

ELINOR BENAMI

elinor@vt.edu

<https://elinorbenami.com>

APPOINTMENTS

- Assistant Professor, Virginia Tech** *Aug. 2020 - present*
Agricultural and Applied Economics Department
- Faculty Affiliate** *Feb. 2020 - present*
Stanford Law School's Regulation, Evaluation, and Governance Lab

EDUCATION & TRAINING

- Postdoctoral Scholar, University of California Davis** *Nov. 2018 - Aug. 2020*
Agricultural and Resource Economics Department
Mentor: Michael Carter
- Ph.D., Stanford University** *Fall 2018*
Emmett Interdisciplinary Program in Environment & Resources
Co-Advisors: Marshall Burke and Eric Lambin
Fields: Production Economics and Land System Science
- B.A., The University of North Carolina at Chapel Hill** *May 2010*
Economics, minor Environmental Studies & Sciences
Honors and Distinction, Phi Beta Kappa

PUBLICATIONS & PRESENTATIONS

Academic Manuscripts

- Benami, E., Carter, M. R. *accepted and in production, Applied Economic Perspectives and Policy*. “Can Digital Technologies Reshape Rural Finance? Implications for Credit, Insurance, and Saving”
- Benami, E.*, Zhenong J.*, Carter M.R., Kenduiwo, B., Ghosh A., Hobbs, A.W., Hijmans R., and Lobell, D. *accepted and in production, Nature Reviews Earth & Environment* “Uniting Advances in Remote Sensing, Crop Modeling, & Economics for Agricultural Risk Management.” *Joint first authors.
- Benami, E., Whitaker, R., Anderson, B., Ho D.E., La, V., Lin, H. *Accepted for peer-reviewed proceedings of the ACM Conference on Fairness, Accountability, and Transparency (FAccT)*. “The Distributive Effects of Risk Prediction in Environmental Compliance: Algorithmic Design, Environmental Justice, and Public Policy.”
- Benami, E., Zhenong J., Carter M.R., Hobbs, A.W. *in prep.* “Getting in the Zone: The Risk-Adjusted Welfare Effects of Using Machine Learning vs. Administrative Borders to Define Agricultural Index Insurance Zones.”
- Benami, E., Heilmayr, R. *in prep.* “The Producer Response to Eco-Certification: Evidence from the Quality, Quantity, and Consistency of Brazilian Coffee Production”
- Hino, M.*, Benami, E.*, Brooks, N. October 2018. “Machine learning for environmental monitoring.” *Nature Sustainability*. *Joint first authors
- Benami, E., Curran, L.M., Cochrane, M., Venturieri, A., Swartos, A., Moraes Franco R., Kneipp, J.. March 2018. “Oil palm land conversion in Pará, Brazil, 2006-2014: Evaluating the 2010 Brazilian Sustainable Palm Oil Production Program.” *Environmental Research Letters*. 13(3): 1-12
- Carley, S., Lawrence, S., Brown, A. Nourafshan, A., Benami, E. 2010 August. “Energy-Based Economic Development.” *Renewable and Sustainable Energy Reviews* 15(1): 282-295.

Reports & Other Publications

Benami, E., Ho, D.E., McDonough, A. Feb 2020. *Stanford Institute for Economic Policy Research: Policy Brief*. Innovations for environmental compliance: emerging evidence and opportunities.

J. Zuckerman, J. Deason, E. Benami. 2013. "Targeting Proposition 39 to Help California's Schools Save Energy and Money" Climate Policy Initiative report

E. Benami, J. Wilkinson. 2013. "Using Data Tools to Optimize Indonesia's Land Resources: An Overview of Natural Capital Assessment" Climate Policy Initiative report

B. Pierpont, U. Varadarajan, A. Hobbs, E. Benami. 2013. "Improving Solar Policy: Lessons from the solar leasing boom in California" Climate Policy Initiative report

Selected Presentations

"AI for Clean Water: Modernizing Environmental Enforcement" ECOS Webinar For Practitioners July '20

"Quality Standards & the Role of Earth Observation in Improving Index Insurance" at AGU Dec '19

"Certifications, certainty, & satellites: evaluating programs to enhance farmer welfare & manage risk" at the University of Maryland, College Park Dec '19

"Applications of Machine Learning to Public Problems: The Clean Water Act and beyond." Invited Talk at UC Berkeley Course on Data, Environment and Society Nov '19

"Machine Learning for Environmental Monitoring - from Model to Field Trial" The Workshop on Environmental Economics and Data Science (March 2019) & CA Water Data Science Symposium July '19

"Prospects for Oil Palm Expansion in Latin America" at the University of Leicester July '18

"Recent Oil Palm Development in Brazil: Evaluating Expansion Dynamics and Constraints." Association of Tropical Biology and Conservation Annual Meeting in Kuching, Malaysia. July '18

"Market Based Mechanisms for Environmental Governance: Opportunities & Limits." At Stanford. May '18

"Towards Zero Deforestation Oil Palm? Evaluating the 2010 Sustainable Oil Palm Production Program & Brazilian Oil Palm Development (2006-2014)." *In Portuguese*. At EMBRAPA in Belém, Brazil. Jan '18

"Does Certification Affect Coffee Quality? Evidence from the Brazilian Cerrado." *In Portuguese*. At the Federal University of Lavras, Minas Gerais, Brazil. Jan '18

"Studies in Supply Chain Governance in Tropical Agriculture: the Case of Oil Palm in Pará." *In Portuguese*. At the Brazilian National Institute for Space Research (INPE) in Belém do Pará, Brazil. Dec '16

SELECTED GRANTS, FELLOWSHIPS, & HONORS

NASA Land-Cover and Land-Use Change (LCLUC) Early Career Scientist Grant	2020
Rising Environmental Leaders Program, Stanford University	2018
Preparing Future Professors Program, Stanford University & Foothill College	2018
NSF Dissertation Improvement Grant	2017
Center for Latin American Studies Field Research Grant	2016
E-IPER Summer Graduate Research Grant, Stanford University	2014 - 2017
McGee Levorsen Grant, Stanford School of Earth, Energy, & Environmental Sciences	2014 - 2015
NSF Graduate Research Fellowship	2013 - 2017
Teresa Elms and Robert D. Lindsay IPER Fellowship	2013 - 2014
UNC-Chapel Hill Order of the Golden Fleece	2009
Eve Marie Carson Scholar, UNC-Chapel Hill	2009
Morris K. and Stewart L. Udall Scholar	2008
Congress-Bundestag (U.S. - Germany) Youth Exchange Scholarship	2004

SELECTED PROFESSIONAL EXPERIENCE

Consultant, *Climate Policy Initiative* 06/2016 - 09/2016
Evaluated strategic opportunities for sustainable land use finance investments for philanthropic partners that have disbursed over \$200mil. to address social and environmental impacts of land uses.

Analyst, *Climate Policy Initiative* 12/2010 - 07/2013

- Conducted interviews and co-wrote report on ways that California public schools can target a newly authorized \$2.75bil. state fund for energy efficiency to save energy & money.
- Co-authored report on the role of the leasing model on California's solar deployment and costs.
- Contributed to development of organization's new tropical resource productivity program in Indonesia:
 - Wrote briefs on international tropical forest conservation programs, the eligibility of oil palm as a feedstock under the U.S. Renewable Fuel Standard, and ecosystem assessment processes.
 - Co-drafted \$2mil. grant on joint agricultural production and ecosystem protection project in Borneo.

TEACHING

The Economics of Index Insurance Summer 2019
Co-Instructor of Short Course for Remote Sensing Specialists in Nairobi, Kenya

Environmental Governance Spring 2018
Teaching Assistant, Stanford University

ECON/ESS 106/206: World Food Economy Spring 2016
Teaching Assistant, Stanford University

Honors Seminar on Energy in Transition: De-Carbonizing America Spring 2010
Teaching Assistant, UNC - Chapel Hill

SERVICE & COMMUNITY INVOLVEMENT

Reviewer: *Applied Economic Perspectives and Policy (AEPP)*; *Land Use Policy*; *Climatic Change*; *Environmental Research Letters*; *Conservation Biology*; *Research Grant Reviews for Markets, Risk, & Resilience Innovation Lab*, *Submissions for Agricultural & Applied Economics Assoc. (AAEA) Annual Meeting & the European Assoc. of Agricultural Economists (EAAE)*

Co-convenor at AGU: *Innovations in Risk Transfer Solutions using Earth Observations, Weather Data, Physical Models, and Short to Long Term Forecasts (2020)*; *Advances in remote sensing, machine learning, and economics to improve risk management and evaluate impacts in socio-environmental systems (2019)*

SELECTED GRADUATE LEVEL COURSEWORK

Stanford: Machine Learning for Causal Inference; Microeconomics; Econometric Methods I and II; Remote Sensing of Land; Interdisciplinary Research Design; Accelerated Portuguese III, including presentations on drought & agricultural production in Brazil and the US

UC-Berkeley Agriculture & Resource Economics Department: Analytical Frameworks for Public Policy, Production, & Risk Management

UNC-Chapel Hill: Environmental Economics; Water Resources Management

LANGUAGES*

English, native; **German**, advanced (C1 - C2), scored "very good/sehr gut" on Zertifikat Deutsch für den Beruf; **Brazilian Portuguese**, intermediate - advanced (B2 - C1); **Spanish & French**, basic - intermediate (A2 - B1); **Modern Hebrew & Indonesian**, basic (A1)

*Letter scale corresponds to Common European Framework of Reference for Languages

ADDITIONAL SKILLS

Proficient user of R, ArcGIS, ENVI, STATA, Excel, LaTeX, Google Earth Engine, GitHub

Last updated: December 2020