

GODFREY WAFULA NETONDO

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EDUCATION

- PhD-2001-Maseno University
- MSc 1994-University of Nairobi
- BSc 1988-University of Nairobi
- KACE 1983-Friends School Kamusinga
- KCE 1981-Friends School Kamusinga
- CPE 1977-Kimilili FYM Primary School

RESEARCH EXPERIENCE

I have carried out research in the following areas;

- Salt tolerance in sorghum and bambara groundnuts
- Sustainable production, yields and utilization of bambara groundnuts in western Kenya.
- Ecophysiology of bamboo introduced in tobacco growing areas of western Kenya.
- Effects of sugar cane production on environmental quality and community livelihood in the lake Victoria basin using integrated ecosystem and corporate social responsibility approaches”

TEACHING EXPERIENCE

I have a teaching experience of 28 years at undergraduate and postgraduate levels. The courses I have taught include:

Undergraduate Courses

- ❖ Plant Structure and Function
- ❖ Fundamentals of Ecology and conservation
- ❖ Plant Mineral Nutrition
- ❖ Introductory Biochemistry and Genetics

- ❖ Plant Growth and Development
- ❖ Seed Science and Technology
- ❖ Ecophysiology
- ❖ Plant Ecology
- ❖ Plant Biochemistry and Physiology

M.Sc Courses

- ❖ Methods and Techniques in Botany
- ❖ Photosynthesis
- ❖ Applied Plant Ecology
- ❖ Plant Water Relations
- ❖ Plant physiological Ecology
- ❖ Community Structure and Composition
- ❖ Secondary Plant Metabolism
- ❖ Wetland Ecology
- ❖ Marine Littoral Communities
- ❖ Special Topics

HONORS AND AWARDS

- Government of Kenya Scholarship/University 1985-1988.
- DAAD/University of Nairobi Scholarship- 1988 - 1990. .
- DAAD In-Country Scholarship -1994-1997.
- DAAD Research visit Scholarship - October 1997- March 1998. University of Bayreuth, Germany.
- DAAD Post-Doc Scholarship. June 2002- November 2002. Institute of Botany and Plant Physiology, Justus-Liebig University, Germany.

PROFESSIONAL MEMBERSHIP

Member, Kenya National Academy of Sciences (MN 178)
Member, Kenya DAAD Scholars Association

SKILLS AND TRAINING

I have acquired various skills through experience and training. These include; proposal development, execution of research, operation of various research equipment, data analysis

and interpretation and writing of papers for publication. I also skilled in other areas including;

- Computer hardware skills
- Teamwork.
- Patience.
- Time management.
- Motivation.
- Problem Solving.
- Meeting deadlines
- Dedication
- Ethics
- Honesty
- Integrity
- Maturity
- Reliability
- Decision making
- Delegating
- People management

LEADERSHIP EXPERIENCE

- Acting Deputy Vice-Chancellor, Academic and Student Affairs, Maseno University – 30th October 2017 to August 2018.
- Dean, School of Physical and Biological Sciences, Maseno University - July 2013 to date
- Chairman, Department of Botany, Maseno University - August 2011 to October 2014;
- Chairman, Department of Botany and Horticulture, Maseno University - April 2008-August 2011;
- Chairman, Department of Botany, Maseno University - July 2001-January 2005.
- Chairman, Departmental Postgraduate Committee, Department of Botany and Horticulture June-2006- April 2008

- Examination Officer/Timetable Coordinator, Botany Department, Maseno University College-1992-2001

CONFERENCES AND WORKSHOPS

- i. Presented a paper titled “Climate Smart Agriculture: Application of technologies in efficient utilization of resources for increased agricultural production” Exploring Biophysics Diversity for sustainable Industrial and Economic Development held at Bishop Stam Conference Centre, Kakamega, on 3rd to 4th July, 2019.
- ii. Presented a paper titled” Designing Quality Data Collection Tools and Collecting Data Based on New Data Collection Methods” at a a workshop “New Data tools for Scientific Data Collection, Data Analysis and Quality Statistical Report Writing workshop, held at Sirikwa Hotel, Eldoret on 9th -10 My 2019. Sponsor-DAAD/KDSA
- iii. Attended a workshop on ”The Leading Rile of Universities on Realisation of Sustainable Development Goals (SDGs) and Global Citizenship Education” held on 11th to 13th June 2018 at the Kenya Institute of Curriculum Development (KICD), Nairobi
- iv. Participated in a Scientific Camp of excellence for Mentoring girls in Science, Technology, Engineering and Mathematics (STEM)” for selected high school girl students in Nyanza region held at Kisumu Girls High School, from 23-27th November, 2015.and presented a paper on “ STEM Career courses and opportunities in Maseno University”. The Training workshop was jointly sponsored by the Ministry of Education, UNESCO, regional Office for Africa and NACOSTI.
- v. African Cities of the Future: Smart, Sustainable, Public. Sponsored by DAAD’s Regional Office for Africa in Nairobi, the Konrad Adenauer Stiftung, the UN-HABITAT and the IFP of Ford Foundation. 30th -31st May 2012
- vi. Attended the First Alexander von Humboldt Alumni Kenyan Kolleg Conference held on 24th to 26th November, 2010, at Meridian Court Hotel, Nairobi, Kenya.
- vii. Attended a Vicres Results Based Management (RBM) workshop on 23-25 November 2009 at Jinja Nile Resort Hotel, Jinja Uganda
- viii. Attended a Workshop on Client Oriented Breeding (COB) on 21-25 June 2010 at Golf Hotel, Kakamega, Kenya.

- ix. Attended a workshop on Proposal writing on 1st to 5th October 2007 at IDRC Office, Dakar, Senegal. The workshop was sponsored by the International Foundation for Science (IFS), Sweden.
- x. Participant at the IRPS proposal writing workshop whose theme was “Capacity Building in Research Proposal writing skills” on 25th to 27th April 2001, Maseno University.
- xi. I attended a three weeks course at the Institute of Computer, University of Nairobi, in February 1989, on introduction to MS DOS and Computer application packages such as Lotus, Debase, WordStar, and WordPerfect.
- xii. I participated in a Sub-regional symposium on “Conservation of Biodiversity of Lake Victoria and other East African Lakes: Application of Biotechnology and aquaculture” held at Tom Mboya Labour College, Kisumu, Kenya, in November 1992.
- xiii. I attended a commonwealth Science Council workshop on “amelioration of the soil by trees” at ICRAF, Nairobi from 20th – 24th Nov. 1989.

PUBLICATIONS

Refereed Journals

1. Wekulo John K., Musyimi David. M. & **Netondo Godfrey.W.**2020. Physicochemical Characteristics of River Kuywa Water, Bungoma, Kenya. Journal of Environmental Science, Computer Science and Engineering & Technology **9**(2): 342-351.
DOI:10.24214/jecet.A.9.2.34251
2. Karl W Nyabundi, P Okinda Owuor , **Godfrey W Netondo** , John K Bore 2019. Fertilizer Response and Environment Interactions of Yield and Yield Components of Clonal Tea (*Camellia Sinensis*) in Kenya. International Journal of Tea Science. **14** (1):6-13. DOI: 10.20425/ijts1412
3. Karl W Nyabundi, P Okinda Owuor, **Godfrey W Netondo**, John K Bore 2019. Radiation Use Efficiency and Yield Responses of Clonal Tea (*Camellia sinensis*) to Locations of Production International Journal of Tea Science. **14** (1): 26-35. DOI: 10.20425/ijts1414
4. Dennis Simiyu Wamalwa, Phoebe Anyango Sikuku, **Godfrey Wafula Netondo** and Buyela Daniel Khasabulli (2019). Influence of NPK Blended Fertilizer Application on Chlorophyll Content and Tissue Mineral Contents of Two Finger Millet Varieties Grown in Acid Soils of Kakamega, Western Kenya. International Journal of Plant & Soil Science, **27** (4): 1-9, 2019; Article no.IJPSS.40788 ISSN: 2320-7035)

5. Dennis Simiyu Wamalwa, **Godfrey Netondo**, and Phoebe Sikuku 2017. Effect of NPK Blended Fertilizer Rates on Growth and Yield Attributes of Finger Millet Varieties Grown in Acidic Soil of Western Kenya. *Archives of Current Research International* **11**(4): 1-11
6. Karl W. Nyabundi, P. Okinda Owuor, **Godfrey W. Netondo** and John K. Bore .2017. Seasonal and Environmental Variations of Yields and Yield Components of Tea (*Camellia sinensis*) Cultivars in Kenya. *International Journal of Tea Science* **13**: 10-24
7. Karl W. Nyabundi, P. Okinda Owuor, **Godfrey W. Netondo** and John K. Bore. 2017. Yields and Nitrogenous Fertiliser Use Efficiency Responses of Clonal Tea (*Camellia sinensis*) to Locations of Production. *International Journal of Tea Science* **13**: 32-40
8. Lydia Boke Marwa, Jacob K. Kibwage and **Godfrey W. Netondo** 2017. Environmental Management Practices amongst Tobacco Farmers in Migori County, Kenya. *Archives of Current Research International*, **7**(2): 1-12
9. Jomo O. M., **G.W. Netondo**, D. M. Musyimi 2016. Drought inhibition of chlorophyll content among seven *Amaranthus* species. *International Journal of advancedResearch in Science, Engineering and Technology*, **3**(2):1362-1371.
10. Jomo O. M., **G.W. Netondo**, D. M. Musyimi 2016. Growth Changes of Seven *Amaranthus* (*spp*) During the Vegetative and Reproductive Stages of Development as Influenced by Variations in Soil Water Deficit. *International Journal of Research and Innovations in Earth Science*, **2**, (6): 2394-1375
11. **Akwee, P.E., Netondo, G. and Palapala, VA. 2015. A critical review of the role of taro *Colocasia esculenta* L. (Schott) to food security: A comparative analysis of Kenya and Pacific Islands taro germplasm. *Sci. Agr.* **9**(2): 101-108**
12. Akwee P.E., **Netondo, G.** and Palapala, V.A.2015. Comparative analysis of phenotypic characterization of Kenya and Pacific Islands tarogen germplasm collections *Colocasia esculenta* L. (Schott). *Sci. Agri.* **9**(2): 113-119.
13. Jomo O. M., **G.W. Netondo**, H.O. Okello, S.S Fedha and D.M. Musyimi Physiology of African nightshades (*Solanum scabrum* Mill. and *Solanum villosum* Mill.) as Influenced by Soil Water Deficit .*Nature & Environment.* **19** (2), 2014: 137-146
14. Jomo O. M., **G.W. Netondo**, H. O. Okello, S. S Fedha, D. M. Musyimi. 2014. Growth of Selected African Nightshades (*Solanum Scabrum* Mill. and *Solanum Villosum* Mill.) Under Water Limitations. *IJBS.* **1**(2) : 97-106, *Issue Identifier* : IJBS-20140701-Online

15. Mmayi M. P, Musyimi D. M and **Netondo G. W.** 2014. Response of Soybean Varieties to Aluminium Chloride Toxicity. *IJBS. Volume-Issue : 1-2, Pages : 80-96. Issue Identifier : IJBS-20140701-Online*
16. Jomo O. M., **G.W. Netondo**, H. O. Okello, S. S Fedha, D. M. Musyimi 2014. Effects of Water Deficit on The Biochemical Content of Selected African Nightshades *Solanum Scabrum* Mill. And *Solanum Villosum* Mill. [IJBS](#). *Volume-Issue : 1-2 .Pages : 65-74. Issue Identifier : IJBS-20140701-Online*
17. Wilfred O. Arori, Jacob K. Kibwage, **Godfrey W. Netondo** and Fredrick Onyango **2013**. A Markov Model for Bamboo Harvest Forecasting in South Nyanza Region, Kenya. *Adv. J. Agric. Res. 1(4): 045-050*
18. Nelly Nambande Masayi and **Godfrey Wafula Netondo**. 2013. Changes in agrobiodiversity as a result of sugarcane farming in Mumias division, western Kenya. *African Journal of Agricultural Research 8*: 3735-3743; DOI: 10.5897/AJAR12.1883
19. Ambede, J.G., **Netondo, G.W**, Mwai, G.N. and Musyimi, D.M. NaCl. 2012. Salinity Affects Germination, Growth, Physiology and Biochemistry of Bambara Groundnut (*Vigna subterranea* (L.) Verdc) *Brazilian Journal of Plant Physiology. 24(3)*: 151-160
20. Chumba RKB, Owuor B, Mwai GN, Odhiambo GD, **Netondo GW**, 2012. Yield advantage of maize and artemisia intercrops in a sub-humid ecozone of Western Kenya. *Journal of Biodiversity and Environmental Sciences (JBES) 2* (12): 41-45. Open access [http:// www.innspup.net](http://www.innspup.net)
21. Masayi, N. and **Netondo, GW**. 2012. Effects of sugarcane farming on diversity of vegetable crops in Mumias Division, Western Kenya. *International Journal of Biodiversity and Conservation. 4*(13): 515-524. Available online at <http://www.academicjournals.org/IJBC>. DOI: 10.5897/IJBC12.042. ISSN 2141-243X ©2012 Academic Journals
22. Sikuku P.A., Onyango J.C. and **Netondo G.W.** 2012. Physiological and biochemical responses of five nerica rice varieties (*Oryza sativa* L.) to water deficit at vegetative and reproductive stage. *Agriculture and Biology Journal Of North America, 3*(3): 93-104. ISSN Print: 2151-7517, ISSN Online: 2151-7525, doi:10.5251/abjna.2012.3.3.93.104 © 2012, ScienceHuß, <http://www.scihub.org/ABJNA>.
23. Sikuku P.A., Onyango J.C and **Netondo G.W.** 2012. Yield Components and Gas Exchange Responses of Nerica Rice Varieties (*Oryza Sativa* L.) to Vegetative and

- Reproductive Stage Water Deficit. *Global Journal of Science Frontier Research*. **12**:49-59.
24. D. M. Musyimi, **G. W. Netondo**, B. Owuor and B. M. Gichimu 2010. Ecophysiological And Genetic Characteristics of three Wetland Plant Species Occurring In Lake Victoria Region In Kenya. *Arpn Journal of Agricultural and Biological Science* **5**(5): 41-54
 25. D. M. Musyimi, **G. W. Netondo**, B. Owuor and B. M. Gichimu 2010. Growth and Nutrient Uptake among Three Wetland Plant Species Occurring In Lake Victoria Basin In Kenya. *Agriculture and Biology Journal of North America* **1**(3): 250-264.
 26. **Netondo, G. W.**, Waswa, F., Maina, L., Naisiko, T., Masayi, N. and Ngaira, J.K. 2010. Agrobiodiversity endangered by sugarcane farming in Mumias and Nzoia Sugarbelts of Western Kenya. *African Journal of Environmental Science & Technology* **7**: 437-445.
 27. Sikuku P.A., **Netondo G.W.**, Onyango, J.C. and Musyimi, D. M. 2010. Effects of water deficit on days to maturity and yield of three NERICA rainfed rice varieties. *Journal of Agricultural and Biological Science* **5** (3): 1-9
 28. Sikuku P.A., **Netondo G.W.**, Onyango, J.C. and Musyimi, D. M. 2010. Chlorophyll fluorescence, protein and chlorophyll content of three NERICA rainfed rice varieties under varying irrigation regimes. *Journal of Agricultural and Biological Science* **5** (2): 19-25
 29. Sikuku P.A., **Netondo G.W.**, Onyango, J.C. and Musyimi, D. M. 2010. Effects of water deficit on physiology and morphology of three rice varieties of NERICA rainfed rice (*Oryza sativa* L.). *Journal of Agricultural and Biological Science* **5** (1): 23-28
 30. Okello, S. V. Nyunja, O. R. **Netondo G. W.**, Onyango J. C. 2010 Ethnobotanical study of Medicinal Plants Used By Sabaots of Mt. Elgon, Kenya. *African Journal of Traditional, Complementary and Alternative medicines* **7**: 1-10
 31. Waswa, F; **Netondo, G**; Maina, L; Naisiko, T and Wangamati, J. 2009: Potential of Corporate Social Responsibility for Poverty Alleviation among Contract Sugarcane Farmers in the Nzoia Sugarbelt, Western Kenya. *Journal of Agricultural and Environmental Ethics*, **22**: 463-475 ISSN1187-7863 (Print) 1573-322X (Online –line). Springer DOI 10.1007/s10806-009-9165-6.
 32. Waswa, F., Mcharo M and **Netondo G.** 2009: Enhancing Household Food and Income Security through Crop Diversification in the Nzoia and Mumias Sugarbelts in Kenya: *Journal of Applied Biosciences* **23**: 1406-1415, ISSN 1997-5902, published at www.biosciences.elewa.org on 10th November 2009.

33. J.K. Kibwage J.K., **G.W. Netondo**, A.J. Odondo, B.O. Oindo, G.M. Momanyi and F.Jinhe. 2008. Growth performance of bamboo in tobacco-growing regions in South Nyanza, Kenya. *African Journal of Agricultural research* **3**: 716-724. Available online at <http://www.academicjournals.org/AJAR>.
34. Luvaha E. **Netondo, G.W.** and Ouma, G. 2008. Effect of water deficit on the physiological and morphological characteristics of mango (*Mangifera indica*) rootstock seedlings. *American Journal of Plant Physiology*. **3**: 1-15.
35. Musyimi, D.M., **Netondo, G.W.** and Ouma, G. 2008. Salinity and Temperature Effects on CO₂ Assimilation in Leaves of Avocados. *American Journal of Plant Physiology* **3**: 40-49
36. Musyimi, D.M., **Netondo, G.W.** and Ouma, G. 2007. Growth of Avocado Plants under saline conditions. *International journal of Fruit Science*. **7**:59-75.
37. Musyimi, D.M. **Netondo, G.W.** and Ouma G. 2007. Effects of salinity on gas exchange and nutrient uptake in avocados. *Journal of Biological Sciences*. **7**: 496-505.
38. Musyimi, D.M., **Netondo G.W.** and Ouma G. 2007. Effects of salinity on growth and Photosynthesis of Avocado seedlings. *International Journal of Botany*. **3**: 78-84.
39. **Netondo, G.W.**, J.C. Onyango, and E. Beck, 2004 Sorghum and salinity I: Response in growth, water relations and ion accumulation in sorghum (*Sorghum bicolor* L. Moench) to NaCl salinity. *Crop Science* **44**:797-805.
40. **Netondo, G.W.**, J.C. Onyango, and E. Beck, 2004. Sorghum and Salinity II: Gas exchange and chlorophyll fluorescence of sorghum (*Sorghum bicolor* L.) under salt stress. *Crop Science*. **44**:806-811.
41. Mungai, D.N., C.J. Stigter, C.L. Coulson, J.K. Ng'ang'a, **G.W. S., Netondo** and G.O. Umay, 2001. Understanding yields in alley cropping maize (*Zea mays* L.) and *Cassia siamea* Lam. Under semi-arid conditions in Machakos, Eastern Kenya. *Journal of Environmental Science*. **13**:164-169.
42. **Netondo, G.W.**, J.C. Onyango, J.M.N. Macharai, C.L.Coulson, and C.J.Stigter, 2000. Potential of competition for water between *Cassia siamea* Lam. And *Zea mays* L. in alley cropping under semi-arid conditions. *Maseno Journal of Education, Arts and Science*. **3**:128-137.

Books and Book Chapters

1. Jacob K. Kibwage, **Godfrey W. Netondo** and Peter O. Magati. 2014. Substituting Bamboo for Tobacco in South Nyanza Region, Kenya. In: Tobacco Control and Tobacco Farming: separating Myths from Reality. Edited by Wardie Leppan, Natacha Lecours and Daniel Buckles. Anthem Press, London Uk. pp 189-210
2. Waswa, F., **Netondo G.W.**, Maina, L.W. and Naisiko, T.(Eds.) 2011. Commercial Sugarcane Farming in the Lake Victoria Region: A quandary of opportunities. Fountain Publishers, Kampala, Uganda. ISBN Number 978-9970-25-091-2
3. **Netondo, GW.**, Waswa, F., Maina, LW, Naisiko, T., (2011). Maximizing the Potential of Commercial Sugarcane Farming for Sustainable Livelihoods in the Lake Victoria Basin. In: *Commercial Sugarcane Farming in the Lake Victoria Basin: A Quandary of Opportunities*. Fountain Publishers, Kampala, Uganda. Pp. 157-164.
4. **Netondo, GW** and Maina, LW. 2011. Historical Development of Commercial Sugarcane farming in the Lake Victoria Basin. In: *Commercial Sugarcane Farming in the Lake Victoria Basin: A Quandary of Opportunities*. Fountain Publishers, Kampala, Uganda. Pp. 1-13.
5. **Netondo, GW**. 2011. Sugarcane farming, Biodiversity and ecosystem services nexus in the Lake Victoria Basin. In: *Commercial Sugarcane Farming in the Lake Victoria Basin: A Quandary of Opportunities*. Kampala: Fountain Publishers, Kampala, Uganda. Pp. 39-59.