

CURRICULUM VITAE

EVAN H. GIRVETZ

International Center for Tropical Agriculture (CIAT)
Regional Office for Africa, Kasarani Rd., ICIPE Complex,
P.O. Box 823-00621, Nairobi, Kenya

Email: e.girvetz@cgiar.org **Phone:** +254 (0) 726 983 134

- Globally recognized leader, manager and speaker on conservation, climate, and agriculture
- 15+ years of experience in conservation and agricultural work globally
- 10+ years of strategic program development and implementation experience in Africa
- Africa regional experience managing a dynamic team of 15+ African and international staff
- \$ 8+ million in programmatic funds managed, focused on climate, conservation and agriculture
- Strong partnership networks with public, private and civil society institutions
- Extensive engagement experience with governments, African Union-NEPAD, and RECs across Africa
- 40+ Peer reviewed publications and co-edited climate-smart agriculture (CSA) book focused on Africa
- Effective media communicator with research and opinion featured in top media outlets including: San Francisco Chronicle, Seattle Times, New Scientist magazine and Financial Times of London

RECENT POSITIONS

Principal Scientist and Global Team Leader, 2020-present

Alliance of Bioversity International and CIAT, Finance and Investments for Climate Action

Principal Scientist and Team Leader, 2019

CIAT, Decision & Policy Analysis Program, Africa Region

Global Co-Leader, 2018–2019

CIAT, Global Strategic Initiative on Agricultural Risk Management

Senior Scientist and Team Leader, 2013–2018

CIAT, Decision & Policy Analysis Program, Africa Region

Affiliate Assistant Professor, 2009–present

University of Washington, School of Environmental and Forest Sciences

Senior Scientist, 2009–2012

The Nature Conservancy, Global Climate Change Program

EDUCATION

Ph.D., Ecology, 2007

University of California (UC) Davis

B.S. Evolution and Ecology, Minor in Mathematics; Minor in Philosophy, 1998

UC Davis

PUBLICATIONS

Ng'ang'a, S.K., D.A. Jalang'o, **E.H. Girvetz**. 2020. Adoption of technologies that enhance soil carbon sequestration in East Africa. What influence farmers' decision? *International Soil and Water Conservation Research*. 8(1): 90-101

Kanyenji, G.M., S.K. Ng'ang'a, **E.H. Girvetz**. 2020. Survey data on factors that influence the adoption of soil carbon enhancing practices in Western Kenya. *Scientific Data*. 7: 37.

Nguru, W.M., F. Gelaw, G.M. Kanyenji, **E.H. Girvetz**. 2020 Survey data on factors that constrain the adoption of soil carbon enhancing technologies in Ethiopia. *Scientific Data*. 7: 93.

Ng'ang'a, S.K., D.A. Jalang'o, **E.H. Girvetz**. 2019. Soil carbon enhancing practices: a systematic review of barriers and enablers of adoption. *SN Appl. Sci*. 1, 1726.

Dinesh, D., R. Zougmore, J. Vervoort, E. Totin, P. Thornton, D. Solomon, P. Shirsath, V. Pede, I. Lopez Noriega, P. Läderach, J. Körner, D. Hegger, **E. Girvetz**, A. Friis, P. Driessen, B. Campbell. 2018. Facilitating change for climate-smart agriculture through science-policy engagement. *Sustainability*. 10(8): 2616.

Wood, S.L.R., S.K. Jones, J.A. Johnson, K.A. Brauman, R. Chaplin-Kramer, A. Fremier, **E. Girvetz**, L.J. Gordon, C.V. Kappel, L. Mandle, M. Mulligan, P. O'farrell, W.K. Smith, L. Willemsen, W. Zhang, and F.A. DeClerck. 2018. Distilling the role of ecosystem services in the Sustainable Development Goals. *Ecosystem Services*. 29: 70-82.

Ng'ang'a, S.K., Mwangi, C.M., C. Mwangera, I. Kinyua, A. Notenbaert, and **E. Girvetz**. 2018. Survey data on cost and benefits of climate smart agricultural technologies in western Kenya. *Data in Brief*. 16: 261-265.

Girvetz, E.H., C. Corner-Dolloff, C. Lamanna, and T. S. Rosenstock. 2017. "CSA-Plan": Strategies to put CSA into practice. *Agriculture for Development*. 30: 12-16.

Alam, M.J., J.L. Goodall, and **E.H. Girvetz**. 2017. The Impact of Projected Climate Change Scenarios on Nitrogen Yield at a Regional Scale for the Contiguous United States. *Journal of the American Water Resources Association*. 53(4): 854-870.

DeClerck, F.A.J., S.K. Jones, S. Attwood, D. Bossio, **E. Girvetz**, B. Chaplin-Kramer, E. Enfors, A.K. Fremier, L.J. Gordon, F. Kizito, I. Lopez Noriega, N. Matthews, M. McCartney, M.

- Meacham, A. Noble, M. Quintero, R. Remans, R. Soppe, L. Willemsen, S.L.R. Wood, W. Zhang. **2016**. Agricultural ecosystems and their services: the vanguard of sustainability? *Current Opinions in Environmental Sustainability*. 23: 92-99.
- Campbell, B.M., S.J. Vermeulen, P.K. Aggarwal, C. Corner-Dolloff, **E. Girvetz**, A.M. Loboguerrero, J. Ramirez-Villegas, T. Rosenstock, L. Sebastian, P. Thornton, E. Wollenberg. **2016**. Reducing risks to food security from climate change. *Global Food Security*. 11: 34-43.
- Xu, H., T.E. Twine, and E.H. Girvetz, **2016**. Climate Change and Maize Yield in Iowa. *PLoS one*. 11(5): e0156083.
- Ummenhofer, C.C., N. Chhetri, **E.H. Girvetz**, H.R. McCarthy, T. Twine, H. Xu, K. Nicholas. **2015**. How climate change affects extremes in maize and wheat yield in two cropping regions. *Journal of Climate*. 28: 4653-4687.
- Reddy, S.M.W., R.I. McDonald, A.S. Maas, A. Rogers, **E.H. Girvetz**, J. Molnar, T. Finley, G. Leathers, J.L. DiMuro. **2015**. Industrialized Watersheds Have Elevated Water Risk and Limited Opportunities to Mitigate Risk through Water Trading. *Water Resources and Industry*. 11: 27-45.
- Reddy, S.W., R.I. McDonald, A. Maas, A. Rogers, **E.H. Girvetz**, J. North, J. Molnar, T. Finley, G. Leathers. **2015**. Finding solutions to water scarcity: A case study of incorporating ecosystem service values into business planning at The Dow Chemical Company's Freeport facility. *Ecosystem Services*. 12: 94-107.
- Girvetz, E.H.**, C. Zganjar. **2014**. Dissecting indices of aridity for assessing the impacts of global climate change. *Climatic Change*. 126: 469-483.
- Girvetz, E.H.**, E. Gray, T.H. Tear, M.A. Brown. **2014**. Bridging climate science to adaptation action in data sparse Tanzania, Africa. *Environmental Conservation*. 14(2): 229-238
- Fremier, A.K., **E.H. Girvetz**, S.E. Greco, A.W. Larsen. **2014**. Quantifying process-based mitigation strategies in historical context: separating multiple cumulative effects on river meander migration. *PLoS ONE*. 9(6): e99736.
- Nelson, E., P. Kareiva, M. Ruckelshaus, K. Arkema, G. Geller, **E.H. Girvetz**, D. Goodrich, V. Matzek, M. Pinsky, W. Reid, M. Saunders, D. Semmens, and H. Tallis. **2013**. Identifying vulnerable ecosystems services due to climate disruption in the United States. *Frontiers in Ecology and the Environment*. 11(9) 483-493.
- McDonald, R.I, **E.H. Girvetz**. **2013**. Climate change induced increase demand for irrigation water in the United States and potential applications. *PLoS One*. 8(6): e65589.
- Roy, S.B., L. Chen, **E.H. Girvetz**, E.P. Maurer, W.B. Mills, T.M. Grieb. **2012**. Projecting water withdrawal and supply for future decades in the U.S. under climate change scenarios. *Environmental Science and Technology*: 46(5): 2545-2556.
- Groves, C.R., E.T. Game, M.G. Anderson, M. Cross, C. Enquist, Z. Ferdana, **E.H. Girvetz**, A. Gondor, K.R. Hall, J. Higgins, R. Marshall, K. Popper, S. Schill, S. Shafer. **2012**.

- Incorporating climate change into systematic conservation planning. *Biodiversity and Conservation*: 21(7): 1651-1671.
- Luedeling, E., **E.H. Girvetz**, M.A. Semenov, and P. Brown. **2011**. Climate change affects winter chill for temperate fruit and nut trees. *PLoS ONE* 6(5): e20155.
- Luedeling, E., K.P. Steinmann, M. Zhang, P.H. Brown, J. Grant, and **E.H. Girvetz**. **2011**. Climate Change effects on walnut pests in California. *Global Change Biology*. 17(1); 228-238.
- Copeland, H.E., S.A. Tessman, L. Roberts, A. Orabona, S. Patla, C.A.F. Enquist, **E.H. Girvetz**, and J. Kiesecker. **2010**. A geospatial assessment on the distribution, condition, and vulnerability of Wyoming's wetlands. *Environmental Indicators* 10(4): 869-879.
- Girvetz, E.H.** **2010**. Removing erosion control projects increases bank swallows (*Riparia riparia*) population viability modeled along the Sacramento River (California, USA). *Biological Conservation* 143(4): 828-838.
- Girvetz, E.H.**, C. Zganjar, S. Shafer, E. Maurer, P. Kareiva, and J.J. Lawler. **2009**. Applied climate-change analysis: The Climate Wizard tool. *PLoS One* 4(12): e8320.
- Girvetz, E.H.** and S.E. Greco. **2009**. Multi-scale predictive habitat suitability modeling based on hierarchically delineated patches: an example for yellow-billed cuckoos nesting in riparian forests, California, USA. *Landscape Ecology* 24: 1315-1329.
- Luedeling, E., M. Zhang, V. Luedeling, **E.H. Girvetz**. **2009**. Sensitivity of winter chill models for fruit and nut trees to climatic changes in California's Central Valley. *Agriculture, Ecosystems and Environment* 133: 23-31.
- Luedeling, E., M. Zhang, and **E.H. Girvetz**. **2009**. Climate changes lead to declining winter chill for fruit and nut trees in California during 1950-2099. *PLoS One* 4(7): e6166.
- Thorne, J.H., P. Huber, **E.H. Girvetz**, J.F. Quinn, M.C. McCoy. **2009**. Integration of regional mitigation assessment and conservation planning. *Ecology and Society* 14: 47.
- Thorne, J.H., **E.H. Girvetz**, M.C. McCoy. **2009**. Evaluating aggregate terrestrial cumulative impacts of road construction projects for advanced regional mitigation. *Environmental Management* 43: 936-948.
- Girvetz, E.H.**, J.H. Thorne, A.M. Berry, and J.A.G. Jaeger. **2008**. Integration of landscape fragmentation analysis into regional planning: a statewide multi-scale case study for California, USA. *Landscape and Urban Planning* 86: 205-218.
- Greco, S.E., **E.H. Girvetz**, E.W. Larsen, J.P. Mann, J.L. Tuil, and C. Lowney. **2008**. Relative elevation topographic surface modelling of a large alluvial river floodplain and applications for the study and management of riparian landscapes. *Landscape Research* 33(4):461-486.
- Girvetz, E.H.**, J.A.G. Jaeger, J.H. Thorne. **2007**. Comment on "Roadless space of the conterminous United States." *Science* 318: 1240b.

- Girvetz, E.H.** and S.E. Greco. **2007**. How to define a patch: a spatial model for hierarchically delineating organism-specific habitat patches. *Landscape Ecology* 22: 1131-1142.
- Foley, J.E., J. Zipser, B. Chomel, **E.H. Girvetz**, P. Foley. **2007**. Modeling plague persistence in host-vector communities in California. *Journal of Wildlife Diseases* 43(3): 408-424.
- Shilling, F.M. and **E.H. Girvetz**. **2007**. Physical and financial barriers to implementing a wildland reserve network. *Landscape and Urban Planning* 80: 165-172.
- Larsen, E.W., **E.H. Girvetz**, and A.K. Fremier. **2007**. Landscape-level conservation planning in alluvial riparian floodplain ecosystems: using geomorphic modeling to avoid conflicts between habitat conservation and human infrastructure. *Landscape and Urban Planning* 79: 338-346.
- Larsen, E.W., A.K. Fremier, and **E. H. Girvetz**. **2006**. Modeling the effects of flow regulation scenarios on river channel migration on the Sacramento River, CA USA. *Journal of the American Water Resources Association* 42: 1063-1075.
- Larsen, E.W., **E.H. Girvetz**, and A.K. Fremier. **2006**. Assessing the effects of alternative setback levee scenarios employing a river meander migration model. *Environmental Management* 37: 880-897.
- Adjemian, J., **E.H. Girvetz**, and J. Foley. **2006**. Analysis of the GARP modeling approach for predicting the distributions of fleas implicated as vectors of plague, *Yersinia pestis*, in California. *Journal of Medical Entomology* 43: 93-103.
- Foley, J.E., S.H. Sokolow, **E.H. Girvetz**, C.W. Foley, and P. Foley. **2005**. Spatial epidemiology of yellow-blotch/band syndrome in *Montastrea* spp. coral in the eastern Yucatan Caribbean. *Hydrobiologia* 548: 33-40.
- Girvetz, E.H.** and F.M. Shilling. **2003**. Decision support for road system analysis and modification on the Tahoe National Forest. *Environmental Management* 32: 218-233.
- Snyder, M.S., **E. Girvetz**, and E.P. Mulder. **2001**. Induction of marine mollusk stress proteins by chemical or physical stress. *Archives of Environmental Contamination and Toxicology* 41: 22-29.

EDITED BOOKS

- Rosenstock, T., A. Nowak, **E. Girvetz**, (Eds.). 2019. The Climate-Smart Agriculture Papers: Investigating the Business of a Productive, Resilient and Low Emission Future. Springer International Publishing. 321 pp. DOI: 10.1007/978-3-319-92798-5

BOOK CHAPTERS

- Girvetz, E.**, J. Ramirez-Villegas, L. Claessens, C. Lamanna, C. Navarro-Racines, A. Nowak, P. Thornton, T.S. Rosenstock. 2019. Future Climate Projections in Africa: Where Are We Headed? In: *The Climate-Smart Agriculture Papers: Investigating the Business of a Productive, Resilient and Low Emission Future*. Springer International Publishing.
- Rosenstock, T.S., D. Rohrbach, A. Nowak, **E. Girvetz**. 2019. An Introduction to the Climate-Smart Agriculture Papers. In: *The Climate-Smart Agriculture Papers: Investigating the Business of a Productive, Resilient and Low Emission Future*. Springer International Publishing.
- Mwongera, C., A. Nowak, A. Notenbaert, S. Grey, J. Osiemo, I. Kinyua, M. Lizarazo, **E. Girvetz**. 2019. Climate-Smart Agricultural Value Chains: Risks and Perspectives. In: *The Climate-Smart Agriculture Papers: Investigating the Business of a Productive, Resilient and Low Emission Future*. Springer International Publishing.
- Lowenstein, F. and **E.H. Girvetz**. 2014. Conservation Practices—Challenges and opportunities in the face of climate change. In: *Handbook of Global Environmental Pollution*. Springer.
- Girvetz, E.H.**, R.I. McDonald, M. Heiner, J. Kiesecker, G. Davaa, C. Pague, M. Durnin, E. Oidov. 2012. Eastern Mongolian grassland steppe. In: *Climate and conservation: Landscape and Seascape Science Planning and Action*. Eds: J.A. Hilty, C.C. Chester, and M.S. Cross. Island Press.
- Cross, M.S., A.M. Schrag, **E.H. Girvetz**, and C.A.F. Enquist. 2012. Landscape and seascape climate change planning and action. In: *Climate and conservation: Landscape and Seascape Science Planning and Action*. Eds: J.A. Hilty, C.C. Chester, and M.S. Cross. Island Press.
- Lawler, J.J., H. Stafford, **E.H. Girvetz**. 2012. Martens and Fishers in a changing climate. In: *biology and conservation of Martens, Sables and Fishers: A New Synthesis*. Eds: K.B. Aubry, W.J. Zielinski, M.G. Raphael, G. Proulx, and S.W. Buskirk. Cornell University Press.

RECENT TEACHING EXPERIENCE

Guest lecturer, 2010-2019

International Seminar on Climate Change and Natural Resources Management. United States Forest Service International Programs.

Co-Instructor, 2013

Climate Change and Ecosystem Services. School of Environmental and Forest Sciences, University of Washington.

Guest Lecturer, 2008-2012

Introduction to Geographic Information Systems, School of Environmental and Forest Sciences, University of Washington.

Guest Lecturer, 2008-2011

Advanced Landscape Ecology, School of Environmental and Forest Sciences, University of Washington.

Associate Instructor, 2009

Introduction to R Programming. School of Aquatic and Fishery Sciences, University of Washington.

DIRECT FUNDRAISING (2015-2019)

EC-IFAD and CCAFS W1/W2, 2019-2021

Business models for scaling climate smart agriculture and Food Security. **\$296,000**

CGIAR, 2019-2021

Climate Change Agriculture and Food Security (CCAFS) Partnerships for Scaling Climate Smart Agriculture Phase 2. **\$675,000**

World Bank, 2019-2020

Developing a Risk Financing tool for Agriculture and Food Security. **\$298,000**

GIZ, 2019-2020

Green Innovation Centre Development of Value Chain Climate Risk Profiles for Climate Adaptation. **€300,000**

CGIAR Big Data Platform Inspire Challenge, 2019-2020

Let it Rain: Gamifying Weather Information and Farmer Engagement. **\$100,000**

John Deere, 2019-2020

Tractor-supported Climate-Smart Agriculture for African Smallholder Farmers. **\$100,000**

World Bank, 2019

Development of a Climate-Smart Agriculture Investment Plan for the Operationalization of NDCs in Ghana & Burkina Faso. **\$238,845**

U.S. Department of Agriculture Foreign Agricultural Service, 2018-2019

USDA FAS EC-LEDS Phase II: Enhancing Kenyan Capacity for Resilient Agriculture Planning and Programming in Kenya. **\$120,000**

CGIAR Climate Change Agriculture and Food Security (CCAFS), 2015-2018

Partnerships for Scaling Climate Smart Agriculture. **\$900,000**

World Bank, 2018

Climate Smart Agriculture Prioritization Framework for Cote d'Ivoire and Mali. **\$221,428**

BMZ, 2017-2019

Scaling up soil carbon enhancement interventions for food security and climate across complex landscapes in Kenya and Ethiopia. **€1,200,000**

World Bank, 2017

Productive Diversification in African Agriculture and Effects on Resilience and Nutrition. **\$98,783**

Government of Kenya, 2016-2017

Design of Climate Risk Profiles for 31 Kenyan Counties. **\$930,000**

World Bank, 2016-2017

Development of Climate Smart Agriculture Country Profiles in Lesotho, Mozambique, Tanzania, Zambia. **\$140,000**

USAID, 2015-2016

Climate Smart Agriculture Strategic Support for Feed the Future Stakeholders and National Institutions. **\$500,000**

CGIAR Water Land and Ecosystems Innovation Fund, 2015-2016

Finding Common Ground: bringing together ecosystem services, agricultural productivity and smallholder livelihoods in landscape planning. **\$1,575,500**

CGIAR Water Land and Ecosystems, 2015-2016

Laying the foundations for effective landscape-level planning for sustainable development in the SAGCOT corridor: Ithemi agricultural development cluster. **\$176,550**

SELECT RECENT INVITED PLENARY PRESENTATIONS

IFAD Smallholder and Agri-SME Finance and Investment Network Plenary, New Delhi, 2019.

Adaptation of African Agriculture 2nd Ministerial Forum, Marrakech, 2019.

African Agri-finance Forum, Nairobi, 2019

UNFCCC Climate-Smart Agriculture Side-events, Paris, 2015; Marrakech, 2016; Bonn, 2017; Katowice, 2018, Madrid, 2019.

African Climate-Smart Agriculture Summit, Nairobi, 2018,

Africa CSA Alliance Annual Forum, Lusaka, 2015; Nairobi, 2017; Dakar, 2019.

Global CSA Science Conference, Johannesburg, 2017

PROFESSIONAL SERVICE

Invited Judge, SwissRe Entrepreneurs for Resilience Award, 2019-2020.

Steering Committee Member, World Overview of Conservation Approaches and Technologies (WOCAT), 2016-2019.

Steering Committee Member, Africa CSA Alliance, 2015-2018.

Manuscript reviewer for: American Naturalist, Ecological Indicators, Ecology and Society, and Proceeding of the National Academy of Sciences United States.