

## CURRICULUM VITAE

### Personal Details

Name: Geoffrey Kironchi  
Nationality: Kenyan  
Profession: Agroecology & Soil Water Management  
Current position: Associate Professor  
Institution: University of Nairobi  
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### Education and Training

Education Level	Institution	Dates
University	University of Nairobi, PhD (Soil & Water Mgt)	1995-1998
	University of Nairobi, M.Sc (Soil Science)	1989-1991
	University of Nairobi, B.Sc (Range Management)	1985-1988

### Specialized Short Courses Training (Selected)

1. Professional Development Course on Ecosystem Services for Poverty Alleviation, organized by the Ecosystem Services for Poverty Alleviation (ESPA) programme, with support from the Tropical Biology Association, March 5-7, 2018, Nairobi.
2. Improved Methods for Agribusiness Learning, organized by Market Matters Inc., Cape Town, South Africa, May 5-10, 2013.
3. Results-Based Management (RBM), organized by ANAFE, University of Abdou Moumouni of Niamey, Niger, November 29-December 1, 2012.
4. Development of Instructional Content for Open and Distance Learning, organized by the Centre for Open and Distance Learning (CODL), University of Nairobi at KWSTI Naivasha, August 5-11, 2012.
5. PhD Training Supervision, organised by Prepare-PhD Project, College of Agriculture and Veterinary Sciences, University of Nairobi, March 2-4, 2010, Nairobi.
6. The Essential Electronic Agriculture Library (TEEAL)-Access to Global Online Research in Agriculture (AGORA) Kenya Regional Leaders Course. Information Training & Outreach Centre for Africa (ITOCA), 01-04 December 2009, Nairobi.
7. Scientific Writing: Proposals, Journal Publications & Communication. Training workshop organized by Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) and College of Agriculture and Veterinary Sciences, University of Nairobi; May 26-30, 2008, Kenya School of Monetary Studies, Nairobi.
8. Pedagogy Training, organised by School of Education, University of Nairobi, January 15-16, 2008, Nairobi
9. Technology Mediated Open and Distance Education (Tech-MODE) for Agriculture & Open Education Resource E-learning, Commonwealth of Learning and World Agroforestry Centre, 24-27 May, 2007, Nairobi, Kenya.
10. Creativity in the Workplace, organized by IFPRI-ISNAR, Addis Ababa, Ethiopia, Dec 3-10, 2005.
11. E-Learning Content Development: Training of Trainers. Course organized by the School of Computing and Informatics, University of Nairobi, 2003.
12. Development of Participatory Research Design and Methods for Pastoral Areas, International Livestock Research Institute, 2002.
13. International Postgraduate Course in Crop Weather Modeling, Regional Meteorological Centre, Bet Dagan, Israel, 2001.

14. Agroecology and Hydrology Databases Management (Institute of Geography, University of Berne/NRM Project (Kenya), 1992).
15. Remote Sensing (Regional Centre for Services in Survey, Mapping and Remote Sensing Remote Sensing (RCSSMRS), Nairobi, Kenya, 1989).

### Employment

- 2014-Date: Associate Professor, Department Land Resource Management and Agricultural Technology (LARMAT) Faculty of Agriculture, University of Nairobi.
- 2004-2013: Senior Lecturer, Department Land Resource Management and Agricultural Technology (LARMAT) Faculty of Agriculture, University of Nairobi.
- 1996-2003: Lecturer, Department of Soil Science, Faculty of Agriculture, University of Nairobi.  
PhD Researcher, Natural Resources Monitoring, Modeling and Management (NRM<sup>3</sup>) (University of Nairobi-University of Bern, Switzerland Collaboration)
- 1993-1996: Assistant Lecturer, Department of Soil Science, Faculty of Agriculture, University of Nairobi.
- 1992-1993: Researcher, Laikipia Research Programme, a government of Switzerland funded project.
- 1988-1991: District Range Planning Officer, Ministry of Livestock Development, Isiolo District, Kenya.

### Consultancies (selected)

Carried out many consultancies as lead scientist or team member for local, regional and international organizations in the last 20 years in his areas of specialization. Some selected are the following:

1. Team member, Development of Evergreen Agriculture (EVA) Curriculum, Evergreen Agriculture Partnership (EVAP) and the African Network for Agriculture, Agroforestry and Natural resources Education (ANAFE), August 2017.
2. Team member, Feasibility Study for Food Security through Improved Agricultural Productivity in Western Kenya. Expert looking at the Soil Conditions and their Suitability for Irrigated Agriculture. GITEC-ORGUT Project No 2345 (January-April 2016).
3. Team leader, Degree of Bachelor of Dryland Economics and Agro-Ecosystem Management curriculum implementation monitoring. IGAD Sheikh Technical Veterinary School & Reference Centre, Somaliland/FAO (2013/2014)
4. Co-Team leader, Training Needs Assessment in the Livestock, Agriculture and Fisheries Sectors in Somaliland. Save the Children/FAO (2012)
5. Lead scientist, Assessment of soil and water resources suitability for irrigated vegetable production and training of trainers at the UNHCR-Kakuma Centre in Northern Kenya. EDP/UNHCR-Kakuma (2011)
6. Team leader, Assessment of training programmes in Natural Resources Management at university level in Eastern and Southern Africa. International Institute for Rural Reconstruction (IIRR) and IDRC (2010).
7. Co-Team leader, Bamba Food Security Recovery Project in Kilifi. Final multi-disciplinary Project Evaluation and Impact Assessment. World Vision Kenya (2009).
8. Team leader, Evaluation of Moyale Water and Sanitation Project (2008). World Vision Kenya.
9. Lead scientist, Technology Mediated Open & Distance Education (Tech-MODE) for Agriculture in Kenya. Commonwealth of Learning (2007).
10. Team leader, Soil Conditions and Moisture Regime under *Acacia xanthophoelia* around Lake Naivasha (2006). Lake Naivasha and Elementaita Riparian Association.
11. Team leader, Land evaluation and water requirements for plantation forestry in OI Pejeta Ranch, Laikipia District, Kenya (March 2005). OI Pejeta Ranching.
12. Lead scientist, SOTER Soil Database establishment and management for NRM<sup>3</sup>. Natural Resources Monitoring, Modeling and Management (NRM<sup>3</sup>) project at Nanyuki (2000).
13. Team leader, Soil conservation and water balance studies in the Upper Ewaso Ng'iro Basin basin. Swiss Science Foundation/Rockefeller Foundation (1996).

14. Team member, Environmental impact assessment for swamps drainage in Laikipia District (1996/1997). Laikipia District ASAL Development/Netherlands Government funded rural development project.
15. Team member, Reconnaissance soil survey of the Upper Ewaso Ng'iro Basin. Laikipia Research Programme (1992).
16. Team member, Soil characterisation and land evaluation for the proposed Nguruman, Sambu Plains, and Olkiramatan irrigation schemes in Kajiado District, Kenya (1992) (Ministry of Agriculture, Government of Kenya).

### **University Teaching, Research & Student Supervision**

#### **Undergraduate**

Teach the following courses: Environmental Hydrology, Hydrology & Agrometeorology, Utilization & Management of Wetland Ecosystems, Watershed Management.

#### **Postgraduate**

Teach the following courses: Soil & Water Conservation, Watershed Management (MSc & PhD), Agricultural Water Management, Climate Change and Sustainable Agriculture.

#### **Postgraduate Research and Student Supervision**

- (a) Completed research projects supervised/co-supervised: 19 MSc and 6 PhD students
- (b) Current/on-going research projects supervision/co-supervision: 2 MSc and 3 PhD students

#### **External Examiner**

(a) MSc Thesis and PhD Thesis  
To date examined 31 MSc and 9 PhD theses from various universities in Kenya and the Eastern Africa region.

(b) University Examinations

1. IGAD Sheikh Technical University College, Somaliland (2015-to date)
2. Africa Nazarene University (Kenya), Department of Dryland and Natural Resources Management (2008-2011)
3. Kenyatta University (Kenya), Department of Agricultural Resource Management (2010-2012)

### **Current and Past Appointments and Responsibilities at the University of Nairobi**

#### **Responsibilities in the Department of Land Resource Management**

1. Head, Department of Land Resource Management, (2014-Date)
2. Head, Soil Science Section, Department of LARMAT (2005-2010)
3. Coordinator, Information & Communication Technology (ICT) and e-Learning Committee
4. Coordinator, Curricula Development & Review Committee
5. Coordinator, AGRA funded regional MSc in Sustainable Soil Resource Management Curriculum Development (2010)
6. Coordinator, 3 MSc. Programmes: Agroforestry, Agroecosystems & Environment, and Land & Water Mgt.
7. Member, Department of LARMAT Strategic Planning Committee (2012)

#### **Responsibilities in the Faculty of Agriculture**

1. Chair, Information & Communication Technology (ICT) and e-Learning Committee
2. Faculty Representative, University Website content preparation and uploading (2007/2008)
3. Chair, Environmental and Safety Committee
4. Member, Faculty Curricula Development & Review Committee
5. Member, Agricultural Resource Management (ARM) MSc. Programme Committee
6. Chair, MSc Agroforestry Programme Curriculum Development Committee (2011)
7. Chair, BSc Water Resources Management Curriculum Development Committee (2013)

8. Member, Faculty of Agriculture Strategic Planning Committee (2004)
9. Member, RUFORUM Coordination Committee
10. Member, PhD Dryland Resource Management Curriculum Development Committee (2008)
11. Chair, Exhibitions Committee (2006-2009)
12. Coordinator, University of Nairobi, SAEC-DE Pilot Project (2005-2010)
13. Coordinator, ANAFE-ECA RAFT Focal Institution Project (University of Nairobi)
14. Acting Associate Dean, Faculty of Agriculture (December 31, 2009 - April 30, 2010)

#### Responsibilities in the Collage of Agriculture and Veterinary Sciences

1. Coordinator, Environmental Sustainability Committee (2012-Date)
2. Member, Implementation Committee, CAVS ICT Network Infrastructure Project Phase III (2010)
3. Member, Show and Exhibitions Committee (2006-2009)
4. Member, College Strategic Planning Committee (2005)

#### Appointments to Technical Committees/Networks

1. Board Member, African Network for Agriculture, Agroforestry & Natural Resources Education (ANAFE) (Since 2010)
2. Senior Education Fellow, ANAFE-Eastern & Central Africa Regional Agricultural Forum for Training (since 2010)
3. Member, Research Proposal Review & Advisory Committee (RePRAC) - Kenya Agricultural Productivity & Agribusiness Project (KAPAP) (since 2010)
4. Member, Proposal Review & Grants Authorization & Advisory Committee - Kenya Agricultural Productivity Project (KAPP) (2007-2009).
5. Judge Kenya Agricultural Research Institute Biannual Scientific Conference (2012)
6. Member, Steering Committee of NRM Book Writing Project - Managing Natural Resources for Development in Africa - IIRR/IDRC (2009-2010)
7. Secretary, Soil Science Society of East Africa, Kenya Chapter (2003-2007)
8. Chairman, Soil Science Society of East Africa, Kenya Chapter (2007-2010)
9. Reviewer, International Foundation for Science Research Proposals
10. Reviewer, East African Agricultural and Forestry Journal manuscripts
11. Reviewer, African Crop Science Journal manuscripts
12. Reviewer, Soil Science Society of East Africa Annual Conference scientific papers

#### Professional Affiliations

1. Member, Soil Science Society of East Africa
2. Member, Kenya Rainwater Association
3. Member, Nature Kenya
4. Member, Kenya Rainwater Association
5. Member, Kenya Irrigation and Drainage Association
6. Member, University of Nairobi Alumni Association (fully paid Bronze Member)

#### Scientific and Technical Publications

##### Papers in Refereed Journals

1. Warui, M.W., L. Hansted, M. Gikungu, J. Mburu, G. Kironchi, and A. S. Bosselmann. 2019. Characterization of Kenyan Honeys Based on their Physicochemical Properties, Botanical and Geographical Origin. *International Journal of Food Science*. Vol. 2019:1-10.
2. Uwizeyimana, D., S.M. Mureithi, S.M., G. Karuku, G. Kironchi. 2018. Effect of water conservation measures on soil moisture and maize yield under drought prone agro-ecological zones in Rwanda. *International Soil and Water Conservation Research*. 6(2018):214-221.

3. Uwizeyimana, D., S.M. Mureithi, S.M. Mvuyekure, G. Karuku, **G. Kironchi**. 2018. Modelling surface runoff using the Soil Conservation Service-Curve Number method in a drought prone agro-ecological zone in Rwanda. **International Soil and Water Conservation Research**. DOI: <https://doi.org/10.1016/j.iswcr.2018.12.001> Reference: ISWCR156.
4. Malaki, P.A., **G. Kironchi**, S. Mureithi and V. Kathumo. 2017. Assessment and Projection of Land Use and Land Cover Change in Nguruman Sub-Catchment, Kajiado, Kenya. **International Journal of Agriculture, Environment and Bioresearch**. 2(5):15-34.
5. Malaki, P.A., **G. Kironchi**, S. Mureithi and V. Kathumo. 2017. Assessing land use and land cover change using the participatory geographical information system (PGIS) approach in Nguruman Subcatchment, Kajiado, Kenya. **Journal of Geography and Regional Planning**, 10(8): 219-228
6. Onyancha, D.M., C.K. Gachene and **G. Kironchi**. 2017. FAO-CROPWAT Model-Based Estimation **Journal of Ecology**, 4(2):1-13.
7. Mulebeke, R., **G. Kironchi**, M. M. Tenywa. 2015. Exploiting Cropping Management to Improve Agricultural Water Use Efficiency in the Drylands of Eastern Uganda. **Sustainable Agriculture Research**, 4(2):57-69
8. Mulebeke, R., **G. Kironchi**, M. M. Tenywa. 2013. Soil moisture dynamics under different tillage practices in cassava-sorghum based cropping systems in eastern Uganda. **Ecohydrology and Hydrobiology** 13: 22-30.
9. Karuku, G.N., C.K.K. Gachene, N. Karanja, W. Cornelis, H. Verplancke and **G. Kironchi**. 2012. Soil Hydraulic Properties of a Nitisol in Kabete, Kenya. **Tropical and Subtropical Agroecosystems** 15: 595-609.
10. Kironchi, G. Global Action to Combat Desertification; a Threat to Livelihoods in Arid and Semi-arid Lands. Guest Column, Baobab Magazine Issue No. 65: 11-13, December 2012.
11. Zziwa, E., **G. Kironchi**, C.K. Gachene, S. Mugerwa and, D. Mpairwe. 2012. The dynamics of land use and land cover change in Nakasongola District. **Journal of Biodiversity and Environmental Sciences**. ISSN: 2220-6663 (Print) 2222-3045 (Online) 2 (5): 61-73. <http://www.innspub.net>
12. Nyamwamu, B, J.J. Okello and **G. Kironchi**. 2012. Drivers of the transition from pastoralism to vegetable farming in Africa's arid and semi arid areas and implications for soil fertility management: The case of Kenyan pastoralists. **African Journal of Agricultural Research** Vol. 7(15), pp. 2273-2282, 19 April, 2012. Online at <http://www.academicjournals.org/AJAR>. DOI: 10.5897/AJAR11.1176. ISSN 1991-637X
13. Kirina T.K., R.N. Onwonga C. Onyango J.P. Mbuvi and **G. 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.
14. Miriti, J.M, **G. Kironchi**, A.O. Esilaba, L.K. Heng, C.K.K. Gachene, D.M. Mwangi, 2012. Yield and water use efficiencies of maize and cowpea as affected by tillage and cropping systems in semi-arid Eastern Kenya. **Agricultural Water Management** 115(2012) 148-155.
15. Mpairwe, D., E. Zziwa, **G. Kironchi**, B. Isabirye and S. Mugerwa. 2011. Soil degradation following land use and cover change in the rangelands of Uganda. **International Journal for Advanced Biological Research** 1(1):35-44 ISSN 2250 - 357935
16. Zziwa, E., **G. Kironchi**, C.K. Gachene, S. Mugerwa and D. Mpairwe. 2011. Production systems, land cover change and soil factors affecting pasture production in semi-arid Nakasongola. **Agriculture and Biology Journal of North America**. ISSN Print: 2151-7517, ISSN Online: 2151-7525 © 2011, ScienceHuß, <http://www.scihub.org/ABJNA>
17. Ihwagi, F.W., R.M. Chira, R.M., **G. Kironchi**, F. Vollrath and I. Douglas-Hamilton. 2011. Rainfall pattern and nutrient content influences on African elephants' debarking behaviour in Samburu and Buffalo Springs National Reserves, Kenya. **African Journal of Ecology**, 49:1-8.
18. Karanja, N, M. Njenga, G. Prain, E. Kang'ethe, **G. Kironchi**, C. Githuku, P. Kinyari and G.K. Mutua, 2010. Assessment of environmental and public health hazards in wastewater used for urban agriculture in Nairobi, Kenya. **Tropical and Subtropical Agroecosystems**, 12: 85-97.
19. Muhati, S.I., K. D. Shepherd, C. K. Gachene, M. W. Mburu, R. Jones, **G. Kironchi** and A. Sila. May, 2011. Diagnosis of soil nutrient constraints in small-scale groundnut (*Arachis hypogaea* L.) production systems of western Kenya using infrared spectroscopy. **Journal of Agricultural Science and Technology**, A 1 (2011) 111-127.

20. Ihwagi1, F.W., F. Vollrath, R.M. Chira, R.M., I. Douglas-Hamilton and G. Kironchi. 2010. The impact of elephants, *Loxodonta africana*, on woody vegetation through selective debarking in Samburu and Buffalo Springs National Reserves, Kenya. **African Journal of Ecology**, 48: 87-95.
21. Kimigo, J., J.P. Mbuvi, G. Kironchi and P.T. Gicheru. 2008. Effects of land use change on soil qualities in the Susamua catchment of Tana River drainage system in Nyandarua District. **East Africa Agricultural and Forestry Journal**, 74(2): 85-94.
22. Miriti, J.M., G. Kironchi, C.C.K. Gachene, A.O. Esilaba. 2008. Effects of water conservation tillage on water use efficiency in maize-cowpea cropping systems in semi-arid eastern Kenya. **East Africa Agricultural and Forestry Journal**, 74(2): 95-101.
23. Wasonga, V.O., R.K. Ngugi, D.M. Nyariki, G. Kironchi and T.J. Njoka. 2003. Effect of *Balanites glabra* canopy cover on grass production, organic matter and soil moisture in a southern Kenyan rangeland. *African Journal of Range & Forage Science*, 20(3): 259-264.
24. Kironchi, G., J.P. Mbuvi, and F.N. Gichuki. 1999. Hydraulic properties of andosols following deforestation in the northern slopes of Mt. Kenya. *East Africa Agricultural and Forestry Journal*, Volume 65(2): 115-124.
25. Mati, B. M., G. Kironchi, F.N. Gichuki, H.P. Liniger and A.C. Bird. 1999. A GIS analysis of soil fertility, erodibility and moisture availability in the Upper Ewaso Ng'iro Basin, Kenya. p. 173-192. *In: Hurni, H. and J. Ramamonjisoa (eds). African Mountain Development in a changing world. Geographica Bernensia. Berne.*
26. Liniger, H.P., F.N. Gichuki, G. Kironchi and L. Njeru. 1998. Pressure on the land: The search for sustainable use in a highly diverse environment. *Eastern and Southern Africa Geographical Journal*, Volume 8: 29-44.
27. Mbuvi, J.P., G. Kironchi and P.M. Mainga. 1997. Effect of topography and climate on soils of the northwestern slopes of Mount Kenya. *ITC Journal*, 1997 (2): 154-159.
28. Kironchi, G. and J.P. Mbuvi. 1996. Effect of deforestation on soil fertility on the northwestern slopes of Mount Kenya. *ITC Journal*, 1996 (3/4): 260-263.
29. Mbuvi, J.P., S.N. Wanjogu and G. Kironchi. 1995. Characteristics of soil crusts and their influence on some soil properties in Mukogodo catchment, Kenya. *African Crop Science Journal*, 3 (4): 425-431.
30. Kironchi, G., S.M. Kinyali and J.P. Mbuvi. 1995. Environmental influence on water characteristics of soils in two semi-arid catchments in Laikipia District, Kenya. *African Crop Science Journal*, 3 (4): 417-424.
31. Kironchi, G., S.M. Kinyali and J.P. Mbuvi. 1993. Validity of Philip equation for infiltration into soils of Sirima and Mukogodo catchments in Laikipia District. *East Africa Agricultural and Forestry Journal*, 58(4): 155-160.
32. Kironchi, G., S.M. Kinyali and J.P. Mbuvi. 1992. Effect of soils, vegetation and land use on infiltration in a tropical semi-arid catchment. *East Africa Agricultural and Forestry Journal*, 57(3): 177-185.

### Book Chapters

1. Kironchi, G., M. Tenywa, A.W. Mwang'ombe, S. Grunwald and E. Hesse. 2010. Strengthening Agricultural and Environmental Capacity via Distance Education and Locally Relevant Research – Kenya and Uganda. P.153-165. *In: Sharing Innovative Experiences*, Vol. 17. United Nations Development Programme.
2. Bagine, R.K., G. Kironchi and E.K. Maranga. 2010. Integrated Natural Resources Management. p. 47-103. *In: Managing Natural Resources for Development in Africa - A Resource Book*. Eds. W. Ochola, P. Sanginga and I. Bekalo. University of Nairobi Press, Nairobi, Kenya.
3. Kironchi, G and A.W. Mwang'ombe. 2008. Technology-Mediated Open and Distance Education for Agricultural Education and Training in Kenya: Opportunities and Challenges. *In: Alluri, K and Zachmann, R. (Eds.) Technology-Mediated Open and Distance Education for Agricultural Education and Improved Livelihoods in Sub-Saharan Africa*; pp 63-76. Commonwealth of Learning, Vancouver, Canada.
4. Gebremichael, M., G. Kironchi, D.M. Nyariki and E.K. Biamah, E.K. 2002. Soil and water conservation. p. 83-93. *In: Managing Dryland Resource in Eastern and Southern Africa*, International Institute of Rural Reconstruction (IIRR), Nairobi, Kenya.
5. Haagsma, B., D.M. Nyariki and G. Kironchi. 2002. Pastoral production systems. p. 13-18. *In: Managing Dryland Resource in Eastern and Southern Africa*, International Institute of Rural Reconstruction (IIRR), Nairobi, Kenya.

### Books

1. Kirina T., R. Onwonga and **G. Kironchi**. 2013. Modeling Potential Impact of Climate Change in Semi-arid Areas: A Simulation of Sorghum and Cowpea Performance using APSIM Model. Lambert Academic Publishing. ISBN: 978-3-31533-6.

#### Papers in Conference/Workshop Proceedings & Technical Reports (selected)

1. Mwang'ombe, A.W., **G. Kironchi** and M. Tenywa. 2006. Strengthening Agricultural and Environmental Capacities through Distance Education. Pan-Commonwealth Conference on Open Learning Proceedings. <http://pcf4.dec.uwi.edu/papers.php>
2. Mugendi, D.N., **G. Kironchi**, and P.T. Gicheru. 2005 (Eds). Capacity building for land resource management to meet the challenges of food security in Africa. Proceedings of the 21<sup>st</sup> Conference of the Soil Science Society of East Africa.
3. Ogara, W.O., D.M. Nyariki and **G. Kironchi**. 2001 (Eds). Food Security in Rural Development. Proceedings of the Seminar of Berlin Alumni Network, November 22-24, 2000, Nairobi, Kenya. ISBN 3-823613472. pp. 119. [www.ban.fu-berlin.de](http://www.ban.fu-berlin.de)
4. **Kironchi, G.**, H.P. Liniger and J.P. Mbuvi. 2000. Degradation of soil physical properties of overgrazed rangelands in Laikipia District. p. 5-10. *In: Gichuki. F.N., D.N. Mungai C.K. Gachene and D.B. Thomas (eds). Land and Water Management in Kenya. English Press Ltd, Nairobi.*
5. H.P. Liniger, C.N. Ondieki and **G. Kironchi**. 2000. Soil cover for improved productivity: Attractive water and soil conservation for the drylands of Kenya. p. 223-2332. *In: Gichuki. F.N., D.N. Mungai C.K. Gachene and D.B. Thomas (eds). Land and Water Management in Kenya. English Press Ltd, Nairobi.*
6. Matuva, D, **G. Kironchi** and L. MacOpiyo. 1997. Environmental impact assessment for swamps drainage in Laikipia District. Technical Report. ASAL Programme, Laikipia District.
7. Mbuvi, J.P and **G. Kironchi**. 1994. Reconnaissance soil survey of the Upper Ewaso Ng'iro Basin. Laikipia-Mt. Kenya Papers, Baseline Data Series, B-8.

#### Articles in Newsletters and Magazines

1. Kironchi, G. Global Action to Combat Desertification - A Threat to Livelihoods in Arid and Semi-arid Lands. Guest Column, Baobab Magazine Issue No. 65: 11-13, December 2012.

#### Invited Lectures

1. Soil and Water Management for Sustainable Agriculture in Drought Prone Areas in Kenya: A Case Study of the Upper Ewaso Ng'iro Basin. Visiting Faculty seminar presentation, Florida Gym 210, University of Florida, December 8, 2006.
2. Sustainable Agriculture in Marginal Areas of Kenya: Challenges and Opportunities. Presented at Buenos Aires University in Argentina, September 28, 2007
3. Challenges and Opportunities in Dryland Agriculture in Africa. Presented at Cordoba University, Cordoba in Argentina, October 1, 2007.

#### Research & Development

##### Grants and Fellowships

1. Eastern and Central Africa Regional Agricultural Forum for Training (ECA-RAFT) Focal Institution: ANAFE-SASACID joint activities in the region funding (2012-2014); Principal Investigator, **\$249,200**
2. Strengthening Africa's Strategic Agricultural Capacity for Impact on Development (SASACID) Project - African Network for Agriculture, Agroforestry & Natural Resources Education (ANAFE) (2011-2014), Principal Investigator, **\$100,000**
3. Capacity Building in Sustainable Soil Resource Management, AGRA funded regional MSc training in Department of LARMAT (2011-2013), member of project preparation & coordination team, **\$327,000**
4. Capacity Building in Dryland Resources Management, RUFORUM funded regional PhD training for 16 students in Department of LARMAT (2009-2011) ), member of project preparation & coordination team, **\$798,098**

5. Benefits of Spring Protection and Willingness to Pay for Improved Water Supply in Western Kenya. NCST funded MSc project (2011-2012) **KES196,000**
6. Modeling Potential Impact of Climate Change in Semiarid Areas - A Simulation of Sorghum and Cowpea Performance using APSIM Model. RUFORUM funded project (2009-2011), Co-Investigator, **\$120,765**
7. Impact of irrigated agriculture on smallholder farmers in ASALs in Kenya. Winrock International funded MSc funded (2007-2008), **KES300,000**
8. Strengthening Agricultural and Environmental Capacities through Distance Education. USAID through CIAT (2006-2010). Two MSc students registered in University of Florida, USA. Coordinated project on behalf of Prof A.W. Mwang'ombe (PI), **\$50,455**
9. Crop Weather Modelling - Israel Government and Regional Meteorological Centre, Bet Dagan, Israel (2001)
10. Natural Resources Monitoring, Modeling and Management (University of Nairobi-University of Bern Soil Water Balance in the Upper Ewaso Ng'iro Basin. Rockefeller Foundation funded Natural Resources Monitoring, Modeling and Management (NRM<sup>3</sup>) project (1995-1998) - PhD full scholarship.
11. Swiss National Science Foundation (SNF) through LRP funding for the MSc thesis project.
12. University of Nairobi Master of Science full scholarship: tuition and stipend (1989-1991).

#### Current Research and Development Interests

1. Soil water management using sustainable technologies in cropland and grazing land in semiarid areas.
2. Managing risk and uncertainty in agriculture through adaptation to climate change and reduction of environmental risks.
3. Development of undergraduate and postgraduate curricula focusing on innovation in agricultural and environmental sciences.
4. Development of relevant and contextualized learning materials for tertiary education in agriculture.
5. Development of content for Open and Distance Education in agricultural and environmental sciences.

#### Participation in Conferences and Workshops (Selected)

1. Workshop on Crop Agriculture in the Drylands: REGLAP, the Technical Consortium for Building Resilience to Drought in the Horn of Africa and FAO, ILRI, February 6, 2013.
2. SASACID ECA & AHT Anglophone Pilot Institutions Implementation Kick-off Workshop, CHAK GH & Conference Centre, Nairobi September 3-4, 2012.
3. UniBRAIN Agribusiness Curriculum Development Workshop by ANAFE, February 27-29, 2012, Mombasa.
4. Eastern and Central Africa Regional Agricultural Forum for Training (ECA-RAFT) Focal Institution Launch Workshop, University of Nairobi, CAVS, October 27-28, 2010.
5. Adaptation of Agriculture to Climate Change, Stockholm Environment Institute/University of Dar es Salaam, Tanzania, June 16-17, 2010.
6. FAO SWALIM Land Use Planning Consultative Workshop, September 11-12, 2008, Nairobi, KENYA.
7. Fifth Pan-Commonwealth Forum on Open Learning, July 13-17, 2008, University of London, UK.
8. Environmental and Public Health Hazards Associated with Wastewater Irrigation in Urban Agriculture in Kenya, Urban Harvest-CIP, 28 January 2008, ILRI Campus, Nairobi.
9. The 24th Conference of Soil Science Society of East Africa, November 25-30, 2007, Embu, Kenya.
10. Forum for Agricultural Research in Africa (FARA) Conference, June 9-15, 2007, Johannesburg, South Africa.
11. Tech-MODE for Agriculture, Commonwealth of Learning, 24-27 May, 2007. Nairobi, Kenya.
12. Workshop on Mainstreaming Gender Analysis in International Potato Centre's (CIP) Research Process, 1-2 March 2007, ILRI Campus, Nairobi
13. CGIAR Centers Annual General Meeting 2006, November 30-December 4, 2006, Washington, USA.
14. International Partners in Strengthening Agricultural and Environmental Capacities through Distance Education (SAEC-DE) Workshop, University of Florida, Institute of Food and Agricultural Sciences, December 6-8, 2006, Gainesville, Florida, USA.
15. Fourth Pan-Commonwealth Forum on Open and Distance Education, October 28-November 5, 2006, Ocho Rios, Jamaica.
16. Capacity Building for Sustainable Development: Sharing Innovative Experiences, TWAS/TWINSO/UNDP
17. October 7-13, 2006, Trieste, Italy.
18. Forum for Agricultural Research in Africa (FARA) Conference, 2-9 June, 2005 Entebbe, Uganda.



19. National Conference on Revitalization of the Agricultural Sector in Kenya, February 2005.
20. RUFORUM National Consultative Strategic Planning Process Workshop, Nairobi January 2005
21. The 22nd Conference of Soil Science Society of East Africa, Nov. 2004, Arusha, Tanzania.
22. Impact of HIV/AIDS on Agriculture Workshop, October 2004, Entebbe, Uganda.
23. UNU/INRA College of Research Associates Biannual Conference, 2003, Accra, Ghana
24. DFID Water for Life Workshop, 2003, Nairobi.
25. The 20th Conference of Soil Science Society of East Africa, 2002, Mbale, Uganda.
26. International Conference on Sustainable Management of Headwater Resources, United States International University, March, 2000, Nairobi.
27. International Conference on Research, Planning and Conflict Resolution for Sustainable Use of Natural Resources, 1998, Kenya.
28. Fourth African Mountain Association Conference organized by AMA, UNU and AHI, May 26-June 1, 1997, Antananarivo, Madagascar
29. Collaboration and Resource Management and Modeling in Semi-Arid Kenya (CARMASAK) Project Workshop, organized by Kenya Agricultural Research Institute (KARI)-Katumani, May 27-29, 1997, Machakos.
30. The 15th Conference of Soil Science Society of East Africa. August 18-23, 1996, Nanyuki, Kenya.
31. Natural Resources Modeling International Workshop, organized by University of Nairobi (Kenya) and University of Bern (Switzerland); May 15-20, 1994, Nanyuki, Kenya
32. Third African Mountain Association Conference, organized by University of Nairobi (Kenya) and University of Bern (Switzerland); June 8-13, 1993, Nairobi, Kenya.
33. Fourth National Workshop on Land and Water Management in Kenya, Wida Highway Motel-Kikuyu, February 15-19, 1993.

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