

CURRICULUM VITAE

Hellen Wangechi Kamiri (PhD)
Lecturer in Agricultural Sciences
Department of Crop Science
School of Agriculture and Biotechnology
Karatina University

PERSONAL DATA

SURNAME : Kamiri
OTHER NAMES : Hellen Wangechi Mwaura
PERMANENT ADDRESS : 1364 (00621) Village Market, Nairobi-Kenya
INSTITUTIONAL ADDRESS : Karatin University, P.O. Box 1957, Karatina
Kenya
TELEPHONE : Handy: +254 722 221587
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NATIONALITY : Kenyan

SUMMARY: Over 4 years experience in University Teaching and over 14 years in Research and Management in International Research Institutions.

COURSES TAUGHT/TEACHING-(Undergraduate)-Introduction to Soil Science, Soil Chemistry, Soil Fertility and Plant Nutrition, Organic Farming Systems, Introduction to E. African Agriculture.

Coordination-Fourth Year Special Projects, Field attachments and Field Courses

MSc- Arid land Agriculture, Research Methods

PhD program (D Phil): Research Proposal Development and Seminars

EDUCATION:

2010 Ph.D in Agricultural Sciences (Soil Science option), University of Bonn Germany. Minors in Ecosystem and Land use changes, Climatic variations and Crop Modeling using Simulation Models.

Ph.D Thesis- Effects of land use dynamics on attributes of wetland soils in East Africa.

2005-Diploma in Database Management- Infotech Training College Nairobi-Majors in Scientific Database development and management.

2003 MSc. in Soil Science. Moi University

Thesis- Evaluation of Soil Fertility Management Options in a Maize-Bean intercrop in Western Kenya.

1998-Bsc. Forestry-Moi University

Other professional trainings

2011: DAAD Expert Seminar on Sustainable Natural Resource Management and Conflict Management in Trans-boundary Mountainous ecosystems-Mbale, Uganda

2010: Professional training on Disaster and Risk management, United Nations University, Bonn, Germany

2004 and 2005-Crop Modeling and simulation techniques Using DSSAT Version 3.5 and Version 4

2005: Writing skills. Training on Improving your Scientific Communication Skills, "Writing to be Read" ICRAF, Nairobi.

2005: HIV/Aids training-UN Learning Strategy on HIV/AIDS, Learning and Awareness in Work environments

PUBLICATIONS SUMMARY

Published 10 peer-reviewed journal articles and 13 conference papers.

RECENT PEER REVIEWED PUBLICATIONS

Kamiri, H., Kreye, C., and Becker, M (2013). Dynamics of agricultural use differentially affect soil properties and crop response in East African wetlands. *Wetlands Ecology and Management*. Vol 21, Issue 4. Issue 6, pp 417-431.

Kamiri, H., Kreye, C., and Becker, M (2013). Assessing selected soil properties responses to wetland cultivation in floodplain wetlands of east Africa. *International Journal of AgriScience* Vol 3 (11).825-837

Handa C. Alvarez M., Becker M., Oyieke H., Möselers B.M., Mogha N., **Kamiri H. (2012)**. Opportunistic vascular plant introductions in agricultural wetlands of East Africa. *International Journal of AgriScience* Vol. 2(9):810-830.

Kavoo, A., Mugendi, D.N., Muluvi, G., Vanlauwe, B., Six, J., Merckx, R., Gentile, R., **Kamiri, H.W.** (2011). Interaction between Resource Quality, Aggregate Turnover, Carbon and Nitrogen Cycling in the Central Highlands of Kenya. In: A. Bationo et al. (eds.), *Innovations as Key to the Green Revolution in Africa*, page 807 – 816.

Miguel Alvarez, Mathias Becker, Beate Böhme, Collins Handa, Matthias Josko, **Hellen W. Kamiri**, Matthias Langensiepen, Gunter Menz, Salome Misana, Neema G. Mogha, Bodo Maria Möselers, Emiliana J. Mwita, Helida A. Oyieke & Nomé Sakané. (2012). Floristic classification of the vegetation in small wetlands of Kenya and Tanzania. *In: Dengler, J., Chytrý, M., Ewald, J., Finckh, M., Jansen, F., Lopez-*

- Gonzalez, G., Oldeland, J., Peet, R.K., Schaminée, J.H.J. (2011) [Eds.]: Vegetation databases for the 21st century. – Biodiversity & Ecology 4:
- Sakane, N., Alvarez, M., Becker, M., Böhme, B., Handa, C., **Kamiri, H. W.**, Langensiepen, M., Menz, G., Misana, S., Mogha, N., Mösel, B., Mwita, E., Oyieke, A.H., van Wijk, M. 2011. Classification, characterization, and use of small wetlands in East Africa. *Wetlands*. 31: 1103-1116
- Kamiri, H.W.**, Pypers, P and Vanlauwe, B. (2011). Residual Effects of Applied Phosphorus Fertilizer on Maize Grain Yield and Phosphorus Recovery from a Long-Term Trial in Western Kenya. In: A. Bationo et al. (eds.), *Innovations as Key to the Green Revolution in Africa*, page 717 – 729. ISBN 978-90-481-2541-8.
- Kamiri, H.W.** (2010). Effects of land use dynamics on attributes of wetland soils in East Africa. PhD thesis. Institute of Crop Science and Resource Conservation, Department of Plant Nutrition, Bonner Agrikulturchemische Reihe, University of Bonn. Germany. ISBN. 3-937941-25-8.
- Chivenge, P., Vanlauwe, B., Gentile, R., **Wangechi, H.**, Mugendi, D., van Kessel, C. and Six, J. (2009). Organic and Mineral Input Management to Enhance Crop Productivity in Central Kenya *Agronomy Journal*, 101: 1266-1275.
- Ndufa, J.K., Gathumbi, S.M., **Kamiri, H.W.**, Giller, K.E. and Cadisch, G. (2009). Do Mixed-Species Legume Fallows Provide Long-Term Maize Yield Benefit Compared with Monoculture Legume Fallows? *Agronomy Journal*. 101:1352-1362

RESEARCH WORK EXPERIENCE

September 2011 to Dec 2013: Post doctoral Research Fellow, Department of Plant Nutrition, University of Bonn Germany. Research on yield and yield gap analysis of maize and rice crop in Central Kenya and Northwest Tanzania.

2012 to date: Technical expert Value Chain development program of the Agricultural Sector Development Support Program (ASDSP) Laikipia county aimed at identifying the various value chains, the Actors and mapping the value chains in Laikipia County in collaboration with ASDS Ministries- Agriculture, livestock , Fisheries ,Cooperatives ,Water and Irrigation , Lands , Environment ,Forestry , Northern Rangelands &Regional Dev. and the Private Sector.

September 2007 to Nov 2010: Junior Research Fellow with PITROS group (Plant Nutrition in the Tropics and sub-Tropics) in the Department of Plant Nutrition, Institute of Crop Science and Resource Conservation (INRES), University of Bonn-Germany.

Provided recommendations to PITROS soil and Plant Laboratory on wet chemistry analysis methods of tropical soils.

April 2004 to August 2007: Scientific Assistant with the Tropical Soil Biology and Fertility Institute of CIAT (TSBF-CIAT Nairobi) based at World Agroforestry Centre (ICRAF), Nairobi. Main responsibilities included coordination of network research experiments on maize, soybean, and bananas in West and East African regions (Ghana, Zimbabwe, Uganda and Kenya) under the Integrated Soil Fertility Management (ISFM) program, management of research databases and supervision of graduate research activities.

September 2003 to March 2004: -Consultant with World Agroforestry Centre (ICRAF) on agro biodiversity conservation project in western Kenya. On the role of ecological knowledge and information flow in determining the adoption of agroforestry technologies in Western Kenya.

September 2000 to May 2003: Moi University Eldoret-As part of my M.Sc. Degree, I undertook a study to evaluate the benefits of various soil fertility management strategies on maize and beans production systems in several districts in western Kenya (Busia, Bungoma, Siaya, Vihiga and Teso).

May 1998 to August 2000: ICRAF-Maseno-Research assistant on several graduate students projects.

RESEARCH GRANTS RECEIVED AND CURRENT RESEARCH ACTIVITIES

Nov 2013 to Nov 2016: Co Researcher on the Project Value Chain Development for Food Security in the Context of Climate Change- A contribution through strengthening capacity in higher education in Eastern Africa (ValueSeC) funded by EU. Participating institutions Karatina University (Prof G. Nduru), Humboldt University (Germany), Haramaya University (Ethiopia) and University of Nairobi,

2011-2013 Post doctoral Research Grant from Volkswagen Foundation and University of Bonn Germany for the Project Titled Vulnerability and Productivity of major wetland types in East Africa-SWEA-II.

2012-2014 2million Ksh. Science, Technology and Innovation Grant from National Council for Science and Technology (NACOSTI) for the research titled Environmental Degradation of Lake Baringo Ecosystems. Its effects on Natural

Resource Use and Livelihoods. **Co-Researcher with partners from National Museums of Kenya, Fisheries Department and KENFAP.**

2013-IRSTEA France Grant on a joint study titled ``Organic Farming in Kenya, a tool to fight against poverty. Analysis of the certifications effect on the smallholders incomes and ecosystems services

2000-2003: Rockefeller Foundation-FORUM on Agricultural Husbandry, Grant to conduct research on the use of low-input technologies for enhancement of soil fertility and food production in western Kenya and a fellowship to pursue M.Sc studies at Moi University, Kenya.

Sept-Dec 1999: World Agroforestry Centre (ICRAF) Research and training fellowship on the Effect of improved fallows on soil phosphorous management in western Kenya.

GRADUATE STUDENTS SUPERVISING/SUPERVISED

To graduate, Catherine W. Njuguna. MSc. Student, Department of Soil Science-University of Eldoret, title, ``Effects of Plant Density and Soil Nitrogen on the Leaf Area Index (LAI) and Productivity of Maize on Wetland Soils in Central Kenya``. University of Eldoret. **Thesis development in advanced stage Degree to be awarded in 2014.**

Richarts, H., 2010. (Msc). Plant Nutrition, University of Bonn Germany. Title ``The effect of land use on Phosphorus availability on East African wetlands``. Co supervised with Prof Mathias Becker. University of Bonn Germany: **Degree Awarded September 2010**

TEACHING EXPERIENCE

2011 August- to date -Lecturer-Soil science, Soil fertility and plant nutrition in the Department of Crop Science, School of Agriculture and Biotechnology and the School of Natural Resources.

2009-Part time lecturer Central Kenya Campus of Moi University- Soil science, Soil fertility and plant nutrition

UNIVERSITY AND DEPARTMENTAL RESPONSIBILITIES

February 2013 to date - Head of Department-Crop Science

2013-appointed Member of Senate committee on Finance, Planning and Human Resources

2013- Appointed member of the Senate committee on Research, Linkages and Collaborations

2012-2013: Member of the Committee on ICT-which successfully developed the Karatina University ICT policy.

2013- Appointed Member of the Committee on E-Learning- currently developing the E-Learning Policy.

CONFERENCE ATTENDED (with paper or Poster Presentation)

2013: **Kamiri, H. W.** Kreye, C and Becker, M. 2013. Dynamics of agricultural use differentially affect soil properties and crop response in East African wetlands. XVII International Plant Nutrition Colloquium, Plant nutrition for nutrient and food security, August 19-22, 2013 **Istanbul, Turkey**
<http://www.plantnutrition.org/files/downloads/2013ipnc-b-proceedings.pdf>

pp88-89 (Paper Presented)

2013: **Kamiri H.**, Richarts H., Kreye C and Becker M. Effects of Agricultural Land Uses on Phosphorus Fractions and Aggregation of Wetland Soils in East Africa. The 27th Soil Science Society of East Africa and 6th Africa Soil Science Society Conference, Cathay Hotel, Nakuru-Kenya, 20-25 October 2013 **(Paper Presented)**

2012: **Kamiri, H.W** and Becker, M. (2012). Agricultural land uses and how they affect soil properties in wetlands of East Africa. Karatina University College 1st international conference on Natural resources, conflicts and peace. Date: 25th-28th July 2012. **(Poster Presentation)**

2012: Kimani, C.W., **Kamiri, H.W.**, Muriungi, S.J., Kamotho, G. and Mathenge, P.W. (2012) Evaluation of land management practices effects on selected soil properties within Karatina University farm Karatina university college 1st international conference on Natural resources, conflicts and peace. Date: 25th-28th July 2012. **(Poster Presentation)**

2010: **Kamiri, H.W.** Small Wetlands in East Africa: their Agricultural Potential and Vulnerability. United Nations University-UNU-EHS. 5th PhD Block course on "From Vulnerability to Resilience in Disaster risk and management". April 7-17, 2010. Bonn Germany. **(Poster Presentation)**

2010: Richarts, R., **Kamiri, H** and Becker, M. 2010. Effects of land use on Phosphorus fractions in different wetland soils. *In:* Eric Tielkes (Ed). World Food System - A Contribution from Europe. Tropentag 2010, Book of Abstract. 14th - 16th October, 2010. Zurich, Switzerland. ISBN-13:9783869554556.

http://www.tropentag.de/2010/abstracts/links/Richarts_9khYuSw8.pdf 08/15/10,
(Poster Presentation)

- 2010: Alvarez, M., Mogha, N., Moeseler, B.M., Handa, C., **Kamiri, H.**, Becker, M., Sakane, N and Langensiepen, M. 2011. Vegetation Analysis to Assess the Impact of Land Use History and Intensity on the Resilience of Small Wetlands in East Africa. *In*: Eric Tielkes (Ed). World Food System - A Contribution from Europe. Tropentag 2010, Book of Abstract. Zurich, Switzerland. ISBN-13:9783869554556. **(Poster Presentation)**
http://www.tropentag.de/2010/abstracts/links/Becker_dO1S45lc.php 01/24/11
- 2009: **Kamiri, H.W.** and Becker, M. 2009. Effect of Land Use Patterns on Soil Properties of Agriculturally Used Wetlands in East Africa. *In*: Eric Tielkes (Ed). Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources: International research on food security, natural resource management and rural development. Tropentag 2009, Book of Abstract. Hamburg, Germany. ISBN: 978-3-9801686-7-0. Online-Version: **(Poster Presentation)**
http://www.tropentag.de/2009/abstracts/links/Kamiri_a6b2udgT.pdf.
- 2009: Handa, C., Sakane, N., Boehme, B., **Kamiri, H.**, Mwita, E and Mogha, N. Characterisation of Small Wetlands in East Africa. *In*: Eric Tielkes (Ed). Biophysical and Socio-economic Frame Conditions for the Sustainable Management of Natural Resources: International research on food security, natural resource management and rural development. Tropentag 2009, Book of Abstract. Hamburg, Germany. ISBN: 978-3-9801686-7-0. Online-Version: **(Poster Presentation)** http://www.tropentag.de/2009/abstracts/links/Handa_boPW4qgw.php 12/29/09.
- 2007: **Wangechi H.K.**, Pypers, P. and Vanlauwe, B. (2007). Residual Effects of Applied Phosphorus Fertilizer on Maize Grain Yield and Phosphorus Recovery from a Long-Term Trial in Western Kenya. International Symposium organized by AfNET-TSBF-CIAT and Soil Fertility Consortium for Southern Africa (SOFECSA) Sept 17th -21st 2007, Arusha Tanzania. **(Paper Presented)**
- 2004: **Wangechi HK.**, Kiwia, A.M., Noordin, Q., Jama, B., Oundo, M (2004). Farmers' knowledge on soil fertility management and agro-biodiversity conservation in Vihiga and Siaya districts of western Kenya. *P A paper presented to the SSSEA conference.* 28-2th Dec, 2004. Arusha Tanzania **(Paper Presented)**
- 2002: **Mwaura. H.W.**, Okalebo, J.R., Othieno, C.O. (2002). Evaluation of Soil Fertility management Option in western Kenya: *Paper presented to the 20th SSSEA conference.* 2-6th Dec, 2002. Mbale Uganda. **(Paper Presented)**
- 2002: **Mwaura, H. W.**, Okalebo, J.R., Woomer., P.L Kimenye, L.N., Mukhwana E.J. and Othieno. C.O. (2002). Soil fertility restoration technologies. A case study of

western Kenya. *Fifth Regional Meeting of the Forum on Agricultural Resource Husbandry*, 12-16 August 2002. Kampala. Uganda (**Paper Presented**)

OTHER PROFESSIONAL EXPERIENCES

2011- to date-**Member** of the Board of Management of Muthuaini Girls Secondary Schools and **Chair of the Academic Committee**.

2013-**Consultant**- Agribusiness And Agronomic Resource Centre Kenya, Nairobi

PROFESSIONAL MEMBERSHIP IN LEARNED SOCIETIES

Current member (2004 to date) African Network (AfNET) of Tropical Soil Biology and Fertility

(2002 to date) Member of Soil Science Society of East Africa (SSSEA)

(2013 to date) Member of African Soil Science Society (ASSS)

(2004 to date) Member of Gender and Diversity program-WAC

REFEREES:

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