Owen Cortner

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EDUCATION AND TRAINING

2018-2023 Ph.D., Environmental Systems Science, Environmental Policy Lab

ETH Zürich, Switzerland

Advisor: Dr. Rachael D. Garrett

Dissertation: "Collectives to capital: Institutional, forest, and farm transitions

in Georgia"

2013-2016 M.S., International Agricultural Development, Specialization in Sustainable Livestock Production

University of California, Davis, CA

2006-2011 B.S., Environmental Science, Emphasis Water Resources, Minor in Mathematics, *Distinction in University Honors*

New Mexico State University, Las Cruces, NM

Chile yield decline field and lab work, Soil Microbiology Lab

PROFESSIONAL EXPERIENCE

- 2023- **Postdoctoral Associate**, Yale School of the Environment, New Haven, CT Study of Politics and Institutions with Remote Environmental Sensing lab
 - Combine social, economic, and environmental data to analyze carbon sequestration and livelihoods in Brazil
 - Manage project funded by the Yale Center for Natural Carbon Capture
 - Cataloging Jurisdictional REDD+ policies for carbon credit generation
 - Mentor four doctoral students in remote sensing & policy analysis

2018-2019 Doctoral Researcher, Boston University, Boston, MA

Department of Earth & Environment

- Conducted research on forest and agricultural issues in Georgia and other Caucasus countries under the supervision of Professor Rachael Garrett.
 Transferred at end of first year to ETH Zürich with advisor
- Planned and undertook fieldwork across central and western Georgia. Interviewed key informants including government officials in forest and environmental agencies, farmers, foresters, and academics

2018 **Pre-doctoral Fellow**, Boston University, Boston, MA Global Development Policy Center

- Researched the role of blockchain technology in agricultural supply chains
- Organized the Center's inaugural land use and livelihoods workshop, including invitations to scientists, scholars, and graduate students from 10 institutions such as Harvard, the World Bank, and the Environmental Defense Fund

2017 Intern, foris.io, Oakland, CA (remote)

- Set up initial database for precision agriculture start-up on IBM Watson
- Assisted with go-to-market strategy planning with company CEO

2017 Research Analyst, Food & Agriculture, Datu Research, Durham, NC

- Pinpointed gaps in cover crop economics research resulting in a successful strategic pivot for a large foundation
- Co-authored a technical memo, "Sustainable agriculture in Cuba: Status, challenges, and opportunities" to build a strong economic strategy for land-based conservation for an environmental NGO
- Established a \$1,000 scholarship for graduate students in environmental data science to attend Soil and Water Conservation Society meeting
- Analyzed the proposal capture process and expedited the deployment of a novel network visualization tool to prepare the firm to gain new clients
- Directed strategic planning on a successful \$150K proposal to a global NGO to expand their successful projects in public health, education, conflict resolution, and economic development

2014-2017 **Program Analyst, Graduate Student Assistant** USAID Horticulture Innovation Lab, Davis, CA

- Oversaw a \$45K yearly grant program partnering graduate students with NGOs in food-insecure communities. Supported partnerships for fruit & vegetable research to enhance the quality of life in developing nations.
 Led students in conducting trainings and co-developing technologies and practices for better horticultural production
- Spearheaded a \$750K call for proposals for socioeconomic analysis of animal-horticulture systems leading to a project assessing the trade-offs, creating a decision support tool, and building a framework for integrated vegetable-livestock systems in Cambodia
- Reviewed over 50 global horticultural research proposals, including a successful \$1M nutrition project to determine the potential of horticulture

and aquaculture innovations to augment income, consumption, and nutrition for rural families in Bangladesh

- 2013-2015 **Co-investigator**, University of California, Davis
 - Completed a rapid survey of dairy production problems in a rural northern municipality in Nicaragua and proposed a low-cost forage cutting machine for an engineering design class
 - Co-facilitated a workshop in Spanish focused on silage and cattle nutrition to the municipality's top dairy farmers and agricultural extension specialist, boosting the knowledge base and future options for cattle owners
- 2014-2015 **Communications Coordinator**, Research and Innovation Fellowships for Agriculture, UC Davis
- 2012-2013 **Assistant Coordinator, English Teaching Assistant,** U.S. Fulbright Program, Malaysia
 - Managed 75 Fulbright grantees in coordination with the U.S. State Department and Malaysian Ministry of Education
 - Coached 20 grantees in delivering high-quality English and citizen diplomacy programs
 - Implemented English language co-curricular and learning activities for 150 rural primary students

TEACHING

- Guest lecturer, IR 500: Rural Development in the Global South
 "Scale and supporting institutions in rural development" upper division
 international relations course. Invited by Instructor Barry Shelley, Frederick
 S. Pardee School of Global Studies at Boston University. March 25, 2019
- 2014 **Graduate Student Instructor**, International Programs, University of California, Davis, CA
 - Led 16 students from Iwate Agricultural Junior College in Japan through a rigorous one-week program to better understand the livestock value chain in Northern California (Summer course)
- 2014 **Teaching Assistant**, Dept. of Sociology, UC Davis "Sexual Stratification & Politics" upper division course
- Teaching Assistant, Dept. of Environmental Science & Policy, UC Davis "Environmental Impact Assessment" – upper division course
- 2013 **Teaching Assistant**, Student Academic Success Center, UC Davis "American Culture and the University Experience" – introductory course for international students beginning their studies

PEER-REVIEWED PUBLICATIONS

1) Stritih, A., Senf, C., Kuemmerle, T., Munteanu, C., Dzadzamia, L., Stritih, J., Matijašić, D., Cortner, O., Seidl, R. 2024. "Same, but different: similar states of forest structure in temperate mountain regions of Europe despite different social-ecological forest disturbance regimes." In press. <u>Landscape Ecology</u>.

- 2) **Cortner, O.**, Chen, S., Olofsson, P., Gollnow, F., Torchinava, P., Garrett, R.D. 2024. "Exploring natural and social drivers of forest degradation in post-Soviet Georgia." <u>Global Environmental Change</u>, 84: 102775. https://doi.org/10.1016/j.gloenvcha.2023.102775
- 3) Garrett, R.D., Ryschawy, J., Bell, L.W., **Cortner, O**., Ferreira, J., Garik, A.V.N., Gil, J.D.B., Klerkx, L., Moraine, M., Peterson, C.A., dos Reis, J.C., and Valentim, J.F. (2020). "Drivers of decoupling and recoupling of crop and livestock systems at farm and territorial scales." <u>Ecology and Society</u> 25(1):24. https://doi.org/10.5751/ES-11412-250124
- 4) **Cortner, O.**, Garrett, R.D., Valentim, J.F., Ferreira, J., Niles, M.T, Reis, J., and Gil, J. (2019). "Perceptions of integrated crop-livestock systems for sustainable intensification in the Brazilian Amazon." <u>Land Use Policy</u>, 82: 841-853. https://doi.org/10.1016/j.landusepol.2019.01.006
- 5) Garrett, R.D., Niles, M.T., Gil, J.D.B., Gaudin, A., Chaplin-Kramer, R., Assmann, A., Assmann, T., Brewer, K., de Faccio Carvalho, P. C., **Cortner, O.**, Dynes, R., Garbach, K., Kebreab, E., Mueller, N., Peterson, C., Reis, J. C., Snow, V., and Valentim, J. (2017). "Social and ecological analysis of integrated crop livestock systems: Current knowledge and remaining uncertainty." <u>Agricultural Systems</u>, 155: 136–146. https://doi.org/10.1016/j.agsy.2017.05.003

PEER-REVIEWED PUBLICATIONS IN REVIEW/REVISION

Cortner, O., Wuepper, D., Gollnow, F., Stigler, M., Torchinava, P., Garrett, R. D. "Effects of varied political institutions and armed conflict on forest degradation in the Caucasus." In review at <u>Forest Policy and Economics.</u>

Gollnow, F., **Cortner, O.**, Chen, S., Olofsson, P., Garrett, R. D. "Georgia's potentials for sustainable intensification, increasing food security and rural incomes." In review at <u>Environmental Research: Food Systems</u>.

PRESENTATIONS AND POSTERS

1) Forthcoming: Accepted abstract "Effects of shifting political institutions and armed conflict on forest degradation in the Caucasus" for full oral presentation at Global Land Programme's 5th Open Science Meeting, Oaxaca, Mexico. November 4-8, 2024

2) "Institutions and their effects on land cover and land use change in Georgia." Political Economy of Climate & Environment conference. Los Angeles, CA. August 30, 2023.

- 3) "Forest degradation drivers in post-Soviet Georgian mountain landscapes." International Mountain Conference. Focus Session: Science-based pathways to sustainability in mountains. Innsbruck, Austria. September 13, 2022
- 4) "Forest degradation in Georgia: Social and biophysical drivers." Bratislava Conference on Earth System Governance. Panel on conservation governance and institutions. Virtual. September 7, 2021
- 5) "Collectives to capital: Forest, farm, and finance transitions in Georgia." ETH for Development Ph.D. Seminar: Research for Development. Virtual. November 27, 2020
- 6) "What role can blockchain play in improving environmental governance in agricultural supply chains?" Global Land Programme 4th Open Science Meeting. Bern, Switzerland. April 25, 2019
- 7) "Perceptions of integrated crop-livestock systems for sustainable intensification in the Brazilian Amazon". Land Use and Livelihoods Initiative graduate student conference at the Global Development Policy Center at Boston University. December 7, 2018
- 8) "Producer perceptions of farm-level crop-livestock integration". Embrapa and Boston University workshop, "Understanding barriers to the wide-scale adoption of integrated agricultural systems and potential impacts". Belém, PA, Brazil. August 17, 2017
- 9) "Thinking small: Adaptive local management of diverse dairy cattle systems". Poster with Richardson, B. and Short, J. Society for Range Management Annual Meeting; (Sacramento, CA). February 2, 2015

LEADERSHIP & SERVICE

2024 Yale University

- Co-drafted report "Artificial Intelligence at the School of the Environment"
- Presented findings to provost's Yale Task Force on Artificial Intelligence

2019-2023 ETH Zurich

- Co-organized IDANE+ Swiss Science-Policy Dialogue on "Forests, trees, and partnerships – from knowledge to policy." Moderated design thinking process for stakeholders representing government, private, and NGO actors in Swiss forestry. 27 October 2022
- Co-led seminar series on Food Systems Geography, Economics, and Policy which hosted 28+ interdisciplinary talks from external and internal researchers in food, health, agricultural, and environmental policy

2018- **Boston**

- Launched and managed a community children's garden and compost system in Cambridge, MA 2019

- Traveled to Washington, D.C. in 2018 and advocated for agricultural innovation and advancement in New Mexico with Congressional representatives on behalf of the Rocky Mountain Farmers' Union

2015-2016 University of California, Davis

- Acknowledged with the Judy Irwin community award for providing outstanding service to the graduate program in 2015
- Graduate student representative on selection committee for the International Agricultural Development MS
- Intern at Kids in the Garden Program at Ecological Garden/Market Farm

PROFESSIONAL DEVELOPMENT

- Environmental Leadership and Mentoring course, Yale School of the Environment, September 2023-April 2024
- 8th Annual Duck Family Graduate Workshop on Environmental Politics and Governance, University of Washington, May 2022
- Geospatial Data Analysis Short Course, National Socio-Environmental Synthesis Center at University of Maryland, 2019
- UC Cooperative Extension Multi-Species Grazing Academy, Auburn, CA, 2016
- Practicum at UC Davis Meat Lab; kill floor and retail butchering, Davis, CA,
 January-March 2015

LANGUAGES

Portuguese (Conversational), Spanish (Basic)

SOFTWARE

R Statistical Language & RStudio (Intermediate), Python Scripting (Beginner), GitHub (Beginner), Google Earth Engine (Beginner), QGIS (Intermediate), NVivo (Intermediate), Asana Project Management (Beginner)