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Education

- 2017 **Ph.D., Environmental Studies**, University of Colorado at Boulder
Certificate in College Teaching
Dissertation advisor: Dr. J. Terrence McCabe
Dissertation: *Building livelihood resilience in semi-arid Kenya: what role does agroforestry play?*
- 2010 **M.S., Resource Conservation**, University of Montana at Missoula
Emphasis: International Conservation and Development
Thesis title: *Agroforestry potential on household lands outside the Mt. Hanang National Forest Reserve, Tanzania: forest conservation and livelihood implications*
- 2005 **B.S., Biology**, University of Puget Sound
Study Abroad: Wildlife Management, School for Field Studies, Kenya

Academic Appointments and Affiliations

- 2019 - **Assistant Professor** of Environmental Geography, Department of Geography, San Diego State University.
- 2017 - 19 **Research Assistant Professor**, Jornada Experimental Range, College of Agricultural, Consumer, and Environmental Sciences, New Mexico State University
- 2017 - 19 **Fellow**, Sustainability Innovation Lab at Colorado (SILC), University of Colorado Boulder

Publications

Peer reviewed manuscripts published or in press

- Herrick, J.E., Neff, J., **Quandt, A.**, Salley, S., Maynard, J., Ganguli, A., and B. Bestelmeyer.
2019. Prioritizing land for investments based on short- and long-term land potential and degradation risk. *Environmental Science and Policy* 96: 52-58.
doi: 10.1016/j.envsci.2019.03.001.
- Quandt, A.** 2019. Variability in perceptions of household livelihood resilience and drought at the intersection of gender and ethnicity. *Climatic Change* 152: 1-15.
doi: 10.1007/s10584-018-2343-7
- Quandt, A.** 2018. Household Livelihood Resilience Approach: A sustainable livelihoods approach for measuring livelihood resilience. *World Development* 107: 253-263.
doi: 10.1016/j.worlddev.2018.02.024.

- Quandt, A.,** Neufeldt, H., and J.T. McCabe. 2018. Building livelihood resilience: what role does agroforestry play? *Climate and Development*. doi: 10.1080/17565529.2018.1447903.
- Quandt, A.,** Neufeldt, H., and J.T. McCabe. 2017. The role of agroforestry in building livelihood resilience to floods and droughts in semi-arid Kenya. *Ecology and Society* 22(3). doi: 10.5751/ES-09461-220310
- Quandt, A.,** and J.T. McCabe. 2017. “You can steal livestock but you can’t steal trees”: the livelihood benefits of agroforestry during and after violent conflict. *Human Ecology* 45(4): 1-11. doi: 10.1007/s10745-017-9922-5.
- Quandt, A.** and A. Kimathi. 2017. Perceptions of the effects of floods and droughts on livelihoods: lessons from arid Kenya. *International Journal of Climate Change Strategies and Management* 9(3): 337-351. doi: 10.1108/IJCCSM-11-2014-0132
- Quandt, A.** 2016. Farmers and forest conservation: how might land sparing work in practice? *Society and Natural Resources* 29(4), 418 – 431. doi: 10.1080/08941920.2015.1095381
- Quandt, A.** 2016. Towards integrating political ecology into resilience-based resource management. *Resources* 5(4): 31. doi: 10.3390/resources5040031.
- Quandt, A.,** and A. Kimathi. 2016. Adapting livelihoods to climate change in arid Kenya: local perspectives and insights. *African Journal of Rural Development* 1(1): 51-60. Available at: <http://afjrd.org/jos/index.php/ajrd/article/view/93>

Book chapters published or in press

- McCabe, J.T., and **A. Quandt.** Drought: A challenge to livelihoods, sustainability, and resilience. Invited contribution to: Angry Earth: Disaster in an Anthropological Perspective (edited by A. Oliver-Smith, and S.M. Hoffman) *In press*.

Works under review

- Quandt, A.,** Salerno, J., Neff, J., Herrick, J., Hartter, J., Baird, T., McCabe, J. T., and E. Xu. Mobile phone use and agricultural productivity in Tanzania
- Quandt, A.,** Herrick, J., Peacock, G., and S. Salley. A Standardized Land Capability Classification system for land evaluation using mobile phone technology
- Abeje, M., Tsunekawa, A., Haregeweyn, N., Nigussie, Z., Adgo, Enyew, a., Ayalew, Z., Tsubo, M., Elias, A., Berihun, D., **Quandt, A.,** Berihun, M., and T. Masunaga. Community’s livelihood vulnerability to climate variability in Ethiopia.
- Quandt, A.** Can agroforestry improve food security on farms impacted by wildlife crop raiding?

Technical reports, Policy Briefs, and Other Publications

- Quandt, A.** 2018. Designing the LandPKS App: Guidelines for Developing a Global App. LandLinks Newsletter, USAID, June 20, 2018. Available at: <https://land-links.org/2018/06/designing-the-landpks-app-guidelines-for-developing-a-global-app/>
- Quandt, A.** 2018. Announcing the Release of LandPKS 3.0. LandLinks, Newsletter, USAID, April 18, 2018. Available at: <https://land-links.org/2018/04/announcing-the-release-of-landpks-3-0/>
- Quandt, A.** 2018. LandCover: A Mobile Tool for Vegetation Monitoring. LandLinks Newsletter, USAID, February 27, 2018. Available at: <https://www.land->

links.org/2018/02/landcover-mobile-tool-vegetation-monitoring/

Quandt, A. 2018. Location Matters! The Land Potential-Knowledge System Provides Point-Scale Soil Information. LandLinks Newsletter, USAID, January 30, 2018. Available at: <https://land-links.org/2018/01/location-matters-landpks-can-provide-point-scale-soil-information/>

Quandt, A. 2017. Online Training for Using the LandPKS App – Available Now. LandLinks Newsletter, USAID, Dec 20, 2017. Available at: <https://land-links.org/2017/12/online-training-using-landpks-app-available-now/>

Resilience Academy Participants. 2016. Loss and Damage, Livelihood Resilience: 5 key insights from the Resilience Academy and 5 recommendations for the 5-year work plan on Loss and Damage. United Nations University – Institute for Environment and Human Security. Policy Brief 10. DOI: 10.13140/RG.2.2.25250.63689

Quandt, A. 2013. Climate-Smart, Ecosystem-Friendly Livelihood Options in Isiolo County, Kenya. Prepared for the Partners for Resilience Project, Red Cross/Red Crescent Climate Centre. Available at: https://www.researchgate.net/publication/283928369_Partners_for_Resilience_Livelihoods_Assessment_Report_-_August_2013

Manuscripts in Preparation

Quandt, A., Salerno, J., Neff, J., Herrick, J., Hartter, J., Baird, T., McCabe, J. T., and E. Xu. Impacts of mobile phone ownership by women on agriculture in Iringa, Tanzania

O’Loughlin, J., Linke, A., McCabe, J.T., **Quandt, A.,** Witmer, F. and J. Tir.

Climate/environmental change, vulnerability, food insecurity, and adaptation in Kenya

Quandt, A., Kimiti, D., and J. Herrick. The Land-Potential Knowledge System (LandPKS): A mobile application for wildlife conservation

Salley, S.W., Herrick, J.E., **Quandt, A.,** and J. Maynard. A citizen soil science toolkit

Funding

External Grants Funded

2018 - 20 Co-PI (PI Terri Schulz, The Nature Conservancy of Colorado). *Expanding and testing the utility of Land Potential Knowledge System (LandPKS) – an open source grazing land evaluation tool for ranchers*. Natural Resources Conservation Service Conservation Innovation Grants, **\$427,164**

2018 - 20 Co-PI (Co-PI’s J.W. Karl, E. Winford, A. Hulet, and J. Herrick), *Training on monitoring techniques to support outcome-based management on private and public rangeland*. Western SARE (Sustainable Agriculture Research and Education) Competitive Grants, Professional Development Program, USDA, **\$70,972**

2014 - 15 Co-PI (J.T. McCabe, Co-PI), *Building livelihood resilience in semi-arid Kenya: what role does agroforestry play?* US Borlaug Fellows in Global Food Security Graduate Research Grant, **\$19,995**

Internal Grants and Awards

- 2017-18 Research Assistant (J. Hartter, University of Colorado Boulder, PI) Improving access to agricultural knowledge through mobile phones: exploring the potential for technology adoption in Africa. Innovative Seed Grant Competition, **\$50,000**
- 2017 Graduate School Travel Grant, funded by the University of Colorado Boulder, **\$300**
- 2016 Environmental Studies Travel Grant, funded by the University of Colorado Boulder, **\$800**
- 2016 Graduate School Travel Grant, funded by the University of Colorado Boulder, **\$300**
- 2014 Graduate Student International Travel Grant, funded by the University of Colorado Boulder, **\$500**
- 2014 Environmental Studies Travel Grant, funded by the University of Colorado Boulder, **\$1,000**
- 2013 University of Colorado at Boulder Beverly Sears Graduate Student Research Grant, funded by the University of Colorado Boulder, **\$1,000**
- 2009 Presidents Emergency Plan for AIDS Relief Grant, USAID, **\$1,000**
- 2008 Peace Corps Partnership Grant, **\$7,000**

Presentations and Posters

- 2019 *LandPKS for Developing Communities*. University of Colorado, Engineering for Developing Communities course. Spring 2019 term, April 16, 2018 (Invited)
- 2018 *Drought in Kenya: An Anthropological Perspective*. University of Colorado, Natural Hazards Course, Summer 2018 Term, July 23, 2018 (Invited)
- 2018 *LandPKS: A New Mobile Tool for Sustainable Land-Use Planning and Management*. Paper presented at the 2018 World Bank Conference on Land and Poverty. The World Bank – Washington, D.C., March 19-23, 2018.
- 2018 *Land-Potential Knowledge System: Mobile Phone Technology for Sustainable Land Management*. Brown Bag Presentation at the Jornada Experimental Range, New Mexico State University, February 23, 2018 (Invited)
- 2018 *The Land-Potential Knowledge System (LandPKS): Mobile Phone Technology for Biodiversity Conservation and Sustainable Land Management*. Lecture presented at the Las Cruces Museum of Nature and Science, February 21, 2018 (Invited)
- 2017 *Agroforestry and agricultural diversity*. Lecture presented in Sustainable Agriculture course at the University of Colorado Boulder, October 26, 2017 (Invited)
- 2017 *The Land-Potential Knowledge System (LandPKS): Mobile apps for sustainable land management*. Paper presented at the Resilience Academy, Woodrow Wilson Center, Washington, DC, Oct 19, 2017 (Invited). Video of presentation available at: <https://www.youtube.com/watch?v=R4S2IuT3VwY> (Between 35 and 43 minutes)
- 2017 *Building livelihood resilience in semi-arid Kenya: what is the role of agroforestry?* Jornada Experimental Range Lecture Series, New Mexico State University (invited)
- 2017 *If and how does agroforestry build livelihood resilience to floods and droughts in semi-arid Kenya*. Paper presented at the Environmental Studies Colloquium Series, University of Colorado Boulder April 3, 2017 (Invited)

- 2017 *Drought: a challenge to livelihoods, sustainability, and resilience.* Paper presented at the Society of Applied Anthropology Annual Meeting, March 30, 2017 (invited)
- 2017 *Building livelihood resilience: What role does agroforestry play?* Paper presented at the Society of Applied Anthropology Annual Meeting, March 30, 2017
- 2016 *Building livelihood resilience to floods and droughts in Kenya: What role does agroforestry play?* Poster presented at the 3rd Annual Institute of Behavioral Science Student Research Symposium, University of Colorado at Boulder
- 2015 *Ecosystem services and loss and damage to climate change.* Workshop session at the Resilience Academy – Enhancing Resilience to Minimize Loss and Damage from Climate Change: Providing Knowledge for the UNFCCC, Bangladesh
- 2015 *Agroforestry and livelihood resilience in Isiolo, Kenya.* Paper presented at the Workshop on Climate/Environment and Insecurity in Kenya (invited)
- 2013 *Climate-smart, ecosystem-friendly livelihood options in Isiolo County, Kenya.* University of Colorado at Boulder, Environmental Studies Colloquium (invited)
- 2013 *Climate-smart, ecosystem-friendly livelihood options in Isiolo County, Kenya.* University of Colorado at Boulder, Center for Science and Technology Policy Research Lunchtime Series (invited)

Teaching and Mentoring

Teaching Interests

Agroforestry – A Global Perspective; Human-Environment Systems; Human Ecology; Introduction to Environmental Issues; Conservation, Protected Areas, and Indigenous Peoples; Sustainable Food Systems; Social Science Research Methods

Courses Taught as Instructor of Record

- 2017 ENVS 4100-001/ GEOG 4100-003: Special Topics in Environmental Studies/Geography - Agroforestry: A Global Perspective
- 2013-14 WRTG 1150: First-Year Writing and Rhetoric

Courses Taught for BTEC Certification (Business and Technology Council)

- 2011-12 Leadership Skills and Training
- BTEC is a career-based qualification designed to give students the skills they need to move onto higher education or go straight into employment.

Teaching Assistant

- 2016 ENVS 3525-002: Environmental Studies Cornerstone – Sustainable Food Systems
- 2013 ENVS 2000: Applied Ecology for Environmental Studies
- 2013 ENVS 3621: Energy, Policy, and Society
- 2006 University of Montana: Introduction to Recreation Management
- 2005 University of Puget Sound: Genetics

Grader

- 2012 Climate Change Policy, University of Colorado Boulder
2009 Wilderness Lecture Series, University of Montana

Athletics Department Tutor

- 2016 (Fall) World Regional Geography; Our Changing Environment; General Biology: Introduction to Environmental Studies; Environment – Society Geography
2016 (Spring) World Regional Geography; Environment and Society Geography; General Biology; Introduction to Environmental Studies; Inequality, Democracy and the Environment

Pedagogical Development

- 2017 **Certificate of College Teaching.** Awarded by the Graduate Teacher Program, University Colorado Boulder. Attended 20 workshops, 2 credits of a discipline specific pedagogy course, two videotape consultations, a faculty evaluation, and wrote a teaching portfolio (certificate and portfolio available upon request)
2014 **Pedagogy for Environmental Studies, Geography, and Ecology.** Two credit course on innovative teaching techniques and teaching to a diversity of students.
2014 **WRTG 5050: Graduate Studies for Teaching Writing and Rhetoric.** Two credit course focused on how to teaching university writing skills.
2012 **Environmental Studies Undergraduate Learning Objectives.** Assisted to develop the learning objectives for undergraduates in the Environmental Studies Program at the University of Colorado at Boulder

Academic Mentoring

- 2018 Advised and supervised a high school student on data analysis for household survey work conducted in Tanzania
2017 Advised and directly oversaw two Masters of the Environment students at the University of Colorado Boulder on quantitative data analysis
2017 Taught and supervised Tanzanian undergraduate students on household survey methods
2015 Taught and supervised 10 Kenyan students on mixed methods social science research including household surveys and qualitative interviews

Other Teaching Activities

- 2017 Developed and currently manage an online LandPKS training module (<http://learn.landpotential.org/>)
2017 Developed and currently leading implementation of the LandPKS One-Day Training in collaboration with the Regional Centre for Mapping Resources for Development (RCMRD) in Nairobi, Kenya
2017 Taught a half-day LandPKS training for Peace Corps Volunteers in Morogoro, Tanzania

Fellowships

- 2017 - 19 SILC (Sustainability Innovation Lab at Colorado) Fellow, University of Colorado Boulder
- 2015 - 17 Resilience Academy Delegate – Enhancing Resilience to Minimize Loss and Damage from Climate Change: Providing Knowledge for the UNFCCC. Three year workshop (2015 Bangladesh, 2016 Germany, 2017 New York) funded by Munich Re Foundation, International Centre for Climate Change and Development (ICCCAD), and the United Nations University (UNU-EHS)
- 2014 - 15 US Borlaug Fellow in Global Food Security Research, USAID Feed the Future
- 2014 - 15 Research Fellow, World Agroforestry Centre, Nairobi, Kenya

Service

Committees

- 2015-16 Happy Hour Coordinator, Environmental Studies Program, University of Colorado at Boulder
- 2012-14 Sports Viewing Committee Member, Environmental Students Program, University of Colorado at Boulder
- 2006-7 Graduate student group Vice-President, Department of Society and Conservation, University of Montana

Reviewer

Nature Climate Change (1); Human Ecology (4); Climatic Change (4); Society and Natural Resources (2); Sustainability (2); International Journal of Disaster Risk Reduction (2) Environment, Development and Sustainability (1); World Development (1); Forest Policy and Economics (1); Journal of Political Ecology (1); Climate and Development (1); Resilience: International Policies, Practices, and Discourses (1); Mountain Research and Development (1); The Open Agriculture Journal (1); Climate Policy (1); Journal of Rural and Community Development (1); Natural Resources Forum: A United Nations Sustainable Development Journal (1)

External reviewer for The Bill & Melinda Gates Foundation Grand Challenge Explorations Program, 2018

Professional Memberships

Society for Applied Anthropology
International Sustainable Development Research Society
National Peace Corps Association

Professional Work Experience

- 2010 - **Founder and Director**, Barjomot Scholarship Foundation
- Foundation provides scholarship to secondary school for students in Barjomot, Tanzania
- 2017-19 **Global Coordinator**, Land-Potential Knowledge System
- Lead adoption and user-centered design of mobile apps for sustainable agricultural development, biodiversity conservation, and land management
- 2013 **Junior Researcher**, Red Cross/Red Crescent Climate Centre, Isiolo, Kenya
- Created, conducted, and analyzed a climate-smart, ecosystem-friendly livelihoods survey
- 2012 **Natural Programs Director**, Camp Namanu Campfire Camp, Oregon
- 2011-12 **Base Manager**, Thai Elephant Conservation Project, Global Vision International, Huay Pakoot, Thailand
- Managed daily logistics, volunteer-led data collection, and community-based projects
- 2007-9 **United States Peace Corp Volunteer**, Tanzania
- Worked as a rural extension agent in the Environmental Education and Sustainable Agriculture in Rural Communities Program

Skills

Computer Programs

Microsoft Office (Word, Excel, PowerPoint)
Stata 14
ArcGIS 10.3
NVivo 10
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Research Skills

Social science mixed-methods
Quantitative Surveys
Qualitative interviews
Focus groups
Archival research
Key informant interviews
Participant observation

Languages

English – Native speaker
Swahili – Advanced conversational
Spanish – Beginner