

CURRICULUM VITAE

DR. RICHARD N. ONWONGA, PhD

PERSONAL DETAILS

DR. RICHARD NDEMO ONWONGA



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Nationality: Kenyan

Marital Status: Married with Children

Language: English, Kiswahili and Ekegusii

Soil Scientist/Agronomist with specialization in soil agroecology. Acquired technical and professional skills/competences vital for enhanced work performance and career aspirations.

A: EMPLOYMENT AND EXPERIENCE

Currently a **Senior Lecturer** (since April 2013) in the Department of Land Resource Management and Agricultural Technology (LARMAT), University of Nairobi. Teaching and supervising both undergraduate and postgraduate students on various soil and soil-environment related courses and carrying out research in areas of specialization. Current research interest are on; (i) application of agroecological intensification approaches/techniques to enhance agricultural productivity under semi-arid environments and (ii) Modeling soil organic carbon dynamics for informed mitigation of climate change and development of a carbon accounting system for Kenya.

Previously (October 2007-March, 2013) served as a **lecturer** in the same department with similar responsibilities of teaching, research, supervision and outreach.

Between May 1997-September, 2007 worked with the Ministry of Agriculture (**as an Agricultural Officer**) in various capacities: In Charge Soil fertility management and technology promotion;, Divisional Extension Coordinator - National Agriculture and Livestock Extension Project and Lecturer (Baraka Agricultural College). Served as the link person between the Ministry of Agriculture (MoA) and Kenya Agriculture Research Institute for the Kenya Agriculture Productivity and Sustainable Land Management Project and oversaw the implementation of the World Bank sponsored, work improvement initiatives including service charters and 100 days Rapid Result Initiatives (RRI) for the MoA.

Graduate teacher between August 1994 and January 1995 – teacher and head of Agriculture/Biology Department – Mokomoni Secondary School.

B: EDUCATION AND TRAINING

PhD in Natural resources Management (Doctor rerum naturalium technicarum/Dr. nat. techn)
- Evaluation of Smallholder Farming System Sustainability and Potential for Organic Farming in Nakuru District, Kenya - (2002-2005), University of Natural Resources and Applied Life Sciences (BOKU), Vienna.

M.Sc. in Soil Science, - The effect of incorporating chickpea residue on soil nutrient status, nitrogen availability and wheat yield in a chickpea - wheat rotation cropping system (1995-1997), Egerton University.

B.Sc. in Agriculture Education & Extension (1990-1994), Egerton University.

Kenya Advanced Certificate of Education (1988-1989), Cardinal Otunga High School – Mosoch.

Kenya Certificate of Education (1984-1987), St. Paul’s Gekano High School.

Certificate of Primary education (1983), Kineni Primary School.

C: PUBLICATIONS

(i) Refereed publications in journals (submitted/published)

1. Nepomuscene Ntukamazina, **Richard N. Onwonga**, Rolf Sommer, Jean Claude Rubyogo, Clare M. Mukankusid, John Mburue, Rahab Kariuki 2017. Index-based agricultural insurance products: challenges, opportunities and prospects for uptake in sub-Saharan Africa. *Journal of Agriculture and Rural Development in the Tropics and Subtropics* 118 (2) 171–185
2. Nepomuscene Ntukamazina, **Richard N. Onwonga**, Rolf Sommer, Clare M. Mukankusi, John Mburu and Jean Claude Rubyogo 2017. Effect of excessive and minimal soil moisture stress on agronomic performance of bush and climbing bean (*Phaseolus vulgaris*L.) *Cogent Food & Agriculture* 1-14
3. O. H. Ndukhu, **N. R. Onwonga**, G. R. Wahome, G. Kironch and H. H. Jensen 2017. Effect of Integrating Chickpea and Organic Amendments on Yield and Quality Attributes of Tomato and Maize in Central Kenya. *Journal of Agriculture and Ecology Research International* 12(4): 1-22, 2017
4. Humphrey Agevi, **Richard Onwonga**, Shem Kuyah, Mugatsia Tsingalia 2017. Carbon Stocks and Stock Changes in Agroforestry. *Practices: A Review. Tropical and Subtropical Agroecosystems*, 20 (2017): 101 - 109
5. Paul Anguria, George N. Chemining’wa, **Richard N. Onwonga** & Michael A. Ugen 2017. Effect of Organic Manures on Nutrient Uptake and Seed Quality of Sesame. *Journal of Agricultural Science*; (7)135-144
6. Paul Anguria, George N. Chemining’wa, **Richard N. Onwonga**, & Michael A. Ugen 2017. Effects of Organic Residues on Soil Properties and Sesame Water Use Efficiency. *Journal of Agricultural Science* 9 (6) 98-107. DOI: <https://doi.org/10.5539/jas.v9n6p108>

7. Paul Anguria, George N. Chemining'wa, **Richard N. Onwonga**, & Michael A. Ugen 2017. Decomposition and Nutrient Release of Selected Cereal and Legume Crop Residues. *Journal of Agricultural Science* 9 (6) 108-119. DOI: <https://doi.org/10.5539/jas.v9n6p108>
8. Omwoyo M. A., N. J. Muthama, A. Opere, **R. Onwonga**, 2017. Simulating Streamflow in Response to Climate Change in the Upper Ewaso Ngiro Catchment, Kenya. *Journal of Climate Change and Sustainability*. Vol 1, issue 2, pp. 12-29.
9. Ruth C. Sitienei, **Richard N. Onwonga**, Joyce J. Lelei and Peter Kamoni, 2017. Use of Dolichos (*Lablab Purpureus* L.) and Combined Fertilizers enhance Soil Nutrient Availability, and Maize (*Zea Mays* L.) Yield in Farming Systems of Kabete sub - County, Kenya. *Agricultural Science Research Journal* Vol. 7(2): 47 – 62. Available online at <http://resjournals.com/journals/agricultural-science-research-journal.html>
10. Noel A. Templer, Joyce J. Lelei and **Richard N. Onwonga** (2017) Soil Available Nutrients, pH and Yield Variation in Legume - Maize Systems Utilizing Two Phosphorus Sources in Kabete Kenya. *International Journal of Research in Agricultural Sciences*. 4 (1): 2348 – 3997
11. Wycliffe Ongachi, **Richard Onwonga**, Hillary Nyanganga, Florent Okry 2017. Comparative Analysis of Video Mediated Learning and Farmer Field School Approach on Adoption of Striga Control Technologies in Western Kenya. *International Journal of Agricultural Extension*. *Int. J. Agr. Ext.* vol. 05 (01). 01-10
12. Shadeya Akundabweni Juniour, Buseinei John, **Richard Onwonga**, 2017. Sustainable Livelihood Approach For Assessing Household Adoption To Eviction: Mau Forest, Kenya. *International Journal of Scientific & Technology Research* Volume 6 (8) 378-383.
13. Edward Gizemba Ontita, Cecilia Moraa Onyango, **Richard Ndemo Onwonga** and Desterio Nyamongo 2016. Indigenous Knowledge on the Uses of African Nightshades (*Solanum nigrum* L.) Species among Three Kenyan Communities. *Asian Journal of Agricultural Extension, Economics & Sociology* 14(3): 1-8, 2016.
14. O. H. Ndukhu, N. **R. Onwonga**, G. R. Wahome, G. Kironch and H. H. Jensen 2016. Assessment of Organic Farmers' Knowledge and Adaptation Strategies to Climate Change and Variability in Central Kenya. *British Journal of Applied Science & Technology* 17(6): 1-22
15. M Yvonne, **Onwonga Richard**, S Solomon, K George (2016) Farmer Perception and Adaptation Strategies on Climate Change in Lower Eastern Kenya: A Case of Finger Millet (*Eleusine coracana* (L.) Gaertn) Production. *Journal of Agricultural Science* 8 (12), 33-40.
16. Erick Nyagari, Cecilia Moraa Onyango, **Richard Ndemo Onwonga** (2016) Effects of Intercropping Arrangements And Fertilizer Application on Growth and Yield of African Nightshade (*Solanum Nigrum* L.) in Kisii County, Kenya. *International Journal of Agriculture and Environmental Research* (05) 1069-1083.
17. Cecilia M. Onyango, **Richard N. Onwonga** and John W. Kimenju 2016. Assessment of Spider Plant (*Cleome gynandra* L.) Germplasm for Agronomic Traits in Vegetable and

Seed Production: A Green House Study. *American Journal of Experimental Agriculture* 10(1): 1-10, 2016.

18. Wango V.N., Mburu J., **Onwong'a R.**, Nyikal R. 2016. Assessing Profitability of Selected AgroEcological Intensification Techniques In Sorghum and Cassava Based Cropping Systems in Yatta Sub County, Kenya. *International Journal of Scientific & Technology Research* 5(5) 187-191.
19. S. I. Shibairo, Y. M. Madegwa and R. N. **Onwonga** 2016. Finger Millet (*Eleusine corocona*) Production in Lower Eastern, Kenya: Status, Constraints and Opportunities. *British Journal of Applied Science & Technology* 14(6): 1-10
20. **Richard N. Onwonga**, Noel A. Templer, Joyce J. Lelei, Faith J. Toroitich, 2015. Combined Effects of Legumes with Phosphorus Fertilizer on Nutrient Balances and Gross Margins in Maize (*Zea mays* L.) systems of Kabete sub-County, Kenya. *Journal of Biology, Agriculture and Healthcare* 5:65-77. Available at <http://iiste.org/Journals/index.php/JBAH/article/view/25133/25737>.
21. **Onwonga, R.**, Namoi, N., Lelei, J. 2015. Influence of Organic Based Technologies on Soil Nutrient Status in Semi-Arid Yatta Sub-County, Kenya. **Journal of Agricultural Science** 7:56-80.
Available at: <<http://www.ccsenet.org/journal/index.php/jas/article/view/48078>>.
22. A Fikir, **R Onwonga**, K Mwangi, James, W Oliver. V. 2015. Assessment of Shoreline Changes in the Period 1969-2010 in Watamuarea, Kenya. *Global Journal of Science Frontier Research (GJSFR)* 14 (6), 19-31.
23. *Muli M. N., Onwonga R. N., Karuku G. N., Kathumo V. M., Nandukule M. O.* 2015. Simulating Soil Moisture under Different Tillage Practices, Cropping Systems and Organic Fertilizers Using CropSyst Model, in Matuu Division, Kenya. *Journal of Agricultural Science*. 7: (2) 15-36.
24. Solomon Igosangwa Shibairo¹, Oliver Nyongesa, **Richard Onwonga** and Jane Ambuko, 2014: Variation of Nutritional and Anti-Nutritional Contents in Finger Millet (*Eleusine coracana* (L.) Gaertn) Genotypes. *Journal of Agriculture and Veterinary Science*. 7 (11), 06-12.
25. Beldina A. Tunya, Joyce J. Lelei, P. Ouma, **Richard N. Onwonga** 2014. Effect of Triple Superphosphate and Minjingu Phosphate Rock Fertilizer application on Nutrient Content and Grain Yields of Sorghum in Various Cropping Systems. *International Journal of Research in Agricultural Sciences* 1 (6): 2348 – 3997.
26. **Onwonga R.N.**, Lelei J.J., Friedel J.K. and Freyer B. 2014. Soil Nutrient Status and Maize (*Zea Mays* L.) Performance under Contrasting Legume-Maize Cropping Systems and Soils in Central Rift Valley, Kenya. *Journal of Agriculture and Environmental Sciences*. 3: 241-263.
27. *Risper Nyairo, Richard Onwonga, Kipruto Cherogony, Eike Luedeling* 2014. Applicability of Climate Analogues for Climate Change Adaptation Planning in Bugabira

Commune of Burundi. *Sustainable Agriculture Research* 3:46-62-10.5539/sar.v3n4p46 URL: <http://dx.doi.org/sar.v3n4p46>.

28. Ms Chepkemoi Janeth, Dr. **Richard N. Onwonga**, Dr. George N. Karuku and Dr. Vincent M. Kathumo 2014. Efficiency and interactive effects of Tillage Practices, Cropping Systems and Organic Inputs on Soil Moisture Retention in Semi-Arid Yatta Sub-County, Kenya. *Journal of Agriculture and Environmental Sciences* June 2014, Vol. 3, No. 2, pp. 145-156.
29. NL Namoi, **RN Onwonga**, GN Karuku, CM Onyango, VM Kathumo 2014. Influence of Selected Ecological Farming Practices on Soil Moisture Retention and Yield of Sorghum (*Sorghum bicolor* (L.) Moench) and Cassava (*Manihot esculanta* Crantz) in Semi-Arid Yatta Sub-County, Kenya. *Journal of Agricultural Science*; Vol. 6, No. 9; 2014 ISSN 1916-9752 E-ISSN 1916-9760.
30. Namoi N. L., **Onwonga, R. N.**, Onyango, C. M., . Karuku, G N., Kathumo, V M. (2014). Assessment of Soil Nutrient Balances in Organic Based Cassava (*Manihot esculenta* Crantz) and Sorghum (*Sorghum bicolor* (L.) Moench) Cropping Systems of Yatta Subcounty, Kenya. *American Journal of Experimental Agriculture* 4(12), PP. 1559-1578.
31. Lelei Joyce J; **Onwonga Richard N** (2014). White Lupin (*Lupinus albus* L. cv. Amiga) Increases Solubility of Minjingu Phosphate Rock, Phosphorus Balances and Maize Yields in Njoro Kenya. *Sustainable Agriculture Research* 3(3): 37-49.
32. Lelei, Joyce J. **Onwonga, Richard N.** and Macharia, Joseph K. (2014). Influence of Amendments Added to Acid Soils on Biochemical Properties, Nitrogen Uptake and Hybrid Maize Yields in Nakuru County, Kenya. *International Journal of Plant & Soil Science*, 3(5), pp.467-484.
33. Alemayehu, F., **Richard, O.**, James, K. and Wasonga, O. (2014). Assessment of Mangrove Cover Change and Biomass in Mida creek, Kenya. *Open Journal of Forestry*, 4, 398-413. doi: 10.4236/ojf.2014.44045.
34. Liavoga B. A., V. M. Kathumo, **R. N. Onwonga**, G. N. Karuku, C. M. Onyango (2014). Assessment of Trends in Land Cover and Crop Type Change Over Two Decades in Yatta Sub County, Kenya. *International Journal of Agriculture, Forestry and Fisheries*. Vol. 2, No. 3, 2014, pp. 46-52.
35. Kudra, A., Chemining'wa, G.A., **Onwonga, R.N.** and Sibuga, K.P. 2014. Influence of fertilizers on *Striga asiatica* reproduction and sorghum grain yield in Dodoma, Tanzania. *East African Agriculture and Forestry Journal* 80(3): 149-156.
36. Joyce J. Lelei and **Richard N. Onwonga** (2014). Soil Fungal and Bacterial Populations in White Lupin (*Lupinus albus*) - Maize (*Zea mays* L) Cropping System Amended With Minjingu Phosphate Rock. *Journal of Agriculture and Ecology Research International* 1: (1) 1-17.
37. Godfrey Nakitare Nambafu, **Richard Ndemo Onwonga**, George Njomo Karuku, Emmanuel Safaris Ariga, Bernard Vanlauwe and Kristina Roing de Nowina(2014). Knowledge, Attitude and Practices Used in the Control of *Striga* in Maize by Smallholder Farmers of Western Kenya. *Journal of Agricultural Science and Technology* 4 (3): 237-248.

38. JJ Lelei and **RN Onwonga** (2014). Response of microbial populations, soil available, P and yield of Lupin (*Lupinus albus* L cv. Amiga) to application of Minjingu phosphate rock-A green house study. *Int. J. Curr. Microbiol. App. Sci*, 2014 3(4): 671-684.
39. **Richard N. Onwonga**, Joyce J. Lelei, Joseph K. Macharia, 2013. Comparative Effects of Soil Amendments on Phosphorus Use and Agronomic Efficiencies of Two Maize Hybrids in Acidic Soils of Molo County, Kenya. Accepted for publication. *American Journal of Experimental Agriculture*, 3(4): 939-958, 2013.
40. Ibrahim Ahmed, **R. N. Onwonga**, D. M. Mburu and Y. A. Elhadi 2013. Evaluation of types and factors influencing adoption of rainwater harvesting techniques in Yatta district, Kenya. *International Journal of Education and Research*. Vol. 1 No. 6 June 2013 <http://www.ijern.com/journal/June-2013/17.pdf>.
41. Kudra Abdul, George N. Chemining'wa and **Richard N. Onwonga** 2012. Relationships between Agronomic Practices, Soil Chemical Characteristics and *Striga* Reproduction in Dryland Areas of Tanzania. *Journal of Agricultural Science and Technology A 2* (2012) 1134-1141.
42. Origa, O.L., C.K.K. Gachene, G. Kironchi and **R.N. Onwonga**. 2012. Effect of Different Supplemental Watering Regimes on Water Use Efficiency and Economic Returns of Onion and Tomato in Kibwezi District, Eastern Kenya. *East Africa Agricultural and Forestry Journal*, 78(2): 89-97.
43. Kirina T. Kitinya, **Richard N. Onwonga**, Cecilia Onyango, Joseph P. Mbuvi and Geoffrey Kironchi 2012. Climate Change and Variability: Farmers' Perception, Experience and Adaptation Strategies in Makueni County, Kenya, *Asian Journal of Agriculture and Rural Development*, Vol. 2, No. 3, pp. 411-421.
44. Cecilia Moraa Onyango, Jeremy Harbinson, Jasper Kathenya Imungi, **Richard Ndemo Onwonga**, Olaf van Kooten 2012. Effect of Nitrogen Source, Crop Maturity Stage and Storage Conditions on Phenolics and Oxalate Contents in Vegetable Amaranth (*Amaranthus hypochondriacus*). *Journal of Agricultural Science*, Vol 4, No 7 (2012).
45. Ricard O. Nyankanga, **Richard N. Onwonga**, Francis S. Wekesa, Dorothy Nakimbugwe, Dorothy Masinde, and Johnny Mugisha, 2012. Effect of Inorganic and Organic Fertilizers on the Performance and Profitability of Grain Amaranth (*Amaranthus caudatus* L.) in Western Kenya. *Journal of Agricultural Science* Vol. 4, No. 1; 223-232.
46. Jeiran Eyvazi, Hamid Irannejad, Mohammad Hussein Kianmehr¹, Mohammad Esmaeili, Qolam Ali Akbari¹ & **Richard N. Onwonga** 2010. The effect of Pellet fertilizer application on Wheat Yield and its Components. *International Research Journal of Plant Science* Vol. 1(6) pp. 163-171. Available online <http://www.interestjournals.org/IRJPS>.
47. **Richard N. Onwonga**, Joyce J. Lelei, J.J. and Benson B. Mochoge, 2010. Mineral Nitrogen and Microbial Biomass Dynamics under Different Acid Soil Management Practices for Maize Production. *Journal of Agriculture Sciences*, Vol.2, No.1. PP 16-30.
48. **Onwonga, R.N.**, Lelei, J.J, Freyer, B, Friedel, J.K and Mwonga, S.M. 2010. Short Rain Season Fallow: Window of Opportunity for Integrating Improved Fallow Legumes into

the Farming System of Molo District, Kenya. *Journal of Agriculture and Biological Sciences*, Vol. 5 No. 2. PP.

49. Lelei, J. J., **Onwonga, R. N.**, and Freyer, B. 2009. Organic based nutrient management strategies: Effect on soil nutrient availability and maize (*Zea mays* L.) performance in Njoro, Kenya. *African Journal of Agricultural Research* Vol. 4 (2), pp. 092-099. Available online at <http://www.academicjournals.org/AJAR>.
50. **Onwonga, R.N.**, Lelei, J.J., Freyer, B., Friedel, J.K., Mwonga, S.M., and Wandhawa P. 2008. Low Cost Technologies for Enhancing N and P Availability and Maize (*Zea mays* L.) Performance on Acid Soils. *World Journal of Agricultural Sciences* 4 (S): 862-873.
51. Lelei, J. J., **Onwonga, R. N.** and Mochoge, B. O. 2006. Interactive Effects of Lime, Manure, Urea and TSP on Maize (*Zea Mays* L.) Yield and Nutrient Uptake in an Acid Mollic Andosol of Molo, Kenya. *Egerton journal: science and technology series*. Volume VI. No. 2, 2006.
52. Lelei, J.J., Mochoge B.E, and **Onwonga, R.N.** 2000. Effect of lime, urea and triple super phosphate on nitrogen and phosphorus mineralization in an acid soil during incubation. *African crop Science Journal* Vol.8. No.3, pp 329-338.

(ii) Books and Book Chapters

1. Onwonga R, Sibuga KP, Ndukhu OH, Sigsgaard L, Saria A, Shechambo L, Montoro M MM, Chepkoech C, Genga Q, Wahome R, Halberg N, and Høgh-Jensen H 2017. Organic Crop Production Research for Supporting Smallholder Farmers of East Africa. Improving organic crop cultivation (Ed. Prof. Ulrich Köpke) Burleigh Dodds Science Publishing (submitted)
2. Kirina T., **R. Onwonga** and G. Kironchi (2013). Modeling Potential Impact of Climate Change in Semiarid Areas: A Simulation of Sorghum and Cowpea Performance using APSIM Model. Lambart Academic. Publishing. ISBN: 978-3-31533-6.
3. J.J. Lelei **R.N. Onwonga** B. Freyer. The Effect of Organic-Based Nutrient Management Strategies on Soil Nutrient Availability and Maize Performance in Njoro, Kenya, 2011. In: A. Bationo, B. Waswa, J.M. Okeyo, F. Maina, J.M. Kihara (Eds.) *Innovations as Key to the Green Revolution in Africa: Exploring the Scientific Facts* (2011). Springer, pp 299 - 309. ISBN 978-90-481-2541-8.
4. Gachene CKK, Baru MW, Gathaara V and **Onwonga R.** 2015. Factors that influence Adoption of Soil and Water Conservation Technologies at Kathekakai Location, Machakos County. In: Zeinabu Khalifm Charles Gachene, Patric Gichere, David Mwehia Mburu and Christopher Gatama Gakahu (Eds). *Sustainable Land Management in Drylands of Kenya: Improving Land Productivity through Participatory Research and Technology Transfer*. PP 85-106.

(iii) Papers presented in workshops/conferences

1. **Richard Onwonga** , Caroline Chepkoech¹, Quinter Genga, Raphael Wahome Henning Jensen 2017. Towards Enhanced Soil and Kale (*Brassica Oleracea*) Productivity through Application of Organic fertilizers and Integration of legumes in farming systems of Kabete Sub-County, Kenya Paper Presented at the Organic World Congress, New Delhi, India ,November 9-11, 2017. Scientific Conference “innovative Research for Organic Agriculture

2. Carola Strassner, Susanne Bügel, David Gould, Jostein Hertwig, Johannes Kahl, Denis Lairon, Flavio Paoletti, Ewa Rembialkowska, Raymond Auerbach, Jim Bingen, Marija Bodroza, Perumal Karuppan, Emmanuel Kwesi Boon, Phillip Dietrich, Bernhard Freyer, Sebastian Kretschmer, Zerihun Nigussie, Victor Olowe and **Richard Onwonga**. 2017. The Organic Food System Program (OFSP): Organic food systems as models and living laboratories for transformation processes towards sustainable food systems. 1st Global Conference of the 10YFP Sustainable Food Systems Programme Sustainable Food Systems for All *Catalyzing Change through Multi-Stakeholder Action. 21–23 June 2017 Pretoria, South Africa*
3. **Richard N. Onwonga**, Caroline Chepkoech, R.G. Wahome, Henning Høgh Jensen, Bernhard Freyer 2017. “Synchronising Legume Residue Nutrient Release with Kale (*Brassica oleracea* var. *acephala*) Uptake in a Nitisol of Kabete, Kenya” Tropentag 2017 Conference held in Bonn, Germany, from 20 – 22 September 2017.
4. Nepomuscene Ntukamazina, **Richard N. Onwonga**, Rolf Sommer, John Mburu, Jean C. Rubyogo, Clare M. Mukankusi, Rahab Kariuki 2016. Index-based Agricultural Insurance Products: Challenges, Opportunities and Prospects for Uptake in Sub-Sahara Africa. Pan-African Grain Legume and World Cowpea Conference. 28 February to 4 March 2016 held at AVANI Victoria Falls Resort (formerly the Zambezi Sun Hotel) in Livingstone, Zambia.
5. Kitinya Kirina Thomas, **Onwonga Richard N.**, Kironchi Geoffrey, Mbuvi Joseph P. Modeling potential impact of climate change on sorghum and cowpea yields in semi-arid areas of Kenya. Climate Smart Agriculture 2015. Global Science Conference. March 16-18, 2015. Le Corum, Montpellier, France.

The 3rd African Organic Conference Nigeria: Achieving Social and Economic Development through Ecological and Organic Agricultural Alternatives. 5-9 October 2015. Sheraton Hotel and Towers, Lagos, Nigeria

6. **Onwonga R.N.**, Lelei J.J. Namoi N.L. 2015. Effectiveness of Agroecological Intensification Techniques in Enhancing Soil Nutrient Status, Moisture Content, and Crop Productivity in Semi-Arid Lands of Kenya.
 7. **Onwonga, N. R.**, Genga Q, Wahome Jensen, H. H 2015. Application of Rock Phosphate, FYM and Chickpea (*Cicer arietinum* L.) Integration Enhances Soil Nutrient Balances and Kale (*Brassica Oleracea*) Yield in Kabete Sub-County, Kenya
 8. Sibusisiwe Caroline Kamanga, **Richard Onwonga**, Bernard Vanlauwe 2014. Effect of Mavuno and Manure Fertilizer Applied Singly or in Combination on Soil Properties, Striga Weed Density and Maize Yield. 20th World Congress of Soil Science, 2014.6, 436-436
- Papers Presented at the 27th Soil Science Society of East Africa and 6th Africa Soil Science Society Conference Held from 21st -25th October 2013 - Hotel Cathay, Nakuru, Kenya
9. Kamanga C.S., **Onwonga R.N** and Vanlauwe. Effect of mavuno and farmyard manure fertilizer application on soil properties in western Kenya.
 10. Lelei J.J., and **Onwonga R.N**. Interactive effects of soil amendments on soil exchangeable aluminium and ph of an acidic mollic andosol.

11. Nambafu G N., **Onwonga R.N.**, Ariga E.S., Karuku G., Vanlauwe B. and Nowina K.R. Effects of maize variety and nitrogen fertilizer on striga parasitism and maize yield in western Kenya

Papers Presented at the 8th Egerton University International Conference 26th - 28th March, 2014

12. Templer, N.A., **Onwonga, R.N.**, Lelei, J.J., Toroitich, F. 2014. Effect of minjingu rock phosphate and cropping systems on soil pH, available phosphorus and nitrogen at Kabete field station University of Nairobi.
13. Chepkemoi, J., **Onwonga, R.N.**, Karuku, G.N., Kathumo, V.M. 2014. Effect of tillage practices, cropping systems and organic inputs on soil moisture content in Yatta sub-County Kenya.
14. Madegwa Y.M., **Onwonga, R.N.**, Shibairo, S.I, Nyongesa, O. 2014. Constraints, status and opportunities in finger millet production in Lower, Eastern Kenya.
15. Ndukhu, K., **Onwonga, R.**, Genga, Q. 2014. Experiences challenges, coping and adaptation strategies to climate change and variability among small holder organic vegetable farmers of central Kenya.
16. Namoi, N.L., **Onwonga, R.N.**, Karuku, G.N., Kathumo, V.M., Onyango, C.M., 2014. Assessment of soil nutrient balances in organic based cassava (*Manihot esculenta* Crantz) and sorghum (*sorghum bicolor* (L.) Moench) cropping systems in Kitui sub-County Kenya.

Papers presented at the Integrated Soil Fertility Management in Africa: From Microbes to Market. Safari Park Hotel, 22 to 26 October 2012, Nairobi, Kenya

17. **Richard Onwonga** and Joyce Lelei. Nitrogen content and its uptake by two maize hybrids in soils amended with lime, rock phosphate.
18. Margarida Simbine, Fredrick Bajjukya and **Richard Onwonga**. Effect of planting density on yield of a soybean-maize intercrop in Western Kenya.
19. *Godfrey Nambafu*, Bernard Vanlauwe, Kristina Roing De Nowina and **Richard Onwonga**. Knowledge, attitude and practices of striga control in maize producing farms among small-scale farmers in Western Kenya.
20. Sibusisiwe Caroline Kamanga, Bernard Vanlauwe and **Richard Onwonga**. Effect of long term fertilizer application on striga density. *Ms Sibusisiwe Kamanga*

Papers presented at the 2nd African Organic Conference 2012 May 2-4, 2012 In Lusaka, Zambia

21. Ndukhu, O. H, **Onwonga, R.N.** Wahome, R.G. Jensen, H.H. 2012: Climate Change and Variability: experience, coping and adaptation Strategies among smallholder organic farmers of central Kenya.
 22. Quintar Genga, **Richard Onwonga** and Henning Jensen 2012. Challenges Faced By Smallholder Organic Farmers of the Central and Rift Valley Province of Kenya.
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23. M. W. Baaru, C. K. K. Gachene, **R. N. Onwonga** and J. P. Mbuvi 2011. Effect of vegetative macro contour lines on soil moisture conservation and crop performance in Machakos district, Kenya Paper presented at the **10th African Crop Science Society Conference** —From Soil to Soul: Crop Production for Improved African Livelihoods and a Better

Environment for Future Generations. Centro Internacional de Conferências Joaquim Chissano Maputo – Mozambique 10th – 13th October 2011.

Papers presented at the RUFORUM Biannual conference: Building capacity for improved food and livelihood security in Africa; 20 – 24 September, 2010; Imperial Resort Beach Hotel, Entebbe, Uganda;

24. **Richard N. Onwonga**, Joseph P Mbuvi and Geoffrey Kironchi, 2010. Modelling the potential impact of climate change on sorghum (*Sorghum bicolor*) and cowpea (*Vigna unguiculata*) production in semi-arid areas of Kenya using the agricultural production systems simulator (APSIM).
 25. Baaru, M.W., Gachene, C.K.K., **Onwonga, R.N.**, Mbuvi, J. P. and Gathaara, V. 2010. Assessment of changes in natural resources: A participatory approach.
 26. Kudra, A., Chemining'wa, G.N., Sibuga, K.P. and **Onwonga, R.N.** 2010. Influence of soil fertility management on *Striga* seed bank dynamics and grain yield of sorghum in semi arid areas.
 27. Moyo, R., Kinama, J.M., Nyagumbo, I., **Onwonga, R.** and Keter, J. 2020. Climate variability and Tillage practices: Effect on soil moisture, carbon dynamics and crop productivity in semi-arid Zimbabwe.
 28. Thomas K. Kirina, **Richard N. Onwonga**, Joseph P Mbuvi and Geoffrey Kironchi , 2010. Climate change: Farmers' perception, experience and adaptation strategies in Makueni County, Kenya.
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29. Joyce J. Lelei and **Richard N. Onwonga** 2010. Lime, Minjingu Rock Phosphate and Manure Effects on Soil Biochemical Properties and Yield of Maize Hybrid Varieties in Nakuru County. 1st Alexander Von Humboldt Alumni Kenyan Kolleg: Synergy and Networking to enhance Research and Development” Meridian Court Hotel, Nairobi, Kenya 24th – 26th November 2010.
 30. Judith S. Mbau and **Richard N. Onwonga** 2009. Desertification in Kenya: Challenges and Management options. 5th Conference of the Africa Soil Science Society. Conference Theme: Soils and New Challenges for sustainable Development in Africa. 22 - 28 November 2009, Yaoundé – Cameroon.
 31. **Richard N. Onwonga** and Joyce J. Lelei 2009. Limitations and Opportunities for Combating Land Degradation in Agricultural Fields of Kenya. 5th Conference of the Africa Soil Science Society. Conference Theme: Soils and New Challenges for sustainable Development in Africa. 22 - 28 November 2009, Yaoundé – Cameroon.
 32. **Richard N. Onwonga**, Bernhard Freyer and Joyce J. Lelei (2008) Traditional soil fertility management strategies: Do they conform to recommendations in organic farming? A case study of the smallholder farmers of the Central Rift Valley Province of Kenya, In. "Global Issues, Paddock Action". Proceedings of the 14th Australian Agronomy Conference, 21-25 September 2008, Adelaide, South Australia. Australian Society of Agronomy ISBN: 1 920842 34 9.
 33. J.J. Lelei, B. Freyer and **R.N. Onwonga**, 2008. Nutrient availability and maize performance on acid soil: Effect of legume residue, green manure and amendments on soil pH. Third Annual Research Week and International Conference. Theme: *Harnessing Scientific*

Knowledge for National Development. 16th - 18th September 2008. Egerton University, Agriculture Resources Centre, Njoro, Kenya.

34. **Onwonga, R.**, Freyer, B., Wenzel, W., Lelei, J. 2007: Agricultural Biodiversity: Lessons from the Smallholder Traditional Farming Systems of the Central Rift Valley Province of Kenya. In: Tielkes, E. (Eds.), Tropentag 2007 - Utilization of diversity in land use systems: Sustainable and organic approaches to meet human needs. Witzhausen, 217-217.
35. J. J. Lelei, **R.N. Onwonga**, B. Freyer 2007. The effect of organic based nutrient management strategies on soil nutrient availability and maize performance in Njoro, Kenya. Innovations as key to the green Revolution in Africa: Exploring the Scientific Facts, Sept 17-26, 2007, Arusha
36. Lelei J.J., Freyer, B., **Onwonga, R.N.**, Fridel, J.K., and Mwonga, S.M. 2007. Appropriate and Sustainable Soil Management Practices for Enhancing Soil Nitrogen and Phosphorus Availability and Maize Performance under Sole and Intercropping Systems in Njoro, Kenya. Research for National Development. July 16-20, Agriculture Resource Centre, Njoro, Kenya.
37. **Richard Onwonga** and Bernhard Freyer, 2006. Impact of Traditional Farming Practices on Nutrient Balances in Smallholder Farming Systems of Nakuru District, Kenya. Conference on "Prosperity and Poverty in a Globalized World — Challenges for Agricultural Research" Tropentag, October 11-13, 2006, Bonn.
38. **Onwonga R.N.** and Freyer, B, 2005. Biodiversity in smallholder farms of Nakuru District, Kenya. 17th International Botanical Congress, Europe Austria Center Vienna, 17 – 23 July 2005.
39. **Onwonga, R.N.** and Freyer, B. 2004. Organic resource flows and nutrient balances in smallholder farming systems of Nakuru district, Kenya. Sustain Life, Secure Survival II. socially and environmentally responsible Agribusiness. Prague, 22-25 September 2004.

D: SHORT COURSES/CONFERENCES ATTENDED

1. Integrated Organic Agriculture Training and Research for sustainable agricultural productivity and Food Security (TReSAProFS) May – July 2017
2. Capacity Development on Measurement of Greenhouse gases. Held at KALRO-FCRI – Muguga (Kenya), from March 21-25, 2016.
3. The 3rd Hands-on Soil Infrared Spectroscopy Training Course: Getting the best out of light. 15th – 17th March, 2016 World Agroforestry Centre (ICRAF) Nairobi, Kenya.
4. Training on application of nuclear techniques at the Ghana Atomic Energy commission (GAEC), Accra Ghana November 23 to December 4, 2015.
5. Training on WOFOST crop growth simulation model and its graphical user interface WOFOST Control Center (WCC). Held at Clinton Climate Foundation (Timau Plaza building) 2-4th February, 2015.
6. Capacity Development for Farm Management Strategies to Improve Crop-Water Productivity Using AquaCrop. KALRO-Kabete, Nairobi 24-28 November, 2014.
7. Improving and Internationalizing Universities. June 10-12, 2014. Kasangati Resort Center Limited, Kampala-Uganda.

8. AGRA-wageningen ur workshop University of Nairobi Competence & skills training for PhD supervisors and established scientists Rise to the challenge (University of Nairobi, Faculty of Agriculture, 15-17 January 2014).
9. GIS and Spatial Analysis with a focus on Raster Analysis conducted at College of Agriculture And Veterinary Sciences, University of Nairobi, 18th March – 2nrdMarch, 2013.
10. Agent Based Modeling in Ecological and Social Settings conducted at College of Agriculture And Veterinary Sciences, University Of Nairobi, 12th March – 23rd March, 2012.
11. Scientific Data Management Training of Trainers Course for ECSA NARS, Lecturers and Scientists (15 – 27 August 2010).
12. Data flow workshop for East and Horn of Africa Community of Practice Held at Egerton University 1-6 February, 2010.
13. Climate Change and Transboundary Animal Diseases, 13-16 October, 2009, Imperial Resort Beach Hotel in Entebbe, Uganda.
14. International Course on: Combating Desertification: Afforestation in Arid and Semi Arid Zones for Professionals from African Countries held in Israel (CINADCO's International Training Centre at Kibbutz Hotel Shefayim) on 3.12 – 19.12.2008.
15. Drylands, Deserts and Desertification conference December 14-17, 2008, Sade Boqer Campus, Israel.
16. "Conceptualization and Presentation of winning proposals" 2008. IFS/VLIR/UoN training course on "conceptualization and Presentation of winning proposals" held at the University of Nairobi, Kenya 22nd – 27th, 2008.

E: GRANTS/NEGOTIATED MEMORANDUM OF UNDERSTANDING

i] Principle Investigator

Donor/Funder

1. RUFORUM

Modelling the potential impact of climate change on sorghum (*Sorghum bicolor*) and cowpea (*Vigna unguiculata*) production in semi-arid areas of Kenya using the agricultural production systems simulator (APSIM)

2. McKnight Foundation

Towards Increased Agricultural Productivity and Food Security in East Africa through Capacity building in Agroecological Intensification.

3. AGRA

Capacity Building in Integrated Soil Fertility Management for enhanced agricultural productivity and food security in eastern and southern Africa

ii] Co-Researcher

4. Egerton University

Response of maize to soil amendments on acid soils of the central Rift Valley Province of Kenya.

5. **DANIDA**

Productivity and Growth in Organic Value-chains (ProGrOV)

6. **RUFORUM**

Soil conservation practices as climate change adaptation strategies in semi-arid districts of Kenya and Uganda

7. **RUFORUM**

*Enhancing phosphorus release from rock phosphate using white Lupin (*Lupinus albus* l. Cv. Amiga) and chickpea (*Cicer arietinum* l.)*

8. **RUFORUM**

Screening finger millet varieties for adaptability to drought prone ecological regions of eastern Kenya as a strategy to combat food insecurity and climate change

iii] Current Research Project(s)

9. *National Academy of Sciences*

NAS-PEER PROJECT: Using integrated modeling framework to evaluate the impact of human-induced land use/land cover change on carbon dynamics in Upper Ewaso Ngiro River Basin, Kenya.

10. Department of Climate Change, Austria Government

System for Land Based Emission Estimation for Kenya (SLEEK) Scholarship training (PhD and MSc level) Programme

11. Access Agriculture

Supporting MSc Research on Video Mediated Learning Research Projects

F: SUPERVISION

a) Internal Supervision

ij PhD

Completed

1. *Baaru Mary Wamuyu September 2008-2011: Vegetative macro contour lines: Effect on soil properties, crop performance and terrace development in Machakos district, Kenya*
2. *Kudra Abdul September 2008-2011: Influence of soil fertility management on *Striga* seed bank dynamics and grain yield of sorghum in semi-arid areas.*
3. *Haggai Nduku-2012-2015: Crop growth and soil nutrient dynamics under different cropping systems and organic inputs in central Kenya.*
4. *Fikir Alemayehu: Effect of land use change on shoreline erosion and mangrove dynamics in Watamu/Mida creek, Kenya.*

5. Paul Anguira – 2012-2015: Growth and yield response of Sesame (sesame indicum L.) to crop residue and fertilizer application in North Eastern Uganda.

Continuing

6. Samuel Mwangi 2013-2016: Influence of Selected Land Use Practices on Soil Quality in Agro-pastoral Semi-Arid Karamoja-Uganda.
7. Nepomuscene Ntukamazina 2015-2018: Parameterization, calibration and validation of a crop insurance models for estimating bean (*phaseolus vulgaris l.*) Performance under selected environmental stresses and production risks.
8. Janeth Chepkemai 2015-2018: Modelling of SOC Stocks In Wooded Grassland of Riftvalley, Kenya: Linking Rothc Model to Gis Databases.
9. Stephen Kiama 2015-2018: Using integrated modeling framework to evaluate the impact of human-induced land use/land cover change on carbon dynamics in Upper Ewaso Ngiro River Basin, Kenya.
10. Yvonne Madewa (2016-2019) Modelling Effect of Finger Millet Management Practices on Green House Gas Emissions in Kenya

ii] MSc

Completed

1. Francis Simiyu Wekesa, October 2007-2010: Response of grain amaranth (*amaranthus caudatus l.*) to fertilizer application and intercropping with maize and beans in Kisumu West District, Kenya.
2. Richard M. Njuguna 2007-2010: Investigating the Effect of Road Design on Gully Erosion: A Case Study of the Rural Access Roads of Embu District, Kenya.
3. Okoth Linus Origa October, 2008-2011: Effects of supplementary irrigation on Growth and Yield of Tomatoes (*Solanum lycopersicum*) and Onions (*Allium cepa*) in semi-arid Eastern Kenya.
4. Thoma Kirina Kitinya – 2009-2011: Modelling the potential impact of climate change on sorghum growth and nutrient dynamics in Makueni, County.
5. Simbine Magarida 2010-2012: Effect of varying soybean planting density on maize (*Zea Mays*) and soybean (*glycine max*) yields in a maize- soybean intercrop system in western Kenya.
6. Nambafu Godfrey - 2010-2012: Efficacy of Farmers' Soil Fertility Management Practices in the control of striga hermonthica: A case study of smallholder farmers of western Kenya.
7. Kamanga Carolyne - 2010-2012: Soil Fertility Gradients: Effect of Fertilizer Application on Soil Properties, Striga Density and Maize Response and Yield to Fertilizer.
8. Agesa Beverly - 2010-2012: Modelling effects of climate change on growth and development of Sorghum and Cassava in Yatta District, Kenya.
9. Namoi Nictor 2011-2013: Influence of agroecological intensification techniques on soil nutrient status, moisture and yields of sorghum (*sorghum bicol L. Moench*) and cassava

(*maniholt esculanta crantz*) in yatta district, Kenya.

10. Quinta Achola 2010-2012: Organic based soil fertility management strategies for production of marketable quality kales.
11. Risper Nyairo 2012-2014: Applicability of climate analogues for climate change adaptation planning in Bugabira Commune, Burundi.
12. Janeth Chepkemoi - 2012-2014: Influence Of Tillage Practices and Organic Cropping Systems on Soil Moisture, Nutrients and Yield of Sweet Potatoes (*Ipomea Batatas* L.Lam) and Sorghum (*Sorghum Bicolor L.*) in Yatta Sub County, Kenya.
13. Oliver Nyongesa - 2012-2014: screening finger millet [*eleusine coracana* (l.) Gaertn.] Genotypes for drought adaptability and nutritional factors under different soil fertility regimes in eastern kenya.
14. Madewa Yvonnee 2012-2014: *Modelling growth development and nutrient dynamics of finger millet (eleusine corocona) in semi-arid eastern Kenya using the agricultural production systems simulator (APSIM) model.*
15. Miriam Muli (submitted 2014) 2012-2014: Simulation of Soil Moisture, Sorghum (*Sorghum bicolor L.*) and Sweet potato (*Ipomea batatas L.lam*) Yields using CropSyst Model in Matuu Sub-County, Kenya-.
16. Caroline Chepkoech 2013-2015: Effectiveness of Legume Integration and Application of Organic Fertilizers on Soil Available N, P and Kale Yields in Kabete, Kenya.
17. Noel Templer (submitted – 2014) - 2012-2014: enhancing phosphorous release from minjingu rock phosphate through integration of legumes in maize based cropping systems of Kabete, Kenya-.
18. Fancy Chepkoech (submitted 2015) 2012-2015: Analysis of Effectiveness of Participatory Video in Dissemination of Agricultural Information among Smallholder Farmers of Bungoma County, Kenya-.
19. Ruth Sitienei (2013-2016): Monitoring Changes In Soil Organic Carbon, Moisture Content, Nutrient Balances and Maize Yield in A Legume-Maize (*Zea Mays L.*) Cropping Association in Nairobi County, Kenya-.
20. Joan Muhiaki (2014-2016) Quantifying Water Demand, Supplies and Modelling Water Use Efficient Practices in Mbagathi Sub-Catchment Using WEAP model.
21. Ann Omwoyo (2015 – 2017) Modelling the Effects of Green House Gas Induced Climate Change on River Ewaso Ngiro's Discharge –.

Continuing

22. Hillary Rotich (2014-2015) Influence of different grazing management practices on soil organic carbon and greenhouse gas emissions in semi- arid grasslands of Makueni County.
23. Collins Ouma (2015-2017) Effect of Enclosure Management Systems on Soil Carbon and Greenhouse gas Emission in West Pokot County, Kenya.
24. Angela Gitau (2015-2017) Effects of Grazing Regimes on Soil Carbon Fractions,

Microbial Diversity and Greenhouse Gas Emissions in a Kenyan Semi-Arid Rangeland -.

25. Marietta Gitau (2015-2017) Effects of Conventional and Organic Farming Systems on Runoff, Sediment Yield, Nutrient Loss and Soil Moisture Content in Kandara, Murang'a County.
26. Fredrick Ndukwe Masambaya (2015-2017) Assessing The Vulnerability Of Maize Production To Climate Change In Rift Valley's Major Maize Producing Counties Using The Indicator Approach.

b) External supervision

27. Ibrahim Ahmed Ibrahim (Kenyatta University, 2011-2013) Investigation of Rainwater Harvesting Techniques in Yatta District, Kenya – MSc -.
28. Ann Njeri (2015-2018) Quantifying Greenhouse Gas emissions and Carbon stocks in Maize based cropping systems of Siaya County, Kenya – Kenyatta University – PhD -.
29. Humprey Agevi (2014-2017): Modelling the influence of carbon stocks and stock changes in agroforestry practices in Western Kenya – PhD -.

G: INTERNAL AND EXTERNAL THESIS EXAMINATION

(i) Internal Examiner

MSc.

1. Mr. Amos wanjala wawire (2013): Awareness and use of Kenya Agricultural Commodity Exchange (KACE) information services: The case study of smallholder farmers in Bungoma County, Western Kenya.
2. Ms. Elizabeth Okwuosa (2011): "Effect of Land Use System on Soil Carbon and Nutrient Stock in Elgon Ecosystem, Kenya.
3. Mr. Basweti C. Ntabo (2009): influence of soil organic matter quality on response of soil organic matter decomposition to variation in soil temperature and moisture.
4. Lutta Inyende Alphayo (2015): Effects of Holistic Grazing Management on Soil Physico-Chemical Properties and Hrtbaceous Vegetation Production in Naibunga Conservancy, Laikipia County, Kenya.
5. Benedict Aloo Mbindah (2017). Evaluation Of Integrated Soil Fertility Management on Bulb Onion (*Allium Cepa L.*) Yields and Predicting Fututure Onion Yields Under Climate Change Scenarios in Ugenya Sub-County, Kenya

PhD

6. David Lelei (2015): Influence of Indigenous Trees on Soil Macrofauna and Soil Organic Matter Dynamics in Tropical Agricultural Landscapes.

(ii) External Examiner – Topics Examined

Kenyatta University

1. (2013). Assessment of Water Demand Management Practices And Their Effects On Water Usage In Households Of Ruiru Municipality – MSc.
2. (2014). Analysis of Limiting Factors in Soil-Water Management Practices of Smallholder Farmers in Magamba sub-Catchment of Lushoto District, Tanzania – MSc.
3. (2014) Analysis of Run-off and Plant nutrient drain from four vegetation types in south Kinangop Forest (Abardare Catchment) Nyandarua County – MSc.
4. (2014) Effects of varietal Differences, plant spacing and weeding regimes on weed density and yields of upland Rice in Uganda – MSc.
5. (2015). Effect of *B. Japonicum* on Soyabean Nodulation and Indigeneous AMF Colonization and their Survival in Walungu Peat under Different Storage conditions – MSc.
6. (2015). Water Stress Effect on Antioxidant Activity and Phenolic Content of African Nightshades and their distribution in Kisii and Siaya Counties of Kenya – MSc.
7. (2015). Seed Quality of Soybean (*Glycine Max (L) Merrill*) Genotypes under varying Storage and Priming Methods, Mother Plant Nutrition Profiles and Agroecologies in Kenya – PhD.
8. (2016). Rhizobium Inoculation Combined with Organic and Inorganic Fertilizer Amendments Effects on Nitrogen Fixation and Yields of Bean in South Kivu, Democratic Republic of Congo – MSc.
9. (2016) – Effect of NP Fertilizers and Manure Application on Maize-Yields, and Nitrogen Mineralization in the Luvisols of Katumani-Machakos County - MSc

Egerton

10. (2015). Effect of Crop Rotation on Soil Bacterial Wilt (*ralstonia Solanacearun*) and Potato (*Solonum tuberosum*) yield – MSc.
11. (2015): Effect of P-Fortified Manure on Growth and Yield of Maize in Smallholder Mixed Farming System of South Nandi District

Masinde Muliro University of Science and Technology

12. (2016): Effective Mitigation And Response to Drought in Makueni County, Kenya – PhD.
13. (2016): Farmers Coping Strategies to Drought and their Implications to Agricultural Production in Machakos County, Kenya – PhD

H: FACULTY/DEPARTMENTAL RESPONSIBILITIES

Teaching

1. *MSc MSc/PhD*

ALM 604: Land degradation and Rehabilitation, AFS 607: Crop Production and Food Safety; ALM 604: Nutrient Cycling, Monitoring and Modelling; ALM 607: Integrated Soil

Fertility Management and Nutrient Cycling in Agroecosystems; ALM 601: Soil and Water Relations; AEM 602: Evergreen Agriculture and Organic Farming

2. *BSc.*

AEM 204 Principles and practice of Organic Farming/Agriculture; ASS 407 Recycling and Bioconversion of Org. Wastes; AEM 401: Modelling of Agroecosystems; ASS 403: Land Degradation and Management of Problematic Soils; ASS 404: Soil Erosion Assessment and its Impacts on Land Productivity

Faculty Committees

1. Member Faculty Environmental Committee – 2011 to date
2. Convener Seminars and Special projects – 2011 to date
3. Ag. Chairman - Faculty of Agriculture ROFORUM committee - 2009
4. Member Faculty Timetabling and Examination Committee – 2008 - 2010
5. Convener Postgraduate/special projects presentations – Department of LARMAT – 2008- to date

Others

6. Coordinator – International Training Course in Organic Agriculture (ITCOA) - Since 2008

J: AWARDS:

1. 2017: Ernst Mach Follow-up Grant (EZA) to undertake a short Post Doc Course on Integrated Organic Agriculture Training and Research for sustainable agricultural productivity and Food Security (TReSAProFS)
2. 2015: International Atomic Energy Agency Fellowship to undertake Nuclear techniques studies at Ghana Atomic Energy Commission
3. 2003: OAED scholarship to undertake PhD. studies at the BOKU, Austria.
4. 1995: Egerton University Scholarship to undertake Masters Studies (MSc. Soil Science) at the Department of Soil Science, Egerton University.
5. 1990: Government of Kenya Scholarship to undertake undergraduate studies (BSc. Agriculture Education and Extension) at the Egerton University

K: MEMBERSHIP TO PROFESSIONAL BODIES

1. African Network for Soil Biology and Fertility (AfNet)
2. Soil Science Society of East Africa
3. Kenya Organic Agriculture Network
4. African Organic Agriculture Network

L: CONSULTANCIES AND OUTREACH

1. 2012-2013 Conducted curriculum analysis: a case study of AGRA supported delivery universities for the alliance for a green revolution in africa (AGRA).
2. 2011-2012: Conducted a synthesis on technologies that are suitable to address productivity constraints in the horticulture value chain (Fruits and vegetables) in Kenya. Client: Regional Strategic Analysis and Knowledge support system (ReSAKSS).
3. 2015: Development of training manual and training on Agricultural Biodiversity: Client DVL – Plant.
4. 2012-to date Community Outreach programme in Katangi, Matuu, and Ikobme on production of indigenous crops – sorghum, cassava, pigeon peas and sweet potatoes.

Others

5. Agriculture Sector Experts views to explore the implications of Kenya's first Nationally Determined Contribution (NDC) on the agricultural sector. 2017
6. Contribution to Kenya Climate-Smart Agriculture Strategy 2016-2025, for the Ministry of Agriculture, Livestock and Fisheries exercise conducted in 2016 and 2017– supported by UNCTAD

M: REFEREES

1. PROF. GEOFFREY KIRONCHI

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Department of Land Resource Management
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Resource Management and Agricultural
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2. PROF. SHELLEMIA KEYA

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7. PROF. BENSON O. MOCHOGE

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Signature..... Date.....