

DR. JANE NJUGUNA CURRICULUM VITAE



RESEARCHER ID:

SCOPUS ID:

ORCID: 0000 0003 4165 0125

POSITION: Senior Deputy Director, Research and Development

1. PERSONAL INFORMATION

1.1	NAME	JANE NJUGUNA (PhD)
1.2	ADDRESS	(Office) Kenya Forestry Research Institute (KEFRI) P. O. Box 20412, Nairobi TEL: 020 2010651/2, 0722157414, 0724259781/2 (Home) P. O. Box 25630 -00100, Nairobi
1.3	PHONE:	+254722 812 341/ +254 788 635 735
1.4	EMAIL ADDRESS	jnjuguna@kefri.org , jwknjuguna@yhoo.com
1.5	NATIONALITY	Kenyan
1.6	GENDER	Female

2. QUALIFICATIONS

2.1. Academic Qualifications

Year	Qualification	Institution
2011:	Doctor of philosophy in Forest Mycology and Pathology	Swedish University of Agricultural Sciences (SLU), Sweden
1995:	Master of Forest Science	University of Melbourne, Australia
1987:	Bachelor of Science (Botany and Zoology)	University of Nairobi

2.2. Key Competencies

Biodiversity, Sustainability, Environmental Impact Assessment, Climate Change, Natural Resources Management, Plant Ecology, Forest Management, Climate Variability, Forest Conservation, Forestry, Agroforestry, Tree Plantation, Forest Biology, Forest Pathology, Gender in research

2.3. Other Courses

Period	Course	Institution
2009:	Dispersal of Plant Pathogens: Nordic University Network Course	Alvkarleo Sweden.
2009	Forest Pathology in the Genomic Era: PhD Certificate Course	The Swedish University of Agricultural Sciences Ultuna Campus, Sweden
2008	Agro-Biotechnology of Root-Microbe Systems in Forestry (AB-RMS): Nordic University Network Course	University Denmark
2007	Dynamics in Tropical land use: Nordic University Network Course	The Swedish University of Agricultural Sciences, Umea Campus Sweden
2007	Forest Biotechnology and Molecular Phylogenetics	Forestry and Agriculture Biotechnology Institute (FABI), University of Pretoria
2006	Diagnostic Methods in Forest and Plant Pathology: Nordic University Network Course	University of Life Sciences, Norway
2006	Molecular Evolution: PhD Course	Swedish University of Agricultural Sciences, Ultuna Campus
2004	Forest Microbiology: PhD Course	The Swedish University of Agricultural Sciences, Ultuna Campus Sweden.
1999	Forest Policy and Governance: International Forestry Resources and Institutions (IFRI) Research Programme Training Course.	Indiana University USA

3. EMPLOYMENT HISTORY

Employed at the Kenya Forestry Research Institute as a Forest Pathologist since 1987 and have risen through the ranks as shown below;

- **Feb. 2014- Present:** Chief Research Scientist:
- **2009 to Jan. 2014:** Principal Research Scientist:
- **2002 to 2009:** Senior Research Scientist:
- **1994- 2002:** Research Scientist I
- **1991 – 1994:** Research Scientist II

- **1987 – 1991:** Assistant Research Scientist

4. ADMINISTRATIVE RESPONSIBILITY

- 1. March 5 2018-March 31 2019: Acting Director**, Kenya Forestry Research Institute
- 2. September 2017-Current:** Senior Deputy Director, Research and Development, Kenya Forestry Research Institute
- 3. 2014-Sept. 2017:** Deputy Director, Forest Productivity and Improvement (**Three Years Eight Months**)
- 4. 2009-2014:** Deputy Centre Director, Muguga Regional Research Centre, now CHERP (**Six years**)
- 5. 2002-2009:** Head of Pathology Section of KEFRI (**Seven Years**)
- 6. 1997-2007:** concurrent with above; Assistant Project and Database Manager, International Forestry Research Institute (IFRI) Project (**Ten Years**). During this period I and my project team members helped establish the following research Centers within East Africa for the IFRI Project:
 - Kenya Collaborative Research Centre in 1997
 - Tanzania Collaborative Research Centre (Sokoine University) in 1998
 - Ethiopia Collaborative Research Centre located in Environment and Coffee Forest Forum, Addis Ababa in 2004.

5. PROFESSIONAL EXPERIENCE

1. Resource mobilization for Research and Development in Kenya
2. Management of financial and human resources in forest research and development and other activities:
3. Planning, co-ordination, implementation, evaluation and monitoring of forestry research projects in forestry, environment and allied natural resources
4. Research planning and design, field surveys, data collection, data entry, analysis, storage, retrieval and dissemination of research data and findings.
5. Forest health diagnostic methods; sample collection, culturing, identification and preservation of plant pathogens and pests from seeds, seedlings and mature trees and their control measures.
6. Developing integrated pest and disease management technologies for sustainable forest production systems to improve food security create wealth and increase resilience to climate change.
7. Gender integration in research project planning, design and implementation
8. Analysis of biophysical and social data using relational databases.
9. Writing and reporting scientific and environmental assessment and audit reports and others.
10. Lead Expert (Licence number 3084) in Environment Impact Assessment and Audits.
11. Facilitator and resource person for many workshops, conferences and events

6. PUBLICATIONS

6.1. Journal papers

1. **Jane W. Njuguna**, Stephen M. Kiama, James O. Maua, Magrate M. Kaigongi, Michael M. Muganda, Stanley Nadir, Charles Koech, John N. Kigomo, Joshua Cheboiwo (2021). A global review of the use of aerial seeding technology in restoring degraded forests and landscapes: Case study of Kenya. *Journal of Landscape and Ecological Engineering* (Article in Press)
2. Susan Karani, **Jane Njuguna**, Alice Muchugi, Steven Runo and Joseph Machua (2021). Molecular identification of fungi causing canker and dieback diseases on *Vangueria infausta* (Burch) *subsp. rotundata* (Robyns) and *Berchemia discolor* (Klotzsch) Hemsl in lower Eastern Kenya. *African Journal of Biotechnology* (Article in Press)
3. Okeyo, M.M., G.O. Obwoyere, D.L. Makanji, **J.W. Njuguna**, J. Atieno (2020). Promotion of *Terminalia brownii* in Reforestation by Development of Appropriate Dormancy Breaking and Germination Methods in Drylands; Kenya. In Press, Journal Pre-proof, Available online 11 June 2020
4. Sheillah Cherotich, Japhet Muthamia, **Jane Njuguna**, Alice Muchugi, Daniel Otaye, Ignazio Graziosi, Zakayo Kinyanjui (2020). Fungal Microflora Biodiversity of Healthy and Diseased *Adansonia digitata* and *Sclerocarya birrea* Trees in Kenya. *Topola/Poplar* 205, 5-13
5. Cherotich Sheillah, **Njuguna Jane**, Muchugi Alice, Muthamia Japhet, Otaye Daniel, Graziosi Ignazio and Kinyanjui Zakayo (2019). Botryosphaeriaceae associated with baobab (*Adansonia digitata* L.) and marula (*Sclerocarya birrea* A. Rich.) in agroforestry systems in Kenya. *African Journal of Plant Science*, Vol. 14(10), pp. 411-419
6. Okeyo, Michael M., Gilbert O. Obwoyere, Dickson L. Makanji, **Jane W. Njuguna**, and Jackline A. Omond (2019). Fungal diseases attacking floral phenology of *Terminalia brownii* in Drylands, Kenya. *Topola* 203 5-11.
7. Okeyo, M. M., Obwoyere, G. O., Makanji, D. L., **Njuguna, J. W.**, & Gathogo, M. W. (2019). Insects Associated with *Terminalia brownii* Growing in Kitui, Baringo and Homa Bay Counties, Kenya: Implications on Tree Species Domestication. *Topola*, (204), 5-15.
8. Muthama, Angela M., **Jane W. Njuguna**, and Francis K. Sang (2017). "Botryosphaeriaceae Fungal Species as Potential Pathogens of Meliaceae in the Arid and Semi-Arid Lands of Kenya. *Indian Forester* 143.9 (2017): 890-893.
9. Machua J., L. Jimu, **J. Njuguna**, M. J. Wingfield, E. Mwenje and J. Roux (2016). First report of *Teratosphaeria gauchensis* causing stem canker of Eucalyptus in Kenya. *For. Path.* doi: 10.1111/efp.12264.
10. **Njuguna J. W.** (2011). Stem Canker and dieback Disease on *Grevillea robusta* Cunn ex R. Br.: Distribution, Causes, and Implications in Agroforestry Systems in Kenya, PhD Thesis, Swedish University of Agricultural Sciences (SLU), Sweden.
11. **Njuguna J. W.**, Barklund, P., Ihrmark, K., and Stenlid, J. (2011). A canker and dieback disease is threatening the cultivation of *Grevillea robusta* on small-scale farms in Kenya. *African Journal of Agricultural Research* Vol. 6(3), pp. 748-756.
12. **Njuguna J. W.**, (2010). Diseases of *Melia volkensii* in Kenya. *Science Africa Journal*, April 2010.

13. **Njuguna J. W.; (1996).** Pathogenicity and Control of *Sclerotium rolfsii* Stem Rot of *Sesbania Sesban*, Masters' Thesis, University of Melbourne

6.2. Book Chapter

1. **Njuguna J. W (2013).** Growing *Grevillea robusta* in Kenya: Management and Challenges. MITI Magazine (January to March 2013)
2. **Njuguna J. W., Kamau P (2014).** Know Tree Diseases And Ways To Avoid Them. A Collaborative Extension Material with Biovision International published in the "The Organic farmer" Magazine, No 112, Page 4, and September 2014.
3. **Njuguna J. W., Nyakundi C. (2014).** Grow Grevillea Trees and Make Money: A Collaborative Extension material with Biovision International Published in the "The Organic farmer" Magazine, No 112, Page 5-6, September 2014.

6.3. Technical Notes /Protocols/Guidelines

1. Kiama, S.M., **Njuguna, J.W.**, Maua, J.O., Kaigongi, M.M., Nadir, S., Ngugi J., Koech K.C., and Meso M. (2021). Protocol for Aerial Seeding of Degraded Forests and Landscapes in Kenya, KEFRI, Muguga, Kenya.
2. Kiama, S.M., **Njuguna, J.W.**, Maua, J.O., Kaigongi, M.M., Nadir, S., Ngugi J., Koech K.C., and Meso M. (2021). Aerial Seeding for Rehabilitation of Degraded Forestlands and Landscapes in Kenya: A Technical Report on Pilot Aerial Seeding in Maasai Mau Forest. KEFRI, Muguga, Kenya.
3. <https://ke.opera.news/ke/en/education/41c7013201d3d19c5e2aa4509226c8ba>
4. <https://www.the-star.co.ke/counties/rift-valley/2021-06-14-nine-aerial-seeded-tree-species-germinate-in-maasai-mau/>
5. <https://www.the-star.co.ke/news/big-read/2020-01-09-kirisia-forest-given-lifeline-after-squatters-voluntarily-move-out/>
6. <https://www.the-star.co.ke/news/2021-02-19-how-state-intends-to-achieve-10-per-cent-tree-cover-by-next-year/>
7. <https://www.the-star.co.ke/news/big-read/2019-11-21-how-technology-is-being-used-to-restore-forest-cover-in-mau/>
8. **Njuguna Jane (2018). Chapter 4:** Diseases and Pest Management of *Melia* seedlings in the Nursery. In: Guidelines to On-farm *Melia volkensii* Growing in the Drylands of Kenya. Ministry of Environment Publication March 2018,
9. **Njuguna J. W.**, Oballa P., Meso M., Angaine P., Miingi M. (2016). Status of KEFRI Seed Sources in the Eco-Region Research Programmes. KEFRI Technical Report.
10. **Njuguna J. W. (2015, 2016).** Gender & Climate Change; A global Perspective. Presented at the UNDP Funded Regional training Course on "Policies and Practices for Climate Change Adaptation Course" KEFRI 2015 and 2016.
11. **Njuguna J. W. (2015).** Gender & Climate Change in Social Forestry. Presented at Regional Social Forestry Training Course, KEFRI

12. **Njuguna J. W. (2015).** Health Status of Melia Seed Orchards at Tiva, Kitui. KEFRI Field Report
13. **Njuguna J. W. (2015).** Technical Report on the health status of *Casuarina* species on small scale farms in Kilifi, Lamu and Kwale Counties for the For Kenya Coastal Development Project.
14. **Njuguna Jane** and Ely Mwanza (2014). Rebranding of Central Highlands Eco-region Research Programme (CHERP), and launch of guidelines on growing East African sandalwood in Kenya; June 2014.
15. **Njuguna J.W.,** Mwanza E. J., Lelon J., Kamondo B. N., and Kagombe J. (2014). Rebranding of Central Highlands Eco-region Research Programme (CHERP). Rebranding document, Nairobi
16. Kamondo B. N., Giathi G., **Njuguna J.,** Kagunyu L., Nyingi J., Wakaba S. (2014). Guidelines on growing *Osyris lanceolata* (Sandal wood) through cuttings. KEFRI Technical Report.
17. **Njuguna J. W.,** Wachira N., Oduori E. (2013). Challenges of Growing Aloes in Laikipia, Nyeri, Kirinyaga and Murangá Counties. KEFRI Technical Report
18. **Njuguna J. W.,** Lelon J., Lugadiru., Oballa., (2013). Development of on-Farm Tree Species for Diversification in Central Highlands of Kenya, KEFRI Technical Report
19. **Njuguna J.,** Gathaara M., NJuguna R., Njenga H., Omollo S. (2016). Health Status and Causes of Poor Growth of Eucalyptus Clones in Olkalou Farm, Nyandarua District. Field Technical Report on the Kenya Tea Development Agency (KTDA) Plantations: Makomboki Factory Unit.
20. **Njuguna J. (2014).** Health Status of ICRAF Field Genebanks in Tumbi, Tabora Tanzania, Kitui-Kenya and ICRAF Tree Nursery: A Technical Report for the World Agroforestry Centre
21. **Njuguna J. (2013).** Health Status of ICRAF Field Genebanks in Muguga, Meru, Kakamega, Malava and Kitui: A Technical Report for the World Agroforestry Centre.
22. **Njuguna J.,** Ogembo J., Yobterik E. (2012). Insect Pests and Diseases Associated with Eucalyptus Clones in Riandu Farm, Mbeere District. Field and laboratory Report for Kenya Tea Development Agency Plantations.
23. **Njuguna J.,** Gachathi F., Ogembo J., Njuguna R., Ndakwe B. & Yobterik E. (2012). Status of Trees, Shrubs and Annuals at the Kenya School of Monetary Studies (KSMS). Technical Report for the Kenya School of Monetary Studies.
24. **Njuguna J. W.,** Obonyo E. A., Githiomi J. Muthike N. (2003). Efficient Energy Utilisation and Conservation and the Effects of Indoor Air Pollution among Poor Households in Kajiado, Kirinyaga, Nakuru, Machakos and Nairobi districts in Kenya. **Project Report** for the Shell Foundation/USAID /Energy for Sustainable Development Africa (ESDA) joint project.
25. **Njuguna J. W. (2002).** Technical Report for the DFID Knowledge and Research (KaR) Fuel substitution Project: Report for Energy for Sustainable Development Africa (ESDA) on the status of charcoal use in Kenya. Nairobi Kenya
26. **Njuguna J. W. (2000).** Household Energy and Environmental Conservation in Ngong and Rongai. Project report for KEFRI- Winrock International, Kenya.

27. **Njuguna J. W. (2000).** Household Energy Conservation in the peri-urban areas of Nairobi city. Project Report for Energy for Sustainable Development Africa (ESDA)

6.4. Policy Briefs

1. 2020: Mass Propagation of Bamboo for Ten Percent Tree Cover
2. 2018: National Strategy Towards Achieving and Maintaining 10% Tree Cover in Kenya
3. 2017. A Guideline Framework For KEFRI Engagement With County Governments
4. 2016. National Forests Programme 2016-2030
5. 2016: Tree Seed Supply in Kenya.

7. RESEARCH

7.1. Completed

1. **2015:** Ministerial Budget Technical Committee Advisor for resourcing for KEFRI's Core Mandate (Generation of forestry technologies) from the National Treasury to the institute.
2. **2013:** International Linkage Project Grant of Kshs 5million from the Swedish Research Council to explore the possibilities of "*Selection and Promotion of disease resistant native tree species as alternatives to the Botryosphaeria-disease susceptible Grevillea robusta in the hot and dry areas of Kenya and Uganda*" Collaborative Project between KEFRI-Makerere University and Swedish University of Agricultural Sciences.
3. **2012:** National Council of Science and Technology Grant to Women Scientists 2011-2012, to implement a research project entitled: "*Establishment of on Farm Nurseries of Tissue Culture Bananas and Multipurpose Trees for Sustainable Food Security and Wealth Creation in Siaya County*". Collaboration between KEFRI-KARLO and Kenyatta University
4. **2012:** International Centre for Forest Research (CIFOR) - Rockefeller project: Adaptation of people to climate change in East Africa (ADaPT EA): Ecosystem services, risk reduction and human well-being in East Africa. Collaborative Project between KEFRI-Makerere University and CIFOR
5. **2004-2014:** Decentralization reforms and property rights. Potentials and parcels for forest sustainability and livelihoods in Kenya and Uganda funded by the Ford Foundation
6. **2011-2013:** Forest landscape, institute, and development in East Africa funded by the Volkswagen Foundation and supported one PhD Student from Kenya.
7. **2009-2010:** Two year Grant from Formas Sida/SAREC and Department of Forest Mycology and Pathology (SLU) to support coursework during my PhD studies (2006-2010)
8. **2007:** Technological experience grant to study "Forest Biotechnology and Molecular Phylogenetics of Fungi" at the Forestry and Agriculture Biotechnology Institute, University of Pretoria (March to August 2007) by the Swedish University of Agricultural Sciences (SLU).
9. **2005-2008:** PhD Research Grant from the Ford Foundation through the International Forestry Resources and Institutions (IFRI) research program
10. **1993-1996:** Master of Forest Science Grant from the Australian International Development Award Programme

11. **1997-2007:** The International Forestry Resources and Institutions Research Project (1997-2007) to study institutional arrangements and forest governance in East Africa. The project supported five Masters Studies and two PhD studies.

7.2.Ongoing research

1. **2020:** Solar Heat Drying Facility from UK Innovation Funding Service
2. **2020:** Funding for the restoration of John Michuki Memorial Park
3. **2019:** Commercial Forestry Research Grant from Gatsby Africa
4. **2017:** ICRAF-KEFRI GHU PROJECT (PI). A collaborative research project between KEFRI and ICRAF

7.3. Mentorship and supervision

1. **Michael Okeyo (PhD Study)**
2. **Giathi Gitehi (PhD Study)**
3. **Sheila Cherotich (MSc Study)**
4. **Susan Karani (MSc Study)**
5. **Angela Muthama (MSc Study)**

8. INNOVATIONS AND PATENTS (Intellectual Property)

1. **2020:** KEFRIApp, an innovative mobile application to track progress of 10% Tree Cover in the country
2. **2019:** Aerial Seeding to Restore Maasai Mau Forest
3. **2014-2016:** Decision Support System in Forest and Environmental Health on tree pest and diseases.

9. CONFERENCES/SEMINARS/WORKSHOPS

9.1. Presentation of Papers at Academic and Professional Conferences

1. **Njuguna Jane, Alice Muchugi (2020)** Protecting African Tree Germplasm from invasive and native biotic threats, ICRAF, Celebrating the international year of plant health
2. **Njuguna Jane, Mwanza E., Mutitu E., Omondi W and Muchugi A (2018).** Meeting the Phytosanitary Requirements in Tree Germplasm Exchange in East Africa; Awareness on Importance, Challenges and Opportunities of Tree Seed Health among Stakeholders. *KEFRI Conference in April 2018*
3. **Karani Susan, Njuguna Jane., Muchugi A., Runo S. (2018).** Characterization of fungal pathogens associated with *Vangueria rotundata* and *Berchemia discolor* under domestication in Lower Eastern Kenya using molecular techniques: preliminary results. *KEFRI Conference in April 2018.*
4. **Giathi, G., Kamondo, B., Njuguna, J., Mwangi, S., Kipkoech, N., Ingutia, C (2018).** Rooting Sandalwood stem cuttings using low cost technology employed in commercial propagation of

Camellia sinensis. Presented at the Dedan Kimathi University; 2018

5. **Njuguna Jane** and Ely Mwanza (2017). Health Issues Affecting Exchange of Germplasm of *Grevillea Robusta* in Kenya. Presented during the CGIAR International Phytosanitary Awareness week 23-25th October 2017 at ICRAF, Nairobi.
6. Graziosi I, **Jane Njuguna** and Alice Muchugi (2017). Tree killers: How pests and diseases can impact crucial tree species: International Phytosanitary Awareness Week, October 2017. World Agroforestry Centre, (ICRAF), Kenya
7. Graziosi I, **Jane Njuguna** and Alice Muchugi (2017). Tree Killers: How pests and diseases can impact crucial tree species. Presented during the CGIAR International Phytosanitary Awareness week 23-25th October 2017 at ICRAF, Nairobi
8. **Njuguna J. W.** (2017). Dieback and Canker on *Maesopsis eminii* (Engl.), *Azelia quanzensis* and *Tectona grandis* (L.f.) in the Coastal Forests of Kenya. Paper accepted for presentation at the IUFRO Congress in Frieburg, Germany.
9. **Njuguna J. W.** (2016). Role of Agroforestry in Assuring Food Security in Kenya. Presented at the 1st East African Food Safety, Nutrition, Agro-processing and Innovation Conference 29th to 1st April 2016, Muguga Kenya
10. **Njuguna J.W.** Muchugi A., Mutitu E., Omondi W and Kinyanjui Z. (2016). Phytosanitary challenges in Tree Germplasm Exchanges Within and Among East African Countries. *International Phytosanitary Conference* 12th to 16th Sept 2016, KEPHIS Kenya
11. Ongugo PO, Langat D, Oeba VO, Kimondo JM, Owuor B, **Njuguna J**, Okwaro G and Russell AJM. (2014). A Review of Kenya's national policies relevant to climate change adaptation and mitigation: Insights from Mount Elgon. Working Paper 155. Bogor, Indonesia: CIFOR
12. **Njuguna J.W.**, Barklund P., Ihrmark K., and Stenlid J. (2013). Pathogenicity of Four Botryosphaeriaceae fungi on *Grevillea robusta* under hot and cool conditions in Kenya. International Conference for International Network for Women in Science and Engineering (INWES)
13. **Njuguna J. W.** and Wakaba S. (2013). Diagnosing Ill Health on Selected Tree Species in Kenya: Nursery Management Training Course Kitui, (KEFRI) June 2013.
14. **Njuguna J.W.**, Barklund P., Ihrmark K., (2009). *Grevillea robusta* is threatened by *Botryosphaeria* Canker and Dieback Disease in East Africa. Presented at the World Agroforestry International Conference 23rd -29th August 2009, Nairobi Kenya
15. Barklund P., Nyeko P., Gure A., **Njuguna J.W.**, K and Stenlid J. (2009). *Perspectives on boreal forests and tropical tree pathology with a changing Climate. In: Adaptation of Forests and Forest Management to changing climate with emphasis on Forest health: A review of Science, policies and practices.* August 2009, Umeå, Sweden.
16. **Njuguna J.W.**, Barklund P., Ihrmark K., and Stenlid J. (2008). *Fungi Associated with Canker and Dieback Disease on Grevillea robusta Across Five Agro-ecological Zones in Kenya,*

International Plant Pathology Congress, August 2008 Italy.

17. Ongugo P and **Njuguna J. W (2004)**. *Effects of Forest decentralization in Kenya*. In: Proceedings of the International Association for the Study of common Property Conference, Mexico; August 2004).
18. Ongugo P and **Njuguna J. W (2004)**. *Conservation and Utilization of Medicinal Plants in Kenya*. Proceedings of the regional IFRI Network Meeting held at Moshi Tanzania, 11-15 January 2004.
19. **Njuguna J. W** and P. Ongugo (2004). *Policy Implications of Charcoal Production and Utilization in Kenya*. Proceedings of the regional IFRI Network Meeting held at Moshi Tanzania, January 2004.
20. Ongugo P., **Njuguna J. W.**, G. Sigu and O. Emily (2002). *Livelihoods, Natural Resource Entitlements and Protected areas: The case of Mt. Elgon Forest in Kenya*: Proceedings of the 2nd Biennial meeting of the IFRI Research Network, KEFRI Kenya.
21. Mwangi, L. M., **Njuguna J. W.**, and Ivala J. K (1998). Infection and damage caused by Armillaria in forest plantations in Kenya. In: The Proceedings of the Fourth Regional Mycological Conference (RMC4), held at Nairobi, Kenya.
22. **Njuguna J. W. (1997)**. Diseases and Pest Dynamics in Alley Farming Systems in Kenya In: The Proceedings of the International Conference on Alley Farming Research and Development 14 -18 September 1992 International Institute of Tropical Agriculture, Ibadan Nigeria
23. **Njuguna J. W. (1997)**. Tree Seed Pathology: A Paper Presented at the Regional Course for Seed Technology for Foresters at the Kenya Forestry Research Institute (KEFRI)

9.2.Participation in Workshops/Conferences

1. Leadership for Change Training held at ESAMI (Arusha Tanzania) 14th to 26th May 2000.
2. Database design and management, an International Forestry Resources and Institutions (IFRI) Research Programme training course, Indiana University USA October 1999.
3. Mentoring and Gender Workshop for Teachers and Implementers, Organised and Convened by the AWLAE Program in East Africa, March 20 1999, Nairobi, Kenya.
4. Regional Consultative Meeting on the Future of Agroforestry Research Network for East and Central (AFRENA-ECA): KEFRI (Muguga) 24th – 27th March 1999.
5. 2nd Uganda Forestry Resources and Institutions Research Center (UFRIC) National Workshop: 14th May 1999, Makerere University, Kampala, Uganda.
6. International Forestry Resources and Institutions' (IFRI) Research program Workshop for Collaborating Research Centers; Way Forward for Our Resources, Indiana University June 14 To 19 1999.
7. Pan African workshop for Women in science and engineering. 29th Nov - 3rd December 1999, ICRAF Nairobi.

8. Regional Consultative Meeting on the Future of Agroforestry Research Network for East and Central (AFRENA-ECA): KEFRI (Muguga) 24th - 27th March 1999.
9. Workshop on the Workshop 2. Workshop on Political Theory and Policy Analysis on The State of Natural Resources and the Institutions that manage them, Indiana University, USA, June 9 – 13, 1999.
10. Workshop on Scientific Writing and Communications Skills for Women Scientists in East Africa. KEFRI Hqts Muguga 27th July - 6th August 1997 organised by WINROCK International with support from CIDA and CTA.
11. Workshop on Data Collection, Analysis and Presentation on Forest sampling and Participatory Rural Appraisal: ICRAF - International Forest Resources Institute Programme at KEFRI, Muguga, August 27 to September 13 1997.
12. Gender Awareness Workshop for Senior Managers and Researchers at KEFRI Headquarters, June 1996 Muguga May 29 1996.

10. PROFESSIONAL ENGAGEMENT

10.1. Training

a. Management Training

1. Strategic Leadership Development Programme, Kenya School of Government, January–February 2018.
2. Senior Management Course, Kenya School of Government, March 2017.
3. Taking Better Board Minutes: Silver Springs Hotel, October 2015; Conducted by ICSPK.
4. Strategic Execution with Strategy Maps and Balanced Score Card Master Class: Nairobi April 2014.
5. Performance Appraisal Course, Thika, KEFRI Consultant November 2014.
6. Job Evaluation KEFRI, May 2013 Conducted by Prestige Management Solutions
7. The Balanced Score Card Approach to Management, KEFRI, 2013, Conducted by Prestige Management Solutions Ltd.
8. Strategic Leadership and Change Management Course (KIM March 2011), Kenya
9. Leadership for Change Training held at ESAMI (Arusha Tanzania) 14th to 26th May 2000.
10. Workshop on Scientific Writing and Communications Skills for Women Scientists in East Africa. KEFRI Headquarters, Muguga 27th July – 6th August 1997 Organized by WINROCK International with support from CIDA and CTA.
11. Mentoring and Gender Workshop for Teachers and Implementers, Organised and Convened by the AWLAE Program in East Africa, March 20 1999, Nairobi, Kenya.
12. Gender Awareness Workshop for Senior Managers and Researchers at KEFRI Headquarters, June 1996 Muguga May 29 1996.
13. Sales and Marketing (IMIS 1996)

b. Training on scientific matters

1. Data Collection Using the Poverty and Environment Network (PEN) tool, ICRAF 2013.
2. Plant Disease Fact Sheet Training, Naivasha Kenya by CABI (2012)

3. Research Data Management by ICRAF, November 2012
4. Communicating Forestry Research to Policy Makers; IUFRO, Pre-conference workshop, Nairobi, Kenya (2012)
5. Development of extension materials, Internal Leadership and Management Training Centre, Nairobi –Kenya (2012).
6. Environmental Impact Assessment and Audit (Kenya School of Government, 2010).
7. Writing better Scientific papers (SLU 2009).
8. Biostatistics course, International Centre of Insect Physiology and Ecology (ICIPE, 2008), Nairobi, Kenya.

10.2.Consultancies

1. **2016.** Report on management of seed stands in Kakamega County by KEFRI and ICRAF
2. **2017.** Developing protocols for detecting seed borne pathogens for *Grevillea robusta* and *Moringa Oleifera*
3. **2016-2017.** Health status of ICRAF gene banks in Kenya and Tanzania- **ICRAF**
4. **2014.** Status of insect pests and tree diseases associated with Eucalyptus in Kathungururu Sub-location in Makuyu- **Kenya Tea Development Authority (KTDA)**
5. **2012.** Health status trees, shrubs and annual plants- **Kenya School of Monetary Studies**
6. Community Seed Banking: Opportunities and Conditions for Successful Seed Banking in Tharaka district- **Intermediate Technology Development Group (ITDG) Nairobi Kenya**
7. Community Seed Banks in Makueni District: Post harvest losses in Community Seed Banks- **Intermediate Technology Development Group (ITDG) Nairobi Kenya**

11. EXTERNAL AND INTERNAL RESEARCH GRANTS

1. **2020:** Solar Heat Drying Facility from UK Innovation Funding Service
2. **2020:** Funding for the restoration of John Michuki Memorial Park
3. **2019:** Commercial Forestry Research Grant from Gatsby Africa
4. **2017:** ICRAF-KEFRI GHU PROJECT (PI). A collaborative research project between KEFRI and ICRAF
5. **2015:** Ministerial Budget Technical Committee Advisor for resourcing for KEFRI's Core Mandate (Generation of forestry technologies) from the National Treasury to the institute.
6. **2013:** International Linkage Project Grant of Kshs 5million from the Swedish Research Council to explore the possibilities of "*Selection and Promotion of disease resistant native tree species as alternatives to the Botryosphaeria-disease susceptible Grevillea robusta in the hot and dry areas of Kenya and Uganda*" Collaborative Project between KEFRI-Makerere University and Swedish University of Agricultural Sciences.
7. **2012:** National Council of Science and Technology Grant to Women Scientists 2011-2012, to implement a research project entitled: "*Establishment of on Farm Nurseries of Tissue Culture Bananas and Multipurpose Trees for Sustainable Food Security and Wealth Creation in Siaya County*". Collaboration between KEFRI-KARLO and Kenyatta University

8. **2012:** International Centre for Forest Research (CIFOR) - Rockefeller project: Adaptation of people to climate change in East Africa (ADaPT EA): Ecosystem services, risk reduction and human well-being in East Africa. Collaborative Project between KEFRI-Makerere University and CIFOR
9. **2004-2014:** Decentralization reforms and property rights. Potentials and parcels for forest sustainability and livelihoods in Kenya and Uganda funded by the Ford Foundation
10. **2011-2013:** Forest landscape, institute, and development in East Africa funded by the Volkswagen Foundation and supported one PhD Student from Kenya.
11. **2009-2010:** Two year Grant from Formas Sida/SAREC and Department of Forest Mycology and Pathology (SLU) to support coursework during my PhD studies (2006-2010)
12. **2007:** Technological experience grant to study “Forest Biotechnology and Molecular Phylogenetics of Fungi” at the Forestry and Agriculture Biotechnology Institute, University of Pretoria (March to August 2007) by the Swedish University of Agricultural Sciences (SLU).
13. **2005-2008:** PhD Research Grant from the Ford Foundation through the International Forestry Resources and Institutions (IFRI) research program
14. **1993-1996:** Master of Forest Science Grant from the Australian International Development Award Programme
15. **1997-2007:** The International Forestry Resources and Institutions Research Project (1997-2007) to study institutional arrangements and forest governance in East Africa. The project supported five Masters Studies and two PhD studies.

12. LOCAL, REGIONAL & INTERNATIONAL APPOINTMENTS

12.2.Local

1. **October 2017:** Co-Chair of the Inter-ministerial National Technical Liaison Committee for the management of forestry and environment resources in Kenya.
2. **January to February 2015:** Co-Chair of the Cabinet Secretary of MENR and RDAs task force on lifting the moratorium on forest exploitation in Kenya
3. Board Member: Kenya Forest Service
4. Board Member: Biovision Africa Trust
5. Chairperson Uthabiti SACCO Ltd
6. Chair: Kahawa Sukari Cluster 10 Neighborhood Welfare
7. Member of the Kahawa Sukari Church Development Committee

12.3.International

1. **October 2019:** Implementing Presidential commitments on establishing international botanical garden in Barbados.
2. **September 2015:** Secretary and member of the Cabinet Secretary of the Ministry of Environment Natural Resources and Regional Development Authorities (MENR and RDAs) technical team visit to the Government of Finland and the Global CleanTech Summit; Helsinki.

13. CONTRIBUTION TO KEFRI's ADVANCEMENT

1. Technical secretary to the Executive Committee of KEFRI
2. Co-Chair of the KEFRI's Junior Administrative Advisory Committee.
3. Member of KEFRI's Revenue Committee (2015 to present)
4. Member of KEFRI's Training Committee (2014 to present)
5. Chair of KEFRI AWARD Committee (2014-present)
6. Member of the KEFRI's Junior Administrative Advisory Committee (JSAC) since 2003.
7. Leader of the KEFRI Medical Scheme Committee that delivered the first medical insurance covers to the institute in 2012.
8. Co-chair of the taskforce on organising KEFRI's Silver Jubilee celebrations in December 2011.

14. MEMBERSHIP TO PROFESSIONAL BODIES

1. Member and founding members of the African Women in Biosciences Forum 2017.
2. Full Member of the Forestry Society of Kenya.
3. Member of the African Mycological Society Member of the Kenya Women in Agriculture and Environment
4. Member of the American association of Colleges and Universities

15. REFEREES

1. Professor Geoffrey M. Muluvi, PhD

Vice Chancellor

South Eastern Kenya University

P.O. BOX 170-90200, Kitui

E-mail: vc@seku.ac.ke, gmmuluvi@gmail.com, gmuluvi@seku.ac.ke

2. Professor Jan Stenlid

Swedish University of Agricultural Sciences

Department of Forest Mycology and Pathology

P.O.Box 7026, SE-750 07

Uppsala Sweden

Email: jan.stenlid@slu.se

3. Professor Grace Wamue-Ngare

Kenyatta University

P.O. BOX 43844-00100

E-mail: gwamuengare@yahoo.com