

## **Amy Quandt, Ph.D.**

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Storm Hall 306C

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### **Education**

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- 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**

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- 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

### **Fellowships**

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- 2020 - 2025      Global Young Academy Member ([globalyoungacademy.net](http://globalyoungacademy.net))
- 2019      Grants and Research Enterprise Writing Fellowship (GREW), San Diego State University
- 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

## Publications

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### *Peer reviewed works published or in press*

14. **Quandt, A.** 2020. Contribution of agroforestry trees for climate change adaptation: narratives from smallholder farmers in Isiolo, Kenya. *Agroforestry Systems*: 1-12. doi: 10.1007/s10457-020-00535-0
13. **Quandt, A.**, Salerno, J., Neff, J., Baird, T. Herrick, J., McCabe, J. T., Xu, E., and J. Hartter. 2020. Mobile phone use is associated with higher smallholder agricultural productivity in Tanzania, East Africa. *PLoS ONE* 15(8): e0237337. doi: 10.1371/journal.pone.0237337
12. **Quandt, A.**, Herrick, J., Peacock, G., Salley, S., Buni, A., Mkalawa, C., and J. Neff. 2020. A standardized land capability classification system for land evaluation using mobile phone technology. *Journal of Soil and Water Conservation* 75(3): 1-11. doi: 10.2489/jswc.2020.00023
11. Abeje, M., Tsunekawa, A., Haregeweyn, N., Nigussie, Z., Adgo, E., Ayalew, Z., Tsubo, M., Elias, A., Berihun, D., **Quandt, A.**, Berihun, M., and T. Masunaga. 2019. Communities' livelihood vulnerability to climate variability in Ethiopia. *Sustainability* 11(22): 6302.
10. 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.
9. **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
8. **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.
7. **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.
6. **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
5. **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.
4. **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
3. **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
2. **Quandt, A.** 2016. Towards integrating political ecology into resilience-based resource management. *Resources* 5(4): 31. doi: 10.3390/resources5040031.
1. **Quandt, A.**, and A. Kimathi. 2015. 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**. 2020. Chapter 11 Drought: A challenge to livelihoods, sustainability, and resilience. In: Angry Earth: Disaster in an Anthropological Perspective, 2<sup>nd</sup> edition (edited by A. Oliver-Smith, and S.M. Hoffman). New York, NY: Routledge. doi: 10.4324/9781315298917-26

### *Works under review*

**Quandt, A.** Coping with drought: narratives from smallholder farmers in semi-arid Kenya  
**Quandt, A.** Can agroforestry improve food security on farms impacted by wildlife crop raiding?  
**Quandt, A.,** Salerno, J., Neff, J., Herrick, J., Harter, J., Baird, T., McCabe, J. T., and E. Xu.  
Mobile phone use and agricultural impacts among female smallholder farmers in Tanzania  
Awazi, N.P., and **A. Quandt**. Livelihood resilience to environmental changes in Kenya and Cameroon: a comparative analysis.

### *Technical Reports, Policy Briefs, and Conference Proceedings*

Irkiso, A.B., Abebe, B.T., Hadgu, K., Abza, T.G., and **A. Quandt**. 2020. Pilot Testing LandPKS Smartphone Application for Local Level Participatory Land Use Planning in Ethiopia. 2020 World Bank Conference on Land and Poverty, The World Bank – Washington, D.C., March 16-20 2020.

International Resource Panel (IRP). 2019. Land Restoration for Achieving the Sustainable Development Goals: An International Resource Panel Think Piece. Herrick, J.E., Abrahamse, T., Abhilash, P.C., Ali, S.H., Alvarez-Torres, P., Barau, A.S., Branquinho, C., Chhatre, A., Chotte, J.L., Cowie, A.L., Davis, K.F., Edrisi, S.A., Fennessy, M.S., Fletcher, S., Flores-Díaz, A.C., Franco, I.B., Ganguli, A.C., Speranza, C.I, Kamar, M.J., Kaudia, A.A., Kimiti, D.W., Luz, A.C., Matos, P., Metternicht, G., Neff, J., Nunes, A., Olaniyi, A.O., Pinho, P., Primmer, E., **Quandt, A.**, Sarkar, P., Scherr, S.J., Singh, A., Sudoi, V., von Maltitz, G.P., Wertz, L., Zeleke, G. A think piece of the International Resource Panel. United Nations Environment Programme, Nairobi, Kenya.

**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](https://www.researchgate.net/publication/283928369_Partners_for_Resilience_Livelihoods_Assessment_Report_-_August_2013)

## **Funding**

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### *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*

- 2020- PI, *The agricultural resilience of the Imperial Valley: historical, current, and future perspectives*. University Grants Program, San Diego State University, **\$9,965**
- 2019 Grants and Research Enterprise Writing Fellowship (GREW), San Diego State University, **\$3,000**
- 2019 Shared Vision Grant, funded by the Department of Geography, San Diego State University, **\$700**
- 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**

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- 2019 *Perceptions of Drought in Kenya*. San Diego State University, Introduction to Human Geography course. Fall 2019 term, November 20, 2019 (Invited).
- 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=R4S2luT3VwY> (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 3<sup>rd</sup> 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**

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### ***Courses Taught as Instructor of Record***

- 2021- GEOG 496: Human Dimensions of Climate Change
- 2020- GEOG 370 Conservation Science and Policy
- 2020 GEOG 590: CAL Experience: Human-Environmental Aspects of COVID-19 (Co-taught course)
- 2017 ENV5 4100-001/ GEOG 4100-003: Special Topics in Environmental Studies/Geography - Agroforestry: A Global Perspective
- 2013-14 WRTG 1150: First-Year Writing and Rhetoric

### ***Graduate Students Advised***

Phevee Paderes, Geography, SDSU – ongoing  
 Kayla Gorman, Geography, SDSU - ongoing

### ***Graduate Student Advisory Committees***

Gabriela Morales, MS Geography, SDSU - ongoing

### ***Ph.D. Dissertation Examiner***

Dennis Rweyemamu, Lincoln University, New Zealand.  
 “Understanding resilience and conflict in a changing climate among agropastoralist and farming communities in Morogoro region, Tanzania”  
 Ph.D. Examiner, 2019

### ***Teaching Assistant***

- 2016 ENV5 3525-002: Environmental Studies Cornerstone – Sustainable Food Systems
- 2013 ENV5 2000: Applied Ecology for Environmental Studies
- 2013 ENV5 3621: Energy, Policy, and Society
- 2006 University of Montana: Introduction to Recreation Management
- 2005 University of Puget Sound: Genetics

### ***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 managed an online LandPKS training module (<http://learn.landpotential.org/>)
- 2017 Developed and led 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

## **Service**

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### ***Committees***

- 2020- Scholarship Committee, Department of Geography, San Diego State University
- 2020- MA/MS Committee, Department of Geography, San Diego State University
- 2020- Mundt Cambodia Fellowship Review Committee, College of Arts and Letters, San Diego State University
- 2019- Diversity Committee, Department of Geography, San Diego State University
- 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); WIREs Climate Change (1); Human Ecology (4); Climatic Change (4); International Journal of Disaster Risk Reduction (4); Society and Natural Resources (2); Sustainability (2); Natural Resources Forum: A United Nations Sustainable Development Journal (2); Climate and Development (2); Environment, Development and Sustainability (2); World Development (1); Forest Policy and Economics (1); Journal of Political Ecology (1); PLOS ONE (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); Food Security (1)*

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

*Ad Hoc Reviewer for National Science Foundation, Decision, Risk, and Management Sciences Program, 2019*

*Reviewer for National Science Foundation, Graduate Research Fellowship Program, 2019-20*

*Reviewer for student applications to the Mundt Peace Fellowships in Cambodia, San Diego State University, 2020*

*Grant Reviewer for the International Foundation for Science – IFS Sweden, 2020*

### **Professional Memberships**

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

### **Professional Work Experience**

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- 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**

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### ***Computer Programs***

Microsoft Office (Word, Excel, PowerPoint)  
Stata  
ArcGIS  
NVivo  
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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