Studies, Kenyatta University.

21. Alfred Gichu, Masters thesis (2009) title Clean Development Mechanism; opportunities for agroforestry in semi-arid areas, a case study for Kakuzi Division, Kenya. Department of Env sciences, School of Environmental Studies and Human Sciences, Kenyatta University
22. Justin Muriuki, Masters thesis (2009) titled Economic evaluation of organic and inorganic technologies for soil nutrient enhancement in Mukuuni and Murugi, Central Kenya. Department of Env sciences, School of Environmental Studies, Kenyatta University
23. Mutegi Edwin Mwiti, Masters thesis (2009) “Effects of soil fertility replenishment technologies on maize production in smallholder farms of Meru South District”. Department of Env. sciences, School of Environmental Studies, Kenyatta University.
24. Edith Gathoni Kirumba, Masters Thesis (2009) titled Gender differentials in adoption of soil nutrient replenishment technologies in Meru South District, Kenya. Department of Environmental sciences, School of Environmental Studies, Kenyatta University.

#### **4.3.2 PhD Theses Examined**

1. Eva L. Ohlsson doctoral (PhD) thesis (1999) on 'Agroforestry for Improved Nutrient Cycling on Small Farms in Western Kenya'. Department of Ecology & Crop Production Sciences, Uppsala, Swedish Agricultural University (SLU).
2. Victor Aguilar doctoral (PhD) thesis (2001) on 'Selective Weed and Ground Cover Management in a Coffee Plantation with Shade Trees in Nicaragua'. Department of Ecology & Crop Production Sciences, Uppsala, Swedish Agricultural University (SLU).
3. Margaret G. Karembu's PhD thesis (2001) entitled 'Developing Responsible Environmental Behaviour through the Formal School Curriculum'. Department of Environmental Science, Faculty of Environmental Studies, Kenyatta University
4. Catherine Kibunja PhD thesis (2007) titled “Nitrogen dynamics in response to long-term application of organic/inorganic sources of nutrients in maize-bean rotation at NARL, Kabete”. Department of Botany, Faculty of Science, University of Nairobi.
5. Jayne N Mugwe PhD thesis (2007) titled “Evaluation of Integrated Soil Fertility Management Practices in the smallholder farms of Meru South District, Kenya. Department of Environmental Sciences, School of Environmental Studies and Human Sciences, KU
6. Josiah Njiru Gitari PhD thesis (2008) “use of green manure legumes to enhance soil fertility for maize production in Embu and Mbeere districts, Kenya. Department of Environmental Sciences, School of Environmental Studies and Human Sciences, Kenyatta University
7. Monicah Mucheru-Muna PhD thesis (2008) titled Evaluation of nitrogen dynamics as affected by soil fertility status and nutrient replenishment inputs in the central highlands of Kenya. Department of Env. Sciences, School of Environmental Studies, Kenyatta University.
8. John Kanyuithia Mutunga PhD thesis (2008) titled Socio-economics empowerment of small holder farmers through community based tourism in Meru South district, Kenya. Department of Environmental Sciences, School of Environmental Studies, Kenyatta University.

#### **5.0. RESEARCH GRANTS & FELLOWSHIPS**

1. 1988-1990, IDRC Fellowship for graduate studies at the Univ. of Nairobi, Kenya
2. 1992-1997, The Rockefeller Foundation grant (US\$ 150,000) to conduct agroforestry research at Embu, Kenya, and a fellowship to pursue Ph.D. studies at the University of Florida, FL, USA.
3. 1998-1999, The Rockefeller Foundation African Career Award (US\$ 32,000) to conduct research on Soil-N movement and its management in the central highlands of Kenya.
4. 2000-2003, The Rockefeller Foundation Forum on Agricultural Husbandry Grant (US\$ 110,000)

to conduct research on the use of low-input technologies for enhancement of soil fertility and food production in the central highlands of Kenya.

5. 2001-2002, The Rockefeller Forum preparatory grant (\$4,996) to quantify mineral-nitrogen movement in the soils of the central highlands of Kenya
6. 2001-2003, The Rockefeller Foundation African Career Award (US\$ 34,000) to conduct research on nutrient management by use of agroforestry trees for improved soil productivity in the central highlands of Kenya.
7. 2001-2003, The Rockefeller Foundation Forum on Agricultural Husbandry Grant (US\$ 66,700) to conduct research on 'Sense of SOM - a preliminary evaluation of impact of organic resource management on soil organic matter status and its relationship to crop growth'
8. 2003-2008, The Flemish Interuniversity Council (VLIR - Belgium) Own Initiatives Grant (Euro 309,426) to conduct research on integrated soil fertility management strategies to enhance food security in the central highlands of Kenya.
9. 2003-2005, The Rockefeller Foundation Grant (US\$ 37,550) to conduct research on the long-term effects of organic and inorganic phosphorus fertilizers on soil fertility in semi-arid areas of Kenya.
10. 2004-2006, FARM Africa MATF Grant (UK£ 60,000) to conduct research on participatory scaling-up of soil nutrient management technologies for increased crop yields in smallholder farms of central highlands of Kenya.
11. 2005-2007, Regional Universities Forum for Capacity Building in Agriculture (FORUM) Grant (\$62,250.00) to scale out soil nutrient management technologies for improved crop production in the smallholder farms of Meru South District, Kenya
12. 2005-2008, European Commission funded multi-institutional project on Africa-NUANCES – Exploring tradeoffs in natural resource management, being implemented by 19 institutions both in Europe and Africa (Euro 2,000,000.00)
13. 2006-2007, Commission for Higher Education (CHE) funded proposal on food security enhancement using soil nutrient replenishing technologies in the small holder farms of the central highlands of Kenya (Ksh. 3 million).
14. 2008-2013; The Flemish Interuniversity Council Own Initiative (VLIR - UOS) Belgian Government funded grant (Euro 309,998.58) to conduct research on enhancing farmers' benefits from integrated soil fertility management through improved water use efficiency and better marketing strategies in the highlands of central Kenya
15. 2009-2012; Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) funded proposal on Accelerated Uptake and Utilization of Soil Fertility Management Best-Bets Practices in ECA Region (US\$ 577,775.00).
16. 2010-2013; Alliance for a Green Revolution for Africa (AGRA) funded proposal on Enhancing productivity and market development of soya beans and climbing beans in central highlands of Kenya. (US\$ 806,629.00).
17. 2010-2013; Alliance for a Green Revolution for Africa (AGRA) funded proposal on Masters Training Programme in Integrated Soil Fertility Management at Kenyatta University (US\$ 715,697.00).
18. 2012-2014; Improving Agricultural Productivity in Mixed Cropping Systems through Application of Knowledge-Based Technologies Generated with the Aid of Nuclear Techniques. Country Project funded by IAEA (Euro 97,000.00).



19. 2012-2016; Unraveling beneficial impact of nitrogen, carbon and water dynamics in mulch-based systems on crop productivity in central Kenyan highlands IAEA funded proposal (Euro 40,000).
20. 2014- 2017; Scaling up soybean and climbing beans using a value chain approach in maize-based systems of central Highlands of Kenya (SHP 014). Funded by AGRA (US\$495,000)
22. “Climate-smart options allowing agricultural intensification for smallholders in the dry zones of the Central Highlands of Kenya” funded by VLIRU-OS, Belgium, 2019 to 2022 (€ 279,113).
23. “Towards quantifying greenhouse gas emissions and deriving emission factors from organic and inorganic fertilized farming systems of Kenya” Funded by National Research Foundation, Kenya, 2017 to 2020 (Principal Investigator) (US\$ 140,000).
24. “Understanding mechanisms of sustainable intensification of tropical maize cropping systems on degraded soils through regenerative practices” Funded by Swiss National Science Foundation, 2024 – 2028 (999,964 CHF)
25. “Strengthening rural resilient to Climate change; agroforestry systems (GALILEO)” Funded by the European Union 2025 – 2028 (USD 308,099.97)

## 6.0 PUBLICATIONS

### 6.1 Papers/Publications in Refereed Journals

1. **Mugendi DN**, Mochoge BO, Coulson CL, Stigter CJ and Sang FK 1994. Decomposition of *Cassia siamea* in the semiarid Machakos, Kenya. *Arid Soil Research and Rehabilitation* 8:363-372.
2. **Mugendi DN**, O'Neill M and Seward P 1994. Evaluation of potential of leaves of multipurpose tree species as source of nitrogen for maize. *African Crop Science Journal* 2:273-278.
3. Mafongoya PL, **Mugendi DN**, and Pedereira C 1995. Evaluation of *Leucaena leucocephala* as a source of N for maize. *African Crop Science Journal* 4:249-255.
4. **Mugendi DN** 1996. Book review. The Biological Management of Tropical Soil Fertility, Woomer PL and Swift MJ (eds). *Agroforestry Systems* 33:99-100.
5. **Mugendi DN**, Mochoge BO, Coulson CL, Stigter CJ and Sang FK 1997. Effect of incorporating *Cassia siamea* prunings on maize yield in semiarid Kenya. *African Crop Science Journal* 5:201-207.
6. **Mugendi DN** and Nair PKR 1997. Predicting decomposition patterns of tree biomass in tropical highland microregions of Kenya. *Agroforestry Systems* 35:187-201.
7. Mwangi JN, **Mugendi DN**, and O'Neill KM 1998. Crop yield response to incorporation of leaf prunings in sole and alley cropping systems. In: People and Institutional Participation in Agroforestry for Sustainable Development. *East African Agricultural and Forestry Journal* 61:197-205.
8. **Mugendi DN**, Nair PKR, Mugwe JN, O'Neill MK, and Woomer PL 1999. Alley cropping of maize with calliandra and leucaena in the subhumid highlands of Kenya: Part 1. Soil-fertility changes and maize yield. *Agroforestry Systems* 46:39-50.
9. **Mugendi DN**, Nair PKR, Mugwe JN, O'Neill MK, Swift MJ, and Woomer PL 1999. Alley cropping of maize with calliandra and leucaena in the subhumid highlands of Kenya: Part 2. Biomass decomposition, N mineralization, and N uptake by maize. *Agroforestry Systems* 46:51-64.
10. **Mugendi DN**, Nair PKR, Graetz DA, and O'Neill MK 2000. Nitrogen recovery by alley-cropped maize and trees from <sup>15</sup>N labeled tree biomass. *Biology and Fertility of Soils* 31:97-101.
11. **Mugendi DN** 2001. Book review. Principles and applications of soil microbiology. Sylvia DM,

12. Mungai DN, Coulson CJ, Stigler, JK Ng'ang'a and **DN Mugendi** 2001. Phenotypic nutrient uptake differences in an alley cropping system in semi-arid Machakos, Kenya. *J. Environmental Science*. Vol. 13, No. 2 pp 164-169
13. **Mugendi DN**, Kanyi MK, Kung'u JB, Wamicha MN and Mugwe JN 2004. The role of agroforestry trees in intercepting leached nitrogen in the farming systems of the central highlands of Kenya. *East African Agricultural and Forestry Journal* 69:69-79.
14. Kimetu JM, **Mugendi DN**, Palm CA, Mutuo PK, Gachengo CN, Bationo A, Nandwa S and Kung'u JB 2004. Nitrogen fertilizer equivalencies of organics of differing quality and optimum combination with inorganic nitrogen source in central Kenya. *Nutrient Cycling in Agroecosystems* 68:127-135.
15. Bekunda MA, Ebanyat P, Nkonga E, **Mugendi DN**, and Msaky JJ 2004. Soil fertility status, management and research in East Africa. *Eastern Africa Journal of Rural Development* 20:94-112.
16. Kimetu JM, **Mugendi DN**, Bationo A, Palm CA, Mutuo PK, Kihara J, Nandwa S and Giller K 2006. Partial balance of nitrogen in a maize cropping system in humic nitisol of Central Kenya. *Nutrient Cycling Agroecosystems* 76:261-270
17. Okalebo JR, Othieno CO, Woomer PL, Kasranja NK, Semoka JRM, Bekunda MA, **Mugendi DN**, Muasya RM, Bationo A and Mukhwana EJ 2006. Available technologies to replenish soil fertility in East Africa. *Nutrient Cycling Agroecosystems* 76:153-170
18. Mucheru-Muna MW, **Mugendi DN**, Kung'u J, Mugwe J, Bationo A 2007. Effects of organic and mineral fertilizer inputs on maize yield and soil chemical properties in a maize cropping system in Meru South District, Kenya. *Agroforestry Systems* 69: 189-197
19. Mairura FS, **Mugendi DN**, Mwanje JI, Ramisch JJ, Mbugua PK and Chianu JN 2007. Integrating scientific and farmers' evaluation of soil quality indicators in central Kenya. *Geoderma* 139: 134-143
20. Mairura FS, **Mugendi DN**, Mwanje JI, Ramisch JJ, Mbugua PK and Chianu JN 2008. Scientific evaluation of smallholder land use knowledge in central Kenya. *Land Degrad. Develop* 19: 77-90.
21. Kungu J, Kihara J, **Mugendi DN**, Jaenicke H (2008). Effect of small scale farmers' tree nursery growing medium on agroforestry tree seedlings quality in Mt. Kenya region. *Scientific Research Essay* 3(8): 359-364.
22. Mutegi JK, **Mugendi DN**, Verchot LV and Kung'u JB (2008). Combining napier grass with leguminous contour hedgerows controls soil erosion without competing with crops. *Agroforest Syst* DOI 10.1007/s10457-008-9152-3.
23. Kimetu JM, Lehmann J, Ngoze S, **Mugendi DN**, Kinyangi J, Riha S, Verchot L, Recha J, Pell A. (2008). Reversibility of soil productivity decline with organic matter of differing quality along a degradation gradient. *Ecosystems* 11: 726 - 739.
24. **Mugendi D**, Mucheru-Muna M, Mugwe J., Kungu J, Bationo A (2008). Best bet soil fertility technologies for improved food production in the Central Highlands of Kenya. *African Journal of Environmental Studies and Development* 1: 8-15.
25. Mucheru-Muna M., **Mugendi DN**., Mugwe J and Kung'u J. Maize yields and mineral –N movement as affected by organic and inorganic inputs in a humic nitisol in Meru South District, Kenya (2008). *African Journal of Env. Studies and Development* 1: 99 - 107.
26. Mugwe J., **Mugendi DN**, Kungu J and Mucheru-Muna M (2009). Maize yields response to application of organic and inorganic inputs under on-station and on-farm experiments in central Kenya. *Expl Agric* 45: 47-59.

27. Mugwe J., **Mugendi DN**, Mucheru-Muna M, Merckx R, Chianu J and Bernard V (2009). Determinants of the decision to adopt integrated soil fertility management practices by small holder farmers in the central highlands of Kenya. *Expl Agric* 45: 61-75.
28. Mugwe J., Mucheru-Muna M., **Mugendi DN**, Kungu J, Bationo A and Mairura F (2009). Adoption potential of selected organic resources for improving soil fertility in the central highlands of Kenya. *Agroforest. Syst.* 76:467-485. DOI 10.1007/s10457-009-9217-y
29. Kimetu JM, Lehmann J, Kinyangi J, Cheng C, Thies J, **Mugendi DN**, Pell A (2009). Soil organic C stabilization and thresholds in C saturation. *Soil Biology & Biochem.* 41:2100-2104
30. Mugwe J., **Mugendi DN**, Mucheru-Muna Odee D, Mairura F (2009). Effect of selected organic materials and inorganic fertilizer on the soil fertility of a Humic Nitisol in the central highlands of Kenya. *Soil Use and Management* 25:434-440.
31. Shisanya CA, Mucheru MW, **Mugendi DN**, Kung'u JB (2009). Effect of organic and inorganic nutrient sources on soil mineral nitrogen and maize yields in central highlands of Kenya. *Soil & Tillage Research* 103:239-246.
32. Titttonel P, Muriuki A, Shepherd KD, **Mugendi DN**, Kaizzi KC, Okeyo J, Verchot L, Coe R, Vanlauwe B (2010). The diversity of rural livelihoods and their influence on soil fertility in agricultural systems of East Africa – A typology of smallholder farms. *Agric Syst.* 103: 88-97
33. Mucheru-Muna M, Pypers P, **Mugendi DN**, Kungu J, Mugwe J, Merckx R, Vanlauwe B (2010). A staggered maize-legume intercrop arrangement robustly increases crop yields and economic returns in the highlands of central Kenya. *Field Crops Research* 115:132-139.
34. Kiplagat KA, Mburu J and **Mugendi DN** (2010). Assessing tropical forest's contribution to local communities livelihoods using forest product substitutes: A case study. *Int. J. Ecol. Econ. Stat.* 17:51-65.
35. Kibunja CN, Mwaura FB. and **Mugendi DN**. (2010). Long-term land management effects on soil properties and microbial populations in a maize-bean rotation at Kabete, Kenya *African Journal of Agricultural Research* Vol. 5 (2):108-113.
36. Kihara J, Bationo A, **Mugendi DN**, Martius C, Vlek PLG (2011). Conservation tillage, local organic resources, and nitrogen fertilizer combinations affect maize productivity, soil structure and nutrient balances in semi-arid Kenya. *Nutr Cycl Agroecosyst* 90:213–225.
37. Muthamia JM, **Mugendi DN**, Kung'u JB, Vanlauwe B (2011). Between and within-farm variability in soil fertility management and status in the central highlands of Kenya. *Agricultural Science and Technology* 1:270-284.
38. Kibunja CN, Mwaura FB, **Mugendi DN**, Kitonyo EM, Salema MP (2011). Nitrogen (N) Use efficiency under continuous maize-bean cropping system in semi-humid highlands of Kenya. *E. Afr. agric For J.* 76: 115-120.
39. Kirumba EG, **Mugendi DN**, Mugwe JN (2011). Gender differentials in adoption of soil fertility improvement technologies in central Kenya. *Journal of Agricultural Science and Technology* 15:1-11.
40. Githiomi JK, **Mugendi DN** and Kung'u JB (2011). Analysis of household energy sources and woodfuel utilisation technologies in Kiambu, Thika and Maragwa districts of Central Kenya. *Journal of Horticulture and Forestry* 4 (2):43-48.
41. Githiomi JK, Kung'u JB and **Mugendi DN** (2012). Analysis of woodfuel supply and demand balance in Kiambu, Thika and Maragwa districts of Central Kenya. *Journal of Horticulture and Forestry* 4 (6):103-110.

42. Githiomi JK, **Mugendi DN** and Kung'u JB (2012). Household tree planting and its related constraints in meeting woodfuel production in Kiambu, Thika and Maragwa districts of central Kenya. *Journal of Horticulture and Forestry* 4:120-125.
43. Kimaru-Muchai SW, Mucheru-Muna M, Mugwe JN, Mairura FS and **Mugendi DN** (2012). The effect of education levels in dissemination of soil fertility management information in the central highlands of Kenya. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* 113:89-99.
44. Edwin Mwititi Mutegi, James Biu Kung'u, Mucheru-Muna, Pypers Pieter, **Daniel Njiru Mugendi** (2012). Complementary effects of organic and mineral fertilizers on maize production in the smallholder farms of Meru South District, Kenya. *Agricultural Sciences* 3: 221-229
45. Edwin Mwititi Mutegi, James Biu Kung'u, Mucheru-Muna and **Daniel Njiru Mugendi** (2012). Consequences of organic-mineral N soil fertility amendments on nitrogen uptake and maize grain yield in the smallholder farms of Meru South district, Kenya. *Sky Journal of Soil Science and Environmental Management* 1: 9-14.
46. Kimaru-Muchai SW, Mucheru-Muna M, Mugwe JN, Mairura FS, **Mugendi DN** (2013). Gender disparities in uptake of information on soil fertility management in the central highlands of Kenya. *International Journal of Agricultural Science and Research* 3: 197-206.
47. Njeru PNM, Mugwe J, Maina I, Mucheru-Muna M, **Mugendi DN**, Lekasi JK, Kimani SK, Miriti J, Esilaba AO and Muriithi F (2013). Integrating scientific and farmers' perception towards evaluation of rain-fed agricultural technologies for sorghum and cowpea productivity in Central Kenya. *Journal of Soil Science and Environmental Management (JSSEM)* 4 (7) 123-131.
48. Ngetich KF, Mucheru-Muna M, Mugwe JN, Shisanya CA, Diels J and **Mugendi DN** (2014). Length of growing season, rainfall temporal distribution, onset and cessation dates in the Kenyan highlands. *Agricultural and Forest Meteorology* 188: 24-32.
49. A.I. Okeyo, M. Mucheru-Muna, J. Mugwe, K.F. Ngetich, **D.N. Mugendi**, J. Diels, C.A. Shisanya (2014). Effects of selected soil and water conservation technologies on nutrient losses and maize yields in the Central Highlands of Kenya. *Dryland Agriculture* 137: 52-58.
50. M., Oscar Kisaka, M. Mucheru-Muna, F. K., Ngetich, J., Mugwe, **Mugendi DN**, and F., Mairura (2014). Seasonal Rainfall Variability and Efficacy of Geostatistical and Deterministic Interpolation Techniques: Case of Eastern Arid Region, Kenya. *Dryland Agriculture*, 141: 187-206).
51. Serah W.K. Muchai, Monicah W. M. Muna, Jane N. Mugwe, **Daniel N. Mugendi**, Franklin S. Mairura (2014). Client Focused Extension Approach for Disseminating Soil Fertility Management in Central Kenya. *International Journal of Agricultural Extension* 2 (2): 129-136
52. Joseph Macharia, Jayne Mugwe, Monica Mucheru-Muna, and **Daniel Mugendi** (2014). Socioeconomic Factors Influencing Levels of Knowledge in Soil Fertility Management in the Central Highlands of Kenya. *Journal of Agricultural Science and Technology B* 4 (2014) 701-711
53. Ngetich, K. F., Diels, J., Shisanya, C. A., Mugwe, J. N., Mucheru-Muna, M. and **Mugendi, D.N.** (2014). Effects of selected soil and water conservation techniques on runoff, sediment yield and maize productivity under sub-humid and semi-arid conditions in Kenya. *Catena*, 121, 288-296. doi: 10.1016/j.catena.2014.05.026.
54. Kisaka M.O., Monicah Mucheru-Muna, Ngetich, K.F., Mugwe, J.N., **Mugendi, D.N.**, Mairura, S.F., Muriuki, J. (2015). Using APSIM-model as a decision-support-tool for long-term Integrated-Nitrogen-Management and maize productivity under semi -arid conditions in Kenya. *Experimental Agriculture* 04/2015; 2015(2015):21. doi:10.1017/S0014479715000095.
55. Kisaka M.O., Monicah Mucheru-Muna, Ngetich, K.F., Mugwe, J.N., **Mugendi, D.N.**, Mairura, F., Shisanya, C., Makokha G. L. (2015). Potential of deterministic and geostatistical rainfall

interpolation under high rainfall variability and dry spells: case of Kenya's Central Highlands. *Theoretical and Applied Climatology*, doi:10.1007/s00704-015-1413-2

56. Kisaka M. O., M. Mucheru-Muna, F. K. Ngetich, J. N. Mugwe, **D. Mugendi**, and F. Mairura (2015); Rainfall Variability, Drought Characterization, and Efficacy of Rainfall Data Reconstruction: Case of Eastern Kenya, *Advances in Meteorology*, Volume 2015 (2015), Article ID 380404, 16 pages.
57. Esther W. Mugi-Ngenga, M.W. Mucheru-Muna, J.N. Mugwe, F.K. Ngetich, F.S. Mairura, **D.N. Mugendi** (2015): Household's socio-economic factors influencing the level of adaptation to climate variability in the dry zones of Eastern Kenya. *Journal of Rural Studies* 12; 43:49-60. DOI: 10.1016/j.jrurstud.2015.11.004
58. Milka Kiboi, Felix Kipchirchir Ngetich, Jan Diels, Monicah Mucheru-Muna, Jayne Mugwe, **Daniel Mugendi**, (2017): Minimum tillage, tied ridging and mulching for better maize yield and yield stability in the Central Highlands of Kenya. *Soil and Tillage Research* 04/2017; 170:157-166., DOI:10.1016/j.still.2017.04.001.
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41. **Mugendi DN**, Monicah Mucheru-Muna, Jayne Mugwe, James Kung'u and Andre Bationo, 2007. Improving food production using 'best bet' soil fertility technologies in the Central highlands of Kenya. In: Bationo et al. (eds.), Advances in Integrated Soil Fertility Management in Sub-Saharan Africa: Challenges and Opportunities, pp 345–351, Springer NL.
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53. Kibunja CJ, Mwaura FB, **Mugendi DN**, Wamae DK, Bationo A (2011). Long term land management effects on crop yields and soil properties in the sub-humid highlands of Kenya. In: Bationo et al. (eds.), *Innovations as key to the green revolution in Africa*, pp 169-174, Springer, Dordrecht, NL
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60. Kirumba EG, **Mugendi DN**, Karega R, Mugwe J, (2011). Gender differentials in adoption of soil nutrient replenishment technologies in Meru South District, Kenya. In: Bationo et al. (eds.), *Innovations as key to the green revolution in Africa*, pp 887-896, Springer, Dordrecht, NL
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64. Kisaka, O., Mucheru-Muna, M., Ngetich, K.F., Mugwe, J., **Mugendi, D.**, Mairura, F., (2015). Seasonal Rainfall Variability and Drought Characterization: Case of Eastern Arid Region, Kenya. In Leal F W, E Esilaba, A O., Rao, K.P.C., Sridhar, G., 2015. Adapting African Agriculture to Climate Change, Springer International Publishing, Switzerland. <http://dx.doi.org/10.1007/978-3-319-13000-2>

#### 6.4. Books Published/Edited

1. Gichuru MP, Bationo A, Bekunda MA, Goma HC, Mafongoya PL, **Mugendi DN**, Murwira HM, Nandwa SM, Nyathi PN and Swift MJ (eds.) 2003. *Soil Fertility Management in Africa: A Regional Perspective*. Academic Science Publishers, Nairobi, Kenya.
2. Mureithi JG, Macharia PN, Gichuru M, Mburu MWK, **Mugendi DN** and Gachene CKK (eds.), 2003. Proceedings of the 18<sup>th</sup> Soil Science Society of East Africa (SSSEA) Conference held in Mombasa on 4<sup>th</sup> –8<sup>th</sup> Dec 2000. Mombasa, Kenya.
3. **Mugendi DN**, Kironchi G, Gicheru PT, Gachene CKK, Macharia PN, Mburu M, Mureithi JG and Maina F (eds.) 2005. Proceedings of the 21<sup>st</sup> Soil Science Society of East Africa (SSSEA) Conference held in Eldoret on 1<sup>st</sup> – 5<sup>th</sup> December 2003. Eldoret, Kenya.
4. Waswa F, Otor S and **Mugendi DN** (eds) 2006. Environment and Sustainable Development: A Guide for Tertiary Education in Kenya, Vol 1. Kenyatta University, Downtown Printing Works, Nairobi, Kenya.
5. Mugenda O, **Mugendi D**, Waudo J, Gravenir F, Akuno E, Mutundu K, Otolo M and Ndiritu J (eds.) 2006. The Role of African Universities in the Attainment of the Millennium Development Goals. A publication of selected papers presented at the MDG Conference held on November 14-18, 2005, Kenyatta University, Nairobi, Kenya
6. **Mugendi DN**, Mucheru-Muna MW and Mugwe JN (Eds) 2006. Soil Fertility: Enhancing Community Extension. Manilla Publishers, Nairobi, Kenya
7. Waswa F, Otor S, Olukoye G and **Mugendi D** (Eds) 2007. Environment and Sustainable Development: A Guide for Higher Education in Kenya, Vol 2. School of Environmental Studies and Human Sciences, Kenyatta University, Press, Nairobi, Kenya.
8. Kirumba EG, **Mugendi DN**, Karega R, Mugwe JN, 2011. Gender differentials in adoption of soil replenishment technologies in Meru South District, Kenya. Springer.
9. **Mugendi DN**, Mucheru-Muna MW and Mugwe JN (Eds) 2012. Soil Fertility: Enhancing Community Extension. Manilla Publishers, Nairobi, Kenya (2<sup>nd</sup> Revised Edition).

#### 6.5 Other Publications Related Works

1. Reviewed journal articles for Agroforestry Systems and Plant and Soil Journals between 1993 and 1997.
2. Served as invited Editor to Agriculture, Environment and Ecosystem Journal, 2003-2008

## **7.0 WORKSHOPS/SEMINARS/CONFERENCES**

### **7.1 Workshops/Seminars/Conferences Attended**

1. July-Aug 1985: One-week workshop on seed collection at Moi University, Eldoret, Kenya.
2. Aug.-Sept. 1987: Three-week training seminar on methods of soil analysis at the Reading University U.K, sponsored by Common Wealth Science Council.
3. Nov. 1987: Two-week second National seminar on agroforestry & soil conservation at ICRAF Headquarters, Nairobi, sponsored by ICRAF & IBSRAM.
4. Nov. 1989: One-week review workshop on "Amelioration of Soil by Trees" at ICRAF Headquarters Nairobi, Kenya, sponsored by Common Wealth Science Council.
5. Nov.- Dec. 1989: Two-week workshop on research in soil management and agroforestry at ICRAF Hqs Nairobi, Kenya, sponsored by ICRAF & IBSRAM.
6. Jul 1990: One-week training of trainers' Course at JICA/KEFRI Regional Training Centre at Kitui, Kenya, sponsored by JICA & KEFRI.
7. Aug. 1990: One-week International workshop on *Grevillea robusta* at ICRAF Hqs, Nairobi, Kenya, sponsored by ACIAR, CSIRO & ICRAF.
8. Sept. 1990: Two-week AFNETA training seminar at KEFRI Hqs, Muguga, Kenya, sponsored by AFNETA and ICRAF.
9. Oct. 1990: One-week conference on the "Environment 2000" at the United Nations headquarters, Nairobi, Kenya, sponsored by KENGO & NES.
10. Jul 1991: One-week AFRENA workshop at ICRAF Headquarters Nairobi, Kenya.
11. Sept. 1991: Two-day DARP synthesis workshop at Machakos, Kenya.
12. Dec. 1991: Two-week training workshop on Nutrient Cycling and Land Management at Muguga, Kenya, organized by TSBF.
13. Jun 1992: One-week AFRENA annual conference at Kigali, Rwanda.
14. Jul 1992: One-week TSBF planning workshop at Malindi, Kenya.
15. Jul 1993: 1-wk workshop on Resource Integration at Harare, Zimbabwe, organized by TSBF.
16. Nov. 1994: One-week ASA, CSSA, SSSA annual conference at Seattle, WA, USA.
17. May 1995: One-week workshop at Entebbe, Uganda, organized by TSBF.
18. Sept. 1995: One-week symposium on decomposition and litter quality aspects at Wye College, London, UK.
19. Nov. 1996: One-week ASA, CSSA, SSSA, annual conference at Indianapolis, IN, USA.
20. Jan. 1997: One-week Africa Crop Science Conference, Pretoria, South Africa.
21. Jan. 1997: One-week TSBF workshop at Nyselvey, South Africa.
22. Feb. 1997: ONE-week conference on Building Bridges with Traditional Knowledge at the University of Florida, Gainesville, FL, USA.

23. Oct. 1997: One-week ASA, CSSA, SSSA annual conference at Anaheim, California, USA.
24. Feb. 1998: One-week AFRENA-ECA planning workshop at Butare, Rwanda.
25. Mar 1998: Three-day AHI workshop at Green Hills Hotel, Nyeri, Kenya.
26. May 1998: Two-day National Agroforestry Research Project workshop on High-Valued Tree in Kirinyaga, Kenya.
27. Nov 98: Three-day National Agroforestry Research Project workshop at Embu, Kenya.
28. Jan. 1999: One-week tree pruning and management workshop at Kabale, Uganda.
29. Mar 1999: Three-day workshop at Nairobi on Managing Soil Fertility: Use of Organic x Inorganic fertilizers.
30. May 1999: One-week 10<sup>th</sup> ISCO conference at Purdue University, IN, USA.
31. Sept 1999: One-week 17<sup>th</sup> Soil Science Society of East Africa (SSSEA) conference at Kampala, Uganda.
32. Sept 1999: One-week 7<sup>th</sup> African Network (AfNet) workshop sponsored by TSBF at Kampala, Uganda.
33. Oct 99: Four-day workshop on the use of models (esp. APSIM) at ICRAF Hqs, Nairobi.
34. Nov 2000: 1-week ASA, CSSA, SSSA annual conference at Minneapolis, MN, USA
35. Nov 2000: one-week ACA (Rockefeller Foundation) workshop on improving the Focus and Impact of Development Research at Windsor, Kiambu, Kenya
36. Nov 2000: "Closing the loop": Identifying N sources and minimizing N losses in leguminous cropping systems workshop held at Mazvekedei, Zimbabwe
37. Dec 2000: one-week 18<sup>th</sup> Soil Science Society of East Africa (SSSEA) conference at Mombasa, Kenya.
38. May 2001: one-week 8<sup>th</sup> AfNet workshop sponsored by TSBF at Arusha, Tanzania.
39. Oct 2001: one-week Africa Crop Science Conference, Lagos, Nigeria.
40. Dec 2001: one-week 19<sup>th</sup> Soil Science Society (SSSEA) conference at Moshi, Tanzania.
41. May 6-7 2002: Two-day stakeholders workshop on integrated soil fertility management strategies at Izaak Walton hotel, Embu, Kenya
42. Aug 2002: One-week 5<sup>th</sup> Regional Rockefeller Foundation Forum Meeting in Uganda.
43. Nov 02: One-week ASA, CSSA, SSSA annual conference at Indianapolis, Indiana, USA
44. Dec 2002: one-week 20<sup>th</sup> SSSEA conference at Mbare, Uganda
45. Mar 2003: One-week FARA SSA-CP Programme Formulation Workshop at Accra, Ghana
46. Apr 2003: 1-wk ANAFE Symposium on Building Agricultural & natural resources education in Africa: quality and relevance of tertiary education, held in KU, Nairobi, Kenya
47. Apr 2003: Two-weeks training workshop on Monitoring Nutrients Flows and Economic Performance in Tropical Farming Systems (NUTMON) in ICRAF, Nairobi, Kenya



48. October 2003: One-week Africa Crop Science Conference, Nairobi, Kenya
49. Dec. 2003: 1-week 21<sup>st</sup> Soil Science Society of East Africa conference at Eldoret, Kenya
50. January 2004: 1-week workshop on Nitrogen Fertilizer Rapid Assessment Project (NFRAP) organized by the Scientific Committee on Problems of the Environment (SCOPE) in Kampala, Uganda
51. May 2004: One-week AfNet TSBF-CIAT Symposium at Yaounde, Cameroon
52. June-July 2004: One-week 1<sup>st</sup> World Agroforestry Congress at Orlando, FL, USA
53. Aug-Sept 2004: One-week International Assessment of Agriculture Science and Technology for Development (IAASTD) workshop at UNEP Hqs, Nairobi, Kenya
54. Sept 2004: One-week Rockefeller Foundation Grantees workshop, Nairobi, Kenya
55. Oct 2004: One-week 3<sup>rd</sup> International Nitrogen Conference, Nanjing, China
56. Feb 2005: One -week National conference on revitalizing the Kenyan agricultural sector held at Safari Park Hotel, Nairobi, Kenya
57. Jun 2005: One –week Forum of Agricultural Research in Africa (FARA) General Assembly, Entebbe, Uganda
58. Nov 2005: One -week Conference on the Role of African Universities in the attainment of the Millennium Development Goals at Kenya School of Monetary Studies, Kenya
59. Dec 2005: One -week 7<sup>th</sup> African Crop Science Conference, Entebbe, Uganda
60. May 2006: One -week, Africa NUANCES Workshop on Exploring tradeoffs in natural resource management, Wageningen, Netherlands
61. Apr 2007: One -week, RUFORUM Biennial Meeting in Malawi.
62. Sept 2007: One -week TSBF-AfNet International Symposium on Innovations as Key to the Green Revolution in Africa: Exploring the Scientific Facts, Arusha, Tanzania
63. Jun 2008: Four-days stakeholders workshop for the Soil Health Program of the Alliance for Green Revolution in Africa (AGRA), Nairobi, Kenya.
64. Nov 2008: Three-days International Symposium on Higher Education in Agriculture and Environmental Science in Southern Sudan, Juba, Southern Sudan.
65. July 2009: One -week International Seminar on Greening the Minds – Impacts of Climate Change, Suzburg, Austria.
66. Aug 2009: One -week 2nd World Agroforestry Congress at UN/ICRAF, Nairobi, Kenya
67. Sept 2009; One -week African Crop Science Congress at Cape Town, South Africa
68. Nov 2009; Three-day workshop on nitrogen deposition, critical loads and biodiversity, Edinburgh, UK
69. June 2010; Three-day RUFORUM-CARP Proposal finalization workshop, Entebbe, Uganda
70. Aug 2010; One -week 19th World Congress of soil Science, Brisbane, Australia
71. July 2011; One-week Soil Organic Matter (SOM) Conference at Leuven, Belgium
72. Oct 2011; One-week ASA, CSSA, SSSA annual conference at San Antonio, TX, USA
73. Dec 2011; 3-day workshop on long-term trials on integrated soil fertility management, TSBF-ICRAF,

Nairobi, Kenya

74. Dec 2011; 3-day 1st ASARECA General Assembly at Entebbe, Uganda
75. Jan 2012; 1week workshop on data handling & analysis organized by AfNet-TSBF/AGRA at Jacaranda Hotel, Nairobi
76. Feb 2012; 1-week workshop on soil quality and nutrient management for sustainable food production in mulch-based cropping systems in sub-Saharan Africa; Coordinated Research Project (CRP) by IAEA, Vienna, Austria.
77. March 2012; 3-day stock taking synthesis workshop - ASARECA Plan 2, Kampala, Uganda.
78. June 2012; 1-week AGRA Grantees meeting on reviewing experiences in project implementation and strategies of going beyond demos, Windsor Golf Hotel, Nairobi, Kenya.
79. June 2012; 2-day ASARECA operational plan 2013-2017 development stakeholder working group meeting, Lake Victoria Serena Resort, Entebbe, Uganda.
80. June 2012; 1-week IUFRO-FORNESSA Regional Congress & ITTO/AFF Forest Policy Day, ICRAF, Nairobi, Kenya.
81. Sept. 2013; 1-week InnoVATE Symposium at Maison Virginia, USA, organized by Virginia Tech, PenState and Tusgee Universities and sponsored by USAID.
82. October 2013; 1-week 6th African Soil Science Society and 27th Soil Science Society of East Africa Conference at hotel Cathy, Nakuru, Kenya
83. Dec 2013; 2-Day Forum for Heads of Institutions on Measuring the Value of ICT in Higher Education organized by KENET at Sarova Beach Hotel, Mombasa, Kenya
84. Nov 2014: 1-week; ASA, CSSA, SSSA Annual Conference at Long Beach, CA, USA held on 2<sup>nd</sup> - 5<sup>th</sup> November 2014
85. Dec 2014; 2-Day Forum for Heads of Institutions Forum on ICT in Higher Education organized by KENET at Serena Beach Hotel, Mombasa, Kenya
86. February 2015, 3-Day Champions Workshop: Climate Impact Research Capacity Leadership Enhancement (CIRCLE), Nairobi, Kenya.
87. Nov 2015 1-Day British Council - Global Education Dialogue; Building nations through innovation: the role of universities; held at Radisson Blu Hotel in Addis Ababa, Ethiopia on 27<sup>th</sup> November 2015.
88. Dec 2015; 2-Day Forum for Heads of Institutions Forum on ICT in Higher Education organized by KENET at Serena Beach hotel, Mombasa, Kenya
89. July, 19<sup>th</sup> – 21<sup>st</sup> July, 2016: 3-day, 10th Decolonizing the Spirit Conference, Organized by University of Toronto and Embu University College at Embu Univesity College, Embu, Kenya.
90. August, 22<sup>nd</sup> – 26<sup>th</sup> 2016: 1-Week, 1st Biennial Conference on the State of Higher Education in Kenya, at Kenyatta University, Nairobi, Kenya
91. November, 2016: 4-day; ASA, CSSA, SSSA International Annual Conference at Phoenix, Arizona, USA, held on 6<sup>th</sup> - 9<sup>th</sup> November 2016.
92. March 28<sup>th</sup> - 1<sup>st</sup> April 2017: 5-day Kenya National Commission for UNESCO (KNATCOM) Stakeholders Forum, Mombasa, Kenya.
93. Dec 7<sup>th</sup> – 8<sup>th</sup>, 2017: KENET Heads of Institutions 2017 Forum, Whites Sand Hotel, Mombasa, Kenya.

94. Jan 29<sup>th</sup> – 2<sup>nd</sup> Feb 2018: 1week Accounting Officers Training Seminar, Kenya School of Government, Matuga, Mombasa.
95. Feb 12-13, 2018: Governance Seminar with Prof Mervyn King, SC. Safaripark hotel, Nairobi, Kenya.
96. May. 2019: 2-days “LivInFarmS workshop” at the University of Hohenheim, Stuttgart Germany from 13<sup>th</sup> to 14<sup>th</sup> May, 2019.
97. May. 2019: 4<sup>th</sup> World Congress on Agroforestry at the Le Corum Conference Centre Montpellier, France from 20<sup>th</sup> to 23<sup>rd</sup> May, 2019.
98. Nov. 2019: ASA, CSSA and SSSA International Annual Meeting at San Antonio, Texas, from 10<sup>th</sup> to 13<sup>th</sup> November, 2019.
99. Aug 2021: Multi-Sectorial Conference on STI; Theme “STI Governance, and mainstreaming: Infusion in National Development Agenda in Disrupted world” at Lake Naivasha Resort, Naivasha, Kenya.
100. June 2022: 3 days - Higher Education Partners (HEP) workshop in London, UK from 6<sup>th</sup> to 9<sup>th</sup> June 2022.
101. June 2022: 5 days - The Education Collaborative Annual Convening at Marriot Hotel/Ashesi, University, Ghana, from 13<sup>th</sup> to 17<sup>th</sup> June 2022.
102. July 2022: 5 days - Entrepreneurship Development in Higher Education 6<sup>th</sup> Annual Conference at Nelson Mandela University/Boardwalk hotel & Casino, Port Elizabeth, South Africa (18-22/7/22).
103. Aug 2022: Co-creation of curriculum training, policy development and linking education to industry. Kenya-Finland International conference on enhancing education in Kenya at Pride Inn Flamingo hotel, Mombasa, Kenya.
104. Sept 2022: Kenyan public universities 1<sup>st</sup> annual conference at White Sands hotel, Mombasa, Kenya
105. Sept 2022: 39<sup>th</sup> IASP World Conference on Science Parks & Other Areas Innovation at Seville, Spain.
106. Oct 2022: The Education Collaborative, East African Convening 2022, Kigali, Rwanda.
107. Oct 2022: 16<sup>th</sup> International Association of Universities (IAU) conference, Dublin, Ireland.
108. Dec 2022: Commercialization and Entrepreneurial Institutions Leaders’ Summit organized by KeNIA, Pride Inn Paradise Mombasa, Kenya.
109. Feb 2023: 3 days - 1<sup>st</sup> Biennial Kenya Universities Funding Conference 2023: Universities for a Sustainable future, Pride Inn Flamingo Beach Resort & SPA, Mombasa, Kenya
110. May 2023: 2<sup>nd</sup> Multi-Sectorial Conference on STI: Harnessing Science, Technology and Innovation (STI) for food security and public good in a transformational digitized economy. Safari park hotel, Nairobi, Kenya.
111. June 2023: 4 days - The Education Collaborative June Convening, Kempinski Gold Coast Hotel, Accra, Ghana.
112. June 2023: The Sub-Saharan Africa Universities Forum, Kempinski Gold Coast Hotel, Accra, Ghana
113. July 2023: 5 days - The Conference of Rectors, Vice Chancellors, and Presidents of African Universities (COREVIP), Windhoek, Namibia.
114. October 2023: 5 days - The International Annual meeting of the American Society of Agronomy, Crop Science Society of America, Soil Science Society of America in St. Missouri, USA
115. October 2023: 6 days - The Kenya-UK Universities Vice- Chancellors round table collaboration meeting in the United Kingdom

116. March 2024: Stakeholders' engagement workshop on review of the draft Legislation in the report of the Presidential Working Party on Education Reforms at the Kenya Institute of Special Education (KISE)
117. April 2024: 4 days - The 3<sup>rd</sup> National Wage Bill Conference from 15<sup>th</sup> to 17<sup>th</sup> April, 2024 at Bomas of Kenya, Nairobi.
118. May 2024: The close-out workshop for the Institution Support Program Phase 3 in Naivasha on 3<sup>rd</sup> May, 2024.
119. May 2024: 2 days - The 3<sup>rd</sup> Multisectoral Conference on Science, Technology and Innovation, at Safari Park Hotel, Nairobi from 7<sup>th</sup> to 8<sup>th</sup> May, 2024.
120. May 2024: Investing in a Shared Future Through Higher Education featuring a discussion with His Excellency Dr. William Samoei Ruto, President of the Republic of Kenya in the United States of America.
121. August 2024: 6 days – ‘‘The 2<sup>nd</sup> Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), Triennial Conference’’ scheduled to take place in Windhoek, Namibia from 12<sup>th</sup> to 16<sup>th</sup> August 2024.
122. August 2024: 5 days - The Inaugural Kenya National Research Festival at the Edge Convention Center, South C, Nairobi from 19<sup>th</sup> – 23<sup>rd</sup> August, 2024.
123. August 2024: 3 days - Commercialization and Entrepreneurial Institutions Leaders (CEIL) summit from 28<sup>th</sup> to 30<sup>th</sup> August, 2024 in Pride Inn Paradise Mombasa.
124. September 2024: 3 days - 41<sup>st</sup> International Association of Science Parks & Areas of Innovation (IASP) World Conference from 24<sup>th</sup> – 27<sup>th</sup> September, 2024 in Nairobi.
125. October 2024: 2 days - Education Collaborative East Africa Regional convening from 1<sup>st</sup> – 4<sup>th</sup> October, 2024 in Dar es Salaam Tanzania.
126. November 2024: 4 days – 7<sup>th</sup> Institute of Certified Secretaries (ICS) high level Summit from 5<sup>th</sup> – 8<sup>th</sup> November, 2024 at Pride Inn Paradise Beach Resort, Mombasa.
127. November 2024: 4 days – Kenya Innovation Week (KIW) 2024 Africa Edition from 25<sup>th</sup> – 29<sup>th</sup> November, 2024 at the Edge Convention Center, Nairobi.
128. February 2025: 2 days: – The 2nd Biennial Universities Funding Conference from 26<sup>th</sup> – 27<sup>th</sup> February, 2025 at Lake Naivasha Resort.
129. March 2025: 4 days – The African Universities Summit 2025 in Kigali Rwanda from 17<sup>th</sup> – 20<sup>th</sup> March, 2025 at Kigali Convention center.
130. April 2025: 4 days - Sensitisation workshop for Governing Bodies, Audit Committees, Senior Management and Heads of Internal Audit from National and County Government entities from 14<sup>th</sup> – 17<sup>th</sup> April, 2025 at Sawela Lodges Hotel, Naivasha
131. April 2025: 4 days – 29<sup>th</sup> Institute of Certified Secretaries (ICS) Annual conference from 22<sup>nd</sup> – 25<sup>th</sup> April, 2025 at PrideInn Paradise Beach Resort, Mombasa
132. May, 2024: 2 days – Enhancing Education Research in Africa (EERA) Co-Creation workshop from 27<sup>th</sup> – 28<sup>th</sup> May, 2025 at Limuru, Kenya
133. June 2025: 4 days – 4<sup>th</sup> Multisectoral Conference and Exhibition on Research Science, Technology & Innovation (RSTI) from 9<sup>th</sup> – 12<sup>th</sup> June, 2025 at Lake Naivasha Resort, Naivasha.
134. June, 2025: 5 days – The Education Collaborative June 2025 Convening from 16<sup>th</sup> – 20<sup>th</sup> June, 2025 in Kigali, Rwanda.

## **7.2. Conferences/Workshops Organized**

1. Nov 1998: three-day National Agroforestry Research Project workshop at Embu, Kenya.

2. Feb. 1997: one-week conference on Building Bridges with Traditional Knowledge at the University of Florida, Gainesville, FL, USA.
3. Dec 2000: 1-week 18<sup>th</sup> Soil Science Society of East Africa conference, Mombasa, Kenya.
4. May 2001: 1-week 8<sup>th</sup> AfNet workshop sponsored by TSBF at Arusha, Tanzania.
5. May 6-7 2002: Two-day stakeholders workshop on integrated soil fertility management strategies at Izaak Walton hotel, Embu, Kenya
6. April 2003: 1-week ANAFE conference on building agricultural and natural resources education in Africa, held in Kenyatta University, Nairobi, Kenya.
7. May 5-6 2003: Two-day stakeholders workshop on integrated soil fertility management strategies at Salkon hotel, Embu, Kenya
8. Dec 2003: One-week 21<sup>st</sup> Soil Science Society of East Africa conference, Eldoret, Kenya.
9. May 2004: 1-week AfNet TSBF-CIAT Symposium, Yaounde, Cameroon
10. Nov 2005: 1-week Regional Conference/Workshop on the Role of the Universities in the attainment of the millennium development goals, Nairobi, Kenya.
11. Nov 2007: One-week 24<sup>th</sup> Soil Science Society of East Africa conference, Embu, Kenya.
12. July, 19<sup>th</sup> – 21<sup>st</sup> July, 2016: 3-day, 10<sup>th</sup> Decolonizing the Spirit Conference, in partnership with the University of Toronto at Embu University College, Embu, Kenya.
13. June, 6<sup>th</sup> – 8<sup>th</sup>, 2018: 3-day, 1<sup>st</sup> Annual International Conference on Decolonizing Education at University of Embu, Embu, Kenya.
14. February 2024: Five days training Workshop for the Vice-Chancellors of Public Universities and Principals of Constituent University Colleges at Sarova Whitesands Hotel in Mombasa.
15. July 2024: Two days' Workshop for the Vice-Chancellors' of public Universities and Principals of Constituent University Colleges scheduled from 15<sup>th</sup> to 16<sup>th</sup> July, 2024 in Naivasha.
16. August 2024: 2 days "The Entrepreneurial Leaders Training Program (ELTP) – Vice-Chancellor Edition, 2024" from 28<sup>th</sup> to 30<sup>th</sup> August, 2024 in Pride Inn Paradise Mombasa.
17. June, 2025: 5 days – The Education Collaborative June 2025 Convening from 16<sup>th</sup> – 20<sup>th</sup> June, 2025 in Kigali, Rwanda.

### 7.3 Papers Presented in Conferences

1. Coulson CL, Mungai DN, Stichter CJ, Mwangi PW, and **Mugendi DN**. Studies of sustainable crop yield improvement through agroforestry interventions involving postgraduate training. Paper presented at the Commonwealth Science Review workshop at ICRAF Headquarters Nairobi, Kenya (Nov. 1989).
2. **Mugendi DN**. Effects of mulch application on maize yield in the semi-arid areas of Kenya. Paper presented at the KEFRI's 1st Annual conference/open day (Oct. 17-18, 1990) at KEFRI Headquarters, Muguga, Kenya.
3. **Mugendi DN**. Sustainable food production by use of agroforestry technology in the semi-arid areas. Paper presented in the "Environment 2000" Conference (Oct. 23-26, 1990) organized by KENGO & NES at the United Nations Accommodation Centre, Gigiri, Nairobi, Kenya.
4. **Mugendi DN**. The concepts and applicability of agroforestry. Paper presented at the JICA/KEFRI

- Social Forestry training seminar (Oct. 22 to Nov. 2, 1990) at KEFRI Headquarters, Muguga, Kenya.
5. **Mugendi DN**. Alley farming in the semi-arid tropics: DARP experience. Paper presented at the AFNETA training course (Sept. 2-11, 1991) at KEFRI Headquarters, Kenya.
  6. **Mugendi DN**. Effect of green manure and hedgerow intercropping on crop production: The DARP on-station experience. Paper presented at DARP workshop, Five Hills Hotel, Machakos, Kenya (Sept. 18-20 1991).
  7. **Mugendi DN**, O'Neill M, and Seward P. Evaluation of potential of leaves of multipurpose tree species as source of nitrogen for maize. Paper presented at the TSBF Workshop in Harare, Zimbabwe (July 1993).
  8. Mafongoya PL, **Mugendi DN**, and Pedereira C. Evaluation of *Leucaena leucocephala* as a source of N for maize. Paper presented at TSBF Workshop in Harare, Zimbabwe (July 1993).
  9. **Mugendi DN**. Decomposition patterns of *Leucaena leucocephala* and *Calliandra calothyrsus* prunings and maize roots in the subhumid Kenyan highlands. Paper presented at TSBF Workshop, Entebbe, Uganda (May 1995).
  10. **Mugendi DN**. Influence of chemical composition of *Leucaena leucocephala* and *Calliandra calothyrsus* prunings and maize roots on decomposition in the subhumid highlands of Kenya. Poster presented at decomposition symposium at Wye College, London, UK (Sept. 1995).
  11. **Mugendi DN** and Nair PKR. Predicting decomposition patterns of tree biomass in tropical highland microregions of Kenya. Paper presented at the ASA/SSSA/CSSA annual conference at Indianapolis, IN, USA (Nov. 1996).
  12. **Mugendi DN** and Nair PKR. Trees in support of maize production in subhumid highlands of Kenya: Maize yield and nitrogen recovery with calliandra and leucaena. Poster presented at the All Africa Crop Science Congress, Pretoria, SA (Jan. 1997).
  13. **Mugendi DN** and Popenoe H. The Maasai of East Africa: Land alienation, sedentaryization and changing socio-natural system. Paper presented at the Building Bridges with Traditional Knowledge conference held at the University of Florida, Gainesville, FL USA.
  14. **Mugendi DN**, Nair PKR, and Graetz DA. Nitrogen Recovery by Alley-Cropped Maize and Trees from <sup>15</sup>N Labeled Tree Biomass. Paper presented at the ASA/SSSA/CSSA Annual Conference at Anaheim, Ca, USA (Oct. 1997).
  15. **Mugendi DN**. Use of models in predicting crop performance. Paper presented at the Managing soil Fertility workshop held at Wida Hotel, Nairobi (March 1999).
  16. **Mugendi DN**, Kanyi MK, and O'Neill MK. Mineral-N movement and management in an Ultisol in the central highlands of Kenya. Paper presented at the 10<sup>th</sup> ISCO Conference at Purdue University, IN, USA (May 1999).
  17. Mucheru MW, **Mugendi DN**, Kung'u JB, Mugwe J and Micheni A. Improved food production by use of soil fertility amendment strategies in the central highlands of Kenya. Paper presented at the 8<sup>th</sup> African Network workshop in Arusha (May 2001)
  18. **Mugendi DN**, Mucheru MW, Micheni A, Mugwe JN, Kung'u JB and Otor S. Soil fertility strategies for improved food production in the central highlands of Kenya. Paper presented at the Africa Crop Science Conference, Lagos, Nigeria. (Nov 2001)
  19. Mucheru MW, **Mugendi DN**, Micheni A, Mugwe JN, Kung'u JB and Otor S. Enhancement of food productivity using locally available soil replenishment inputs in the central highlands of Kenya. Paper presented at the 19<sup>th</sup> SSSEA conference at Moshi, Tanzania 2<sup>nd</sup>- 7<sup>th</sup> Dec 2001
  20. Kibunja C, Mydausa TB and **Mugendi DN**. Nitrogen dynamics in response to long-term application of organic/ inorganic sources in maize-bean rotation. Paper presented at the 19<sup>th</sup> SSSEA Conference held in Moshi Tanzania, 2<sup>nd</sup>- 7<sup>th</sup> December 2001

21. Waswa BSN, **Mugendi DN**, Kung'u J, Vanlauwe B and Nandwa S. Soil organic matter status as influenced by organic resource quality in a nitisol of central highlands, Kenya. Paper presented at the 19<sup>th</sup> SSSEA Conference held in Moshi Tanzania, 2<sup>nd</sup>- 7<sup>th</sup> Dec 2001
22. Mugwe J, **Mugendi DN** and Mwangi M. Alley cropping of maize with calliandra and leucaena in the subhumid highlands of Kenya. Paper presented at the 19<sup>th</sup> Soil Science Society of East Africa Conference held in Moshi Tanzania, 2 - 7<sup>th</sup> Dec 2001
23. Kimetu JM, **Mugendi DN**, Palm CA, Mutuo P and Nandwa S. Soil nitrous oxide emissions as influenced by different management practices in western and central regions of Kenya. Paper presented at the 19<sup>th</sup> SSSEA Conference held in Moshi Tanzania, 2<sup>nd</sup>- 7<sup>th</sup> December 2001
24. Mwangi M, Smithson PC, Albrecht A, Swift MJ and **Mugendi DN**. Role of soil invertebrate microfauna in litter decomposition within a hedgerow agroecosystem in Embu Kenya. Paper presented at the 19<sup>th</sup> SSSEA Conference held in Moshi Tanzania, 2<sup>nd</sup>- 7<sup>th</sup> December 2001
25. Mucheru M, **Mugendi DN**, Kung'u JB, Mugwe J and Micheni A. Enhancement of soil productivity using local technologies in smallholder farms of central Kenya. Paper presented in 5<sup>th</sup> Regional Rockefeller Foundation Forum Meeting, Entebbe, Uganda (Aug 2002)
26. Mugwe J, **Mugendi DN**, Micheni A, Mucheru MW, Kung'u J, and Gitari J. Promotion of leguminous plants and organic inputs for improving soil productivity in farms of Central Kenya. Paper presented at the 8<sup>th</sup> biennial Sci. Conf. at KARI, Nbi, Kenya (Nov, 2002)
27. Mucheru M, **Mugendi DN**, Kung'u JB, Kangai AR, Mugwe J and Micheni A. Improved food production using local technologies in Meru South District, Kenya. Paper presented in the 20<sup>th</sup> SSSEA conference at Mbare, Uganda 1<sup>st</sup> – 6<sup>th</sup> December 2002
28. Kangai RA, Mucheru MW, **Mugendi DN**, Otor SCJ, Waswa BS. Pre-survey of the Adoption Potential of Soil Fertility Improvement Strategies in Chuka, Eastern Kenya. Paper presented in the 20<sup>th</sup> SSSEA conference at Mbare, Uganda 1<sup>st</sup> – 6<sup>th</sup> Dec 2002
29. Karunditu MW, **Mugendi DN**, Kung'u JB, and Vanlauwe B. Effects of soil organic matter status on inorganic nitrogen fertilizer use efficiency in Embu, Kabete and Maseno, Kenya. Paper presented in the 20<sup>th</sup> SSSEA conference at Mbare, Uganda 1<sup>st</sup> – 6<sup>th</sup> Dec 2002
30. Mutegi JK, **Mugendi DN**, Kung'u JB, Otor S and Mugwe J. Farmers' evaluation of contour hedges for soil conservation and nutrient cycling: A case study of central highlands of Kenya. Paper presented in the 20<sup>th</sup> SSSEA conference at Mbare, Uganda 1<sup>st</sup> – 6<sup>th</sup> December 2002
31. Mucheru-Muna M, **Mugendi DN**, Kangai AR, Kung'u JB, Mugwe J and Otor S. Farmer participation in enhancing food productivity through agroforestry. Paper presented in the ANAFE symposium on building agricultural and natural resources education in Africa: quality and relevance of tertiary education, KU, Nbi, Kenya (April 14-16<sup>th</sup>, 2003).
32. Mucheru-Muna M, **Mugendi DN**, Kangai AR, Kung'u JB, and Mugwe J. Soil Productivity improvement technologies for increased food production in Meru South District, Kenya. Paper presented at the Africa Crop Science Conference, Nairobi, Kenya. (October 2003)
33. **Mugendi DN**, Mucheru-Muna M, Kangai AR, Kung'u JB, and Mugwe J. Enhancement of food productivity using leguminous shrubs in the Eastern highlands of Kenya Paper presented at the Africa Crop Science Conference, Nairobi, Kenya. (October 2003)
34. Mucheru-Muna M, **Mugendi DN**, Kangai AR, Kung'u JB, and Mugwe J. Farmer Participation in improving food productivity using locally available inputs in Meru South District, Kenya. Paper presented in the 21<sup>st</sup> SSSEA conference at Eldoret, Kenya, Dec 2003
35. Karunditu M, **Mugendi DN**, Kung'u JB, & Vanlauwe B. 2003 Nitrogen uptake and use efficiency as affected by soil organic matter status in Embu, Kabete and Maseno, Kenya. Paper presented at the Africa Crop Science Conference, Nairobi, Kenya. (October 2003)

36. Mugwe J, **Mugendi D**, Mucheru M & Kung'u J 2003. Adoption Potential of Soil Replenishment Resources: Feasibility and Acceptability of Leguminous Plants and other Organic Resources for Soil Fertility Improvement in Meru South District, Kenya. Paper presented at the Africa Crop Science Conference, Nairobi, Kenya. (October 2003)
37. Waswa B, **Mugendi D**, Vanlauwe B, Nandwa S & Kung'u J 2003. Soil properties as Influenced by Different Organic Residue Amendments in Selected Experiments in Kenya. Paper presented at the Africa Crop Science Conference, Nairobi, Kenya. (October 2003)
38. Kangai A, **Mugendi DN**, Mucheru MW, Otor SCJ, Waswa B & Kung'u J. 2003 Trends in Adoption of Soil Fertility Improvement Strategies in Chuka, Eastern Kenya. Paper presented at the Africa Crop Science Conference, Nairobi, Kenya. (October 2003)
39. **Mugendi DN**, Mucheru-Muna, Kung'u JB, Mugwe J, and Bationo A. Improving food production using leguminous shrubs in the central highlands of Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
40. Mucheru-Muna M, **Mugendi DN**, Kung'u JB, and Mugwe J. Economic evaluation of local inputs in Mwru South District, Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
41. Mutegi JK, **Mugendi DN**, Kung'u JB and Mugwe J. The role of contour hedge technologies in combating soil nutrient losses on arable steepplands of central highlands of Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
42. Waswa BN, **Mugendi DN**, Kung'u J, Vanlauwe B and Nandwa S. Changes in soil organic matter as influenced by organic residue regimes in selected sites in Kenya. source quality in a nitisol of central highlands, Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
43. Kimetu JM, **Mugendi DN**, Bationo A, Palm CA, Mutuo P, Kihara J, Nandwa S, and Giller K. Tracing the fate of nitrogen in a ferralsol and humic nitisol under different management practices in Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
44. Karunditu MW, **Mugendi DN**, Kung'u JB, and Vanlauwe B. Inorganic nitrogen in the soil profile and fertilizer nitrogen recovery in both plant and soil as affected by soil organic matter status in two sites in Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
45. Baaru MW, **Mugendi DN**, Waceke W, Bationo A, and Louis V. Soil microbial biomass carbon and nitrogen as influenced by organic and inorganic fertilization in Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
46. Mugwe J, **Mugendi DN**, and Odee D. Evaluation of the potential of using nitrogen fixing legumes in smallholder farms of Meru South district, Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
47. Mairura FS, **Mugendi DN**, Mwanje JI, Ramisch JJ and Mbugua PK. Scientific assessment of farmers' perceptions of soil quality indicators within smallholder farmers in the central highlands of Kenya. Paper presented at the AfNet TSBF-CIAT Symposium, Yaounde, Cameroon (May 2004)
48. Cadisch G, Poulton C, **Mugendi DN**, and Jama B. Replenishing soil fertility in Africa: Remaining Challenges. Paper presented at the 1<sup>st</sup> World Agroforestry Congress, Orlando, FL, USA (June - July 2004)
49. Mugwe J, **Mugendi DN**, Mucheru-Muna M, and Kung'u J. Adoption of leguminous trees and other organic resources for soil fertility improvement in Meru South district, Kenya. Poster presented at the 1<sup>st</sup> World Agroforestry Congress, Orlando, FL, USA (June-July 2004).
50. **Mugendi DN**, Mucheru-Muna, Kung'u JB, Mugwe J, and Bationo A. Improved food security through Agroforestry technologies in the central highlands of Kenya. Paper presented at the 1<sup>st</sup> World



Agroforestry Congress, Orlando, FL, USA (June-July 2004).

51. **Mugendi DN**, Mucheru-Muna M, Kangai R, Kung'u JB, Mugwe J, and S Otor. Enhanced soil productivity by use of low input technologies in the smallholder farms of the Kenyan central highlands. Paper presented at the Rockefeller Foundation Grantees Workshop held at Safari Park Hotel, Nairobi, Kenya (20-23 Sept 2004)
52. **Mugendi DN**, Mucheru-Muna M, Kung'u JB, Mugwe J, and Bationo A. Improvement of food production using different sources of nitrogen in the central Kenyan highlands. Paper presented at the 3<sup>rd</sup> International Nitrogen Conference at Nanjing, China (12-16 Oct 2004)
53. **Mugendi DN**, Mugwe J, Mucheru-Muna M, and Kung'u J. Adoption of Organic Resources for Soil Fertility Improvement in Meru South District, Kenya. Paper presented at the Africa Crop Science Conference, Kampala, Uganda. (October 2005).
54. Mugwe J, **Mugendi D**, Kungu J and Oeba V 2006. Adoption of Organic and Inorganic Resources for Soil Fertility replenishment by Smallholder Farmers in the Central Highlands of Kenya. Paper presented at the 3<sup>rd</sup> KEFRI Sci. Conf, KEFRI Hqs, Muguga. (6-9, Nov 2006)
55. Mugwe J, **Mugendi D**, Kungu J and Oeba V. Household and Farm Characteristics Influencing Adoption of Soil Fertility Management Technologies in Meru South District, Kenya. Paper presented during the 10<sup>th</sup> KARI Biennial Scientific conference at KARI Hqs, Nairobi. (13<sup>th</sup> to 17<sup>th</sup> November 2006)
56. Mugwe J, **Mugendi D**, and Kungu J 2006. Soil changes following application of legumes, tithonia and cattle manure in the central highlands of Kenya. Paper presented at the 23<sup>rd</sup> Soil Science Society of East Africa at Masaka, Uganda. (19<sup>th</sup> to 25<sup>th</sup> November 2006)
57. Mutegi E, **Mugendi DN**, Kung'u JB and Mucheru-Muna M. Integration of organic and inorganic soil fertility replenishment technologies in response to food insecurity in Meru South. Paper presented during the RUFORUM Biennial Meeting in Malawi (April 2007).
58. Gathoni E, Karega R, **Mugendi D** and Mugwe J. Gender differentials in adoption of soil nutrient replenishment technologies in Meru South District, Kenya. Paper presented during the RUFORUM Biennial Meeting in Malawi (April 2007).
59. **Mugendi DN** and Mucheru-Muna M. Scaling out soil nutrient management technologies for improved crop production in the smallholder farms of Meru South District, Kenya. Paper presented during the RUFORUM Biennial Meeting in Malawi (April 2007).
60. **Mugendi DN** and Koala S. Role of networking in increasing agricultural productivity: experience of the African Network for Tropical Soil Biology and Fertility (AfNet-TSBF). Paper presented during the Side Event on Networking in the African Crop Science Conference in Cape Town, South Africa (Sept 28 to October 1, 2009).
61. **Mugendi D**, Mucheru-Muna M, Mugwe J, Pypers P, Vanlauwe B and Merckx R. Nitrogen fertilizer equivalency of selected organic materials in the central highlands of Kenya. Poster presented in a workshop on nitrogen deposition, critical loads and biodiversity, Edinburgh, UK (16<sup>th</sup> to 18<sup>th</sup> Nov, 2009).
62. **Mugendi D**, Mucheru-Muna M, Mugwe J, Kungu J, Pypers P, Vanlauwe B and Merckx R. Maize productivity as influenced by organic inputs and mineral fertilizer in a Nitisol soil in Meru South District. Poster presented in the 19<sup>th</sup> World Congress of Soil Science, Brisbane, Australia (1<sup>st</sup> to 6<sup>th</sup> Aug, 2010).
63. Ngetich, K.F., Mugwe, J.N., Mucheru-Muna, M., Shisanya, C.A., Diels, J. and **Mugendi, D.N.** (2010). Evaluation of strategies that optimizes water productivity in maize; simulation and testing of crop field practices using AquaCrop model in the Central Highlands of Kenya. Conference paper presented during the First East African Regional Scientific Conference of Pure and Applied Science. 10-13th August 2010, Kenyatta University, Kenya.
64. Ngetich, K. F., Shisanya, C. A., Mugwe, J., Mucheru-Muna, M., **Mugendi, D. N.** and Diels, (2011). Tillage and surface management effects on soil water content and maize productivity in the Central Highlands of Kenya. Conference paper presented during Lake and Catchment Research Symposium

(LARS) 2011. 14-18 March 2011, Kenyatta University, Kenya.

65. **Mugendi, D.N.**, Ngetich, K.F., Mugwe, J.N., Mucheru-Muna, M., Shisanya, C. and Diels, J. (2011). Effects of subsoiling and soil surface management on maize productivity in the central highlands of Kenya. Conference paper to be presented during the ASA CSSA SSSA International Annual Meetings on 16-19th Oct 2011, San Antonio, TX USA.
66. Ngetich, K.F., Mugwe, J.N., Mucheru-Muna, M., Shisanya, C.A., Diels, J. and **Mugendi, D.N.** (2011). Effects of planting dates on maize yield under rainfed conditions in the Central Highlands of Kenya. Conference paper to be presented in CIALCA Conference on 24-27th Oct 2011, Kigali Rwanda.
67. **Mugendi, D.**, Mucheru-Muna, M., Ngetich, K. F., Mugwe, J., Vanlauwe, B., Merckx. R. and Diels, J. (2011). Organic inputs and mineral fertilizer effects on soil water content and maize productivity in Mbeere District, Kenya. Conference paper presented during the International Symposium on Soil Organic Matter 11-14 July 2011, Leuven, Belgium.
68. **Mugendi DN**, Ngetich KF, Mugwe JN, Mucheru-Muna M, Shisanya CA, and Diels J (2011). Subsoiling and soil surface management effects on maize productivity in the central highlands of Kenya. Paper presented at the ASA, CSSA, SSSA Annual conference at San Antonio Texas, USA (16<sup>th</sup> to 19<sup>th</sup> October 2011).
69. Kimaru-Muchai SW, Mucheru-Muna MW, Mugwe JN, **Mugendi DN**, Mairura FS. (2011). Communication channels used in dissemination of soil fertility management (SFM) practices in the central highlands of Kenya. Poster presented in the 1<sup>st</sup> ASARECA General Assembly, Entebbe, Uganda (14<sup>th</sup> to 16<sup>th</sup> Dec 2011).
70. **Mugendi DN**, Mucheru-Muna MW, Mugwe JN, Ngetich KF, Vanlauwe, B., Merckx. R. (2012). Unraveling beneficial impact of nitrogen, carbon and water dynamics in mulch-based systems on crop productivity in heterogeneous biophysical environment of the Central Kenyan highlands. Proposal presented at the Coordinated Research Project (CRP) workshop organized by IAEA, Vienna, Austria (30/1-3/2/2012)
71. Ngetich K.F., Mugwe J.N., Mucheru-Muna M., Shisanya C.A., Diels J. and **Mugendi D.N.** (2012). Effects of soil and water conservation techniques on run-off, sediment yield and maize productivity. Presented during the ISFM 2012 Conference entitled; Integrated Soil Fertility Management in Africa: From Microbes to Market. Held in Safari Park Hotel, 22 - 26 October (2012), Nairobi, Kenya.
72. Ngetich K.F., Mugwe J.N., Mucheru-Muna M., Shisanya C.A., Diels J. and **Mugendi D.N.** (2012). Determination of seasonal length and rainfall onset and cessation dates in parts of Central Highlands of Kenya. Presented during the First International Conference on "Natural Resources, Conflicts and Peace" on 25th - 28th July 2012, Karatina, Kenya.
73. Kiboi M.N, Muna M.W., Ngetich F. K, Mugwe J.N. **Mugendi D.N.** and Wambugu. S. (2013). Effects of Selected Soil Water Conservation Strategies on Maize Yield through Farmer Managed Trials in the Central Highlands of Kenya. Paper presented during the Soil Science Society of East Africa Conference held on 21st to 25th October 2013 at Cathay Hotel in Nakuru, Kenya.
74. Okeyo, A. I., Mucheru-Muna, M., M., Mugwe, J., Ngetich, K. F., **Mugendi, D. N.**, Diels, J. and Shisanya, C. A (2013). Enhancing Adaptation to Climate Variability in Rainfed Farming Systems; The role of soil and water conservation technologies in the central highlands of Kenya. Paper presented during the Soil Science Society of East Africa Conference held on 21st to 25th October 2013 at Cathay Hotel in Nakuru, Kenya
75. Mugi E.W., Ngetich F.K., Muna M.W., Mugwe J.N., **Mugendi D.N.** And Mairura F. (2013). Integrating Indigenous and Conventional Knowledge-Based Seasonal Climate Forecasts for Farmers Enhanced Adaptation to Climate Variability in Tharaka-Nithi and Kitui Counties. Paper presented during the Soil Science Society of East Africa Conference held on 21st to 25th October 2013 at Cathay Hotel in Nakuru, Kenya.

76. Mucheru-Muna MW, Ngetich F.K., **Mugendi D.N.**, Mugwe JN, Vanlauwe B, Jan Diels and Merckx R. (2013). Soil chemical properties as influenced by organic inputs and mineral fertilizer in Mbeere District, Kenya. Paper presented during the Soil Science Society of East Africa Conference held on 21st to 25th October 2013 at Cathay Hotel in Nakuru, Kenya.
77. Oscar Kisaka, Mucheru-Muna, M., Ngetich, F.K., Mugwe, J., **Mugendi, D.N.**, and Mairura, F. (2013). Characterization of Seasonal Rainfall Variability and Drought Probability of the Semi Arid Areas of Mbeere Region in Embu County, Kenya. Paper presented during the Soil Science Society of East Africa Conference held on 21st to 25th October 2013 at Cathay Hotel in Nakuru, Kenya.
78. **Daniel Njiru Mugendi**, Felix Kipchirchir Ngetich, Jayne Njeri Mugwe, Monica Mucheru-Muna, Chris A Shisanya and Jan Diels, (2014). Sowing Date and Timing of Nitrogen Fertilizer Application Effects on Soil Water Content and Maize Yield in the Central Highlands of Kenya. Paper presented during International Annual Meetings of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America held on 2<sup>nd</sup> to 5<sup>th</sup> November, 2014.
79. Kiboi M.N, Ngetich F. K, Muna M.W., Diels J., Mugwe J.N. and **Mugendi D.N.** (2014). *Effects of Selected Soil Water Conservation Strategies on Maize Yield Stability through Farmer Managed Trials in the Central Highlands of Kenya*. Poster presented during International Conference on “Building a New Generation of Agricultural Scientists” held on 1st to 5th December 2014 at Kenyatta University in Nairobi, Kenya
80. Kiboi, M.N, Ngetich, K.F., Mucheru-Muna, M., Diels, J., Mugwe, J., **Mugendi, D. N.**, (2016). Effects of selected soil water conservation strategies on maize yield and soil organic matter under farmer managed in the Central Highlands of Kenya. Paper presented during the ASA, CSSA, SSSA International Annual Conference at Phoenix, Arizona, USA, held on 6<sup>th</sup> - 9<sup>th</sup> November 2016.
81. Okoth, N.O, Ngetich, F.K., **Mugendi, D.N**, Muriuki, A. and Adamtey, N. (2017). *Characterization of rainfall pattern in the Central Highlands of Kenya using satellite estimate data*. The fourth Eastern African Multidisciplinary Applied Research Conference (EARMAC4) in United States International University (USIU)-Africa in Kenya (14<sup>th</sup> to 16<sup>th</sup> Nov, 2017)
82. Kiboi M.N., Ngetich F.K., **Mugendi D.N.**, Muriuki A., Adamtey N. And Fliessbach A. (2017). *Potential of different soil fertility management techniques to enhance agricultural productivity in Tharaka-Nithi and Murang'a Counties, Kenya*. Poster presented during Tropentag 2017 held on 20<sup>th</sup> to 22<sup>nd</sup> September 2017 at Bonn University, Germany.
83. Kiboi M.N., Ngetich F.K., **Mugendi D.N.**, Muriuki A., Adamtey N. and Fliessbach A. (2017). *Maize crop performance and water use efficiency as affected by soil fertility management techniques in the sub-humid regions of Kenya*. Poster presented during 3<sup>rd</sup> International Conference on Global Food Security held on 3<sup>rd</sup> to 6<sup>th</sup> December 2017, at Cape Town, South Africa.
84. Kiboi M.N, Ngetich, K.F., **Mugendi, D.N.**, Muriuki, A., Adamtey, N. and Fliessbach, A. (2018). *Soil biological properties response to selected soil fertility management strategies in the sub-humid region of Central Kenya*. Paper presented during 12<sup>th</sup> Egerton University International Conference held on 28<sup>th</sup> to 30<sup>th</sup> March 2018 at Egerton University in Nakuru, Kenya
85. Okoth, N.O, Ngetich, F.K., **Mugendi, D.N**, Muriuki, A. and Adamtey, N. (2018). Enhancing soil water productivity using selected soil management practices in the central highlands of Kenya. The 12<sup>th</sup> International Conference at Egerton University, Kenya (28<sup>th</sup> to 30<sup>th</sup>, March, 2018)
86. Otieno, E.O., Ngetich, K.F., Kiboi, N. M., Muriuki, A., Adamtey, N., **Mugendi, D. N.** (2018). *Characterizing decomposability of organic inputs under farmer-managed conditions in the Central Highlands of Kenya*. 12<sup>th</sup> Egerton University International Conference, Theme: ‘Knowledge Solutions for the Society, the Economy and the Environment’ March 2018.
87. Okoth, N.O, Ngetich, F.K., **Mugendi, D.N**, Muriuki, A. and Adamtey, N. (2018). Enhancing soil water content using selected soil management practices in the central highlands of Kenya. The

Second Annual International Conference at the University of Kabianga, Kenya (9<sup>th</sup> to 11<sup>th</sup> May, 2018).

88. Otieno, E.O., Ngetich, K.F., Kiboi, N. M., Muriuki, A., Adamtey, N., **Mugendi, D. N.** (2018). *Integrated soil nutrient management technologies for improved maize (Zea maysL.) productivity in Murang'a and Tharaka-Nithi counties, Kenya*. Second Annual University of Kabianga International Conference. Theme: Ethical Sustainable Development for the Betterment of Humanity
89. Otieno, E.O., Ngetich, K.F., Kiboi, N. M., Muriuki, A., Adamtey, N., **Mugendi, D. N.** (2019). *Short-Term Assessment of Potential of Integrated Soil Fertility Management Technologies to Improve Soil Fertility in Tharaka-Nithi and Murang'a Counties, Kenya*. The 4<sup>th</sup> Dedan Kimathi University of Technology International Conference on Science, Technology, Innovation and Entrepreneurship. Theme: 'Leveraging Science, Technology, Innovation and Entrepreneurship for Sustainable Development.
90. **Mugendi, D.N.**, Ngetich, K.F., Monicah Mucheru-Muna, Mugwe J.N, and Bationo, A. (2019). *Long term effects of hedgerow intercropping on maize yields and soil fertility in the central highlands of Kenya*. Paper presented during the 4<sup>th</sup> World Congress on Agroforestry at Le Corum Conference Centre, Montpellier, France, held on 20<sup>th</sup> to 23<sup>rd</sup> May, 2019.
91. Monicah Mucheru-Muna, Ngetich, K.F., **Mugendi, D.N.**, and Mugwe J.N (2019). *Organic inputs and mineral fertilizer effects on soil chemical properties, soil water content and maize productivity in Mbeere District, Kenya*. Paper presented during the 2019 ASA, CSSA and SSSA International meeting, San Antonio, Texas, held on 10<sup>th</sup> to 13<sup>rd</sup> November, 2019.

#### 7.4 AWARDS/ ACHIEVEMENTS

1. Recognized and ranked position 12 in Kenya, 628 in Africa, and 90235 in the world in the 2022 Alper-Doger Scientific Index, also known as "AD Scientific Index ranking".
2. Best poster presented at the All Africa Crop Science Congress in Pretoria, South Africa in January 1997.
3. Poster awarded 1st place in the "Environmental and Biological Sciences Poster Section" at the University of Florida Graduate Student Forum in March 1997 – Celebrating the diversity of graduate students.
4. Finest overall poster presented at the University of Florida Graduate Student Forum in March 1997 - Celebrating the diversity of graduate students.
5. Paper awarded 3rd place in the "Biological Sciences Paper Session" – UF Graduate Student Forum in March 1997 - Celebrating the diversity of graduate students.
6. Ph.D. Dissertation awarded 'The 1997 Outstanding Dissertation Award' of the School of Forest Resources and Conservation, University of Florida, USA.
7. An African Career Award (Rockefeller Foundation) Post-Doctoral Fellowship
8. Recognized and ranked position one in the University of Embu, twenty-one (21) in Kenya and 765 in Africa, and 87,379 in the world according to the world AD Scientific Index Ranking 2023.
9. Recognized as the Elder of the Burning Spear (EBS) by His Excellency, The President of Kenya, Hon. Dr. William Samoei Ruto, on December, 2023.

#### 8.0 CONSULTANCY ENGAGEMENTS

**Mar.-April, 2002:** Evaluated the JICA Social Forestry Extension Model Development Project for Semi-arid areas in Kenya (SOFEM), Kitui

**August, 2005:** Contracted by RELMA in ICRAF to document the most profitable

agroforestry innovations/systems in Kenya

- June-Sept. 2006:** Explored the potential for sustainable biomass fuel production for the KTDA-owned tea factories in Kenya
- Mar.-Jun. 2006:** Appointed by MENR as a Technical Reviewer for Economic Development: Natural Resources International / Investments Components for the Lake Victoria Basin
- Sept.-Dec. 2006:** Appointed as a National Technical Reviewer for Consultancy service on other studies for Lake Victoria Basin
- 2007:** Contracted by ANAFE, ICRAF to review a book on Agroforestry Systems and Education in Africa
- July-Dec. 2013:** Contracted by the Alliance for a Green Revolution in Africa (AGRA) to provide quality control support at delivery universities in a timely manner in the Training Unit of the Soil Health Program

## **9.0 MEMBERSHIP TO PROFESSIONAL ASSOCIATIONS**

1. Member of the African Network (AfNet) of Tropical Soil Biology and Fertility Institute
2. Member of Soil Science Society of America
3. Member of Agronomy Society of America
4. Member of Crop Science Society of America
5. Member of Soil Science Society of Africa
6. Member of the Soil Science Society of East Africa
7. Member of the African Crop Science Society
8. Member of Nature Kenya
9. Member of the American Society of Agronomy, American Soil Science Society and American Crop Science Society
10. Member of the Soil and Water Conservation Society

## **10.0 OTHER RESPONSIBILITIES**

- 1999-2002:** Secretary, Justice Peace & Reconciliation, Kahawa Sukari PCEA Church
- 2000-2003:** Chairman, Christian Education Committee, Kahawa Sukari PCEA Church
- 2002-2004:** Secretary of the Kahawa Sukari PCEA Church
- 2003-Date:** Elder, Kahawa Sukari PCEA Church
- 2007-2010:** Session Clerk (Secretary) to the PCEA Kahawa Sukari Parish
- Mar. 2015:** Organised and participated in the Embu Town Clean-up by Embu University and Embu County Government.
- Apr. 2018:** Organised the Embu Town Clean-up by the University of Embu in collaboration with the Embu County Government.

## 11.0. REFEREES

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