

Curriculum Vitae

Michael Cox

Associate Professor
Environmental Studies Program
Dartmouth College
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EDUCATION:

2010 Ph.D. Indiana University. Public Affairs.
2003 B.A. Colby College. Philosophy.

EMPLOYMENT:

2018– Associate Professor, Environmental Studies Program, Dartmouth College
2012–2018 Assistant Professor, Environmental Studies Program, Dartmouth College
2010–2012 Postdoctoral Researcher, Workshop in Political Theory and Policy Analysis,
Indiana University

PUBLICATIONS:

Refereed journal articles:

Alexander, S., Jones, K., Bennet, N., Budden, A., **Cox, M.**, Crosas, M., Game, E., Geary, J., Hardy, D., Johnson, J., Karcher, S., Motzer, N., Pittman, J., Randell, H., Silva, J., Pinto da Silva, P., Strasser, C., Strawhacker, C., Stuhl, A., and Weber, W. 2019. Enhancing sustainability science through qualitative data sharing. In press at *Nature Sustainability*.

Cox, M. 2019. The costs are the benefits: challenges and value in field-based education. *The Forum Focus* 5:3: 2-4.

Ban, N., Gurney, G., Marshall, N., Whitney, C., Mills, M., Gelcich, St., Bennet, N., Meehan, M., Butler, C., Ban, S., Tran, T., **Cox, M.**, and Breslow, S. 2019. Well-being outcomes of marine protected areas. *Nature Sustainability* 2: 524–532.

Cox, M., Payton, F., and Pimentel, L. 2019. A gilded trap in Dominican rice farming. *Land Use Policy* 80: 10-20.

Young, O., Webster, D.G., **Cox, M.**, Raakjær, J., Blaxekjær, L., Einarsson, N., Virginia, R., Acheson, J., Bromley, D., Cardwell, E., Carothers, C., Eythórsson, E., Howarth, R., Jentoft, S., McCay, B., McCormack, F., Osherenko, G., Pinkerton, E., vanGinkel, R.J., Wilson, J., Rivers, L., and Wilson, R. 2018. Moving beyond panaceas in fisheries governance. *Proceedings of the National Academies of Sciences* 115 (37): 9065-9073.

Cox, M., Payton, F., Pavlowich, T., Resor, C., Wilson, M. and Dewees, N. 2018. The Dominican fishery of Manzanillo: a coastal system in transition. *Ocean & Coastal Management* 162: 170-180.

Davies, T., Epstein, G., Aguilera, S., Brooks, C., **Cox, M.**, Evans, L., Maxwell, S., Nenadovic, M. and Ban, C. 2018. Assessing trade-offs in marine protected areas. *PLoS One* 13(4).

Schoon, M. and **Cox, M.** 2018. Collaboration, adaptation, and scaling: perspectives on environmental governance for sustainability. *Sustainability* 10(3).

Smith, S., Andersson, K., Cody, C., **Cox, M.** and Ficklin, D. 2017. Responding to a groundwater crisis: the effects of self-imposed economic incentives. *Journal of the Association of Environmental and Resource Economists (JAERE)* 4 (4): 985-1023.

Jupiter, S., Epstein, G., Ban, N., Mangubhai, S., Fox, M. and **Cox, M.** 2017. A social-ecological systems approach to assessing conservation and fisheries outcomes in Fijian locally-managed marine areas. *Society and Natural Resources* 30 (9): 1096-1111.

Ban, N., Davies, T., Aguilera, S., Brooks, C., **Cox, M.**, Epstein, G., Evans, L., Maxwell, S. and Nenadovic, M. 2017. Social and ecological effectiveness of large marine protected areas. *Global Environmental Change* 43: 82-91.

Ban, N. C. and **Cox, M.** 2017. Advancing social-ecological research through teaching: summary, observations, and challenges. *Ecology and Society* 22 (1): 6.

Cox, M. 2016. The pathology of command and control: a formal synthesis. *Ecology and Society* 21(3): 33.

Hammond Wagner, C., **Cox, M.** and Robles, J.L.B. 2016. Pesticide lock-in in small-scale Peruvian agriculture. *Ecological Economics* 129: 72-81.

Cox, M., Arnold, G. and Villamayor-Tomas, S. 2016. Design principles in commons science: a response to "Ostrom, Hardin and the commons" (Araral). *Environmental Science & Policy* 61: 238-242.

Cox, M., Villamayor-Tomas, S., Epstein, G., Evans, L., Ban, N., Fleischman, F., Nenadovic, M. and Garcia-Lopez, G. 2016. Synthesizing theories of natural resource management and governance. *Global Environmental Change* 39: 45-56.

Cox, M., Wilson, M. and Pavlowich, T. 2016. The challenges of local governance: gear-based fragmentation in the Dominican fishery of Buen Hombre. *Marine Policy* 63: 109-117

Wilson, M., Pavlowich, T. and **Cox, M.** 2015. Studying common-pool resources over time: a longitudinal case study of the Buen Hombre fishery in the Dominican Republic. *Ambio* 45 (2): 215-229.

Frey, U. and **Cox, M.** 2015. Building a diagnostic ontology of social-ecological systems. *International Journal of the Commons* 9 (2): 595-618.

Ban, N., Boyd, E., **Cox, M.**, Meek, C., Schoon, M., and Villamayor-Tomas, S. 2015. Linking classroom learning and research to advance ideas about social-ecological resilience. *Ecology and Society* 20 (3): 35.

- Gerst, M., **Cox, M.**, Locke, K., Laser, M. and Kapuscinski, A. 2015. A taxonomic framework for assessing governance challenges and environmental effects of integrated food-energy systems. *Environmental Science & Technology* 49 (2): 743-741.
- Cody, K., Smith, S., **Cox, M.** and Andersson, K. 2015. Emergence of collective action in a groundwater commons: irrigators in the San Luis Valley of Colorado. *Society and Natural Resources* 28 (4): 405-422.
- Cox, M.** 2015. A basic guide for empirical environmental social science. *Ecology and Society* 20 (1): 63.
- Hinkel, J., **Cox, M.**, Schlüter, M., Binder, C. and Falk, T. 2015. A diagnostic procedure for applying the social-ecological systems framework in diverse cases. *Ecology and Society* 20 (1): 32.
- McCord, P., **Cox, M.**, Schmitt-Harsh, M. and Evans, T. 2015. Crop diversification as a smallholder livelihood strategy within semi-arid agricultural systems near Mount Kenya. *Land Use Policy* 42: 738-750.
- Hartberg, Y., **Cox, M.** and Villamayor-Tomas, S. 2014 Supernatural monitoring and sanctioning in community based resource management. *Religion, Brain & Behavior* 6 (2).
- Cox, M.** 2014. Understanding large social-ecological systems: introducing the SESMAD project. *International Journal of the Commons* 8 (2): 265-276.
- Epstein, G., Vogt, J., **Cox, M.** and Shimek, L. 2014. Confronting problems of method in the study of sustainability. *Forest Policy and Economics* 42: 42-50.
- Cox, M.** 2014. Applying a social-ecological system framework to the study of the Taos Valley irrigation system. *Human Ecology* 42 (2): 311-324.
- Cox, M.** 2014. Modern disturbances to a long-lasting community-based resource management system: the Taos Valley acequias. *Global Environmental Change* 24: 213-222.
- Cox, M.**, Villamayor-Tomas, S. and Hartberg, Y. 2014. The role of religion in community-based natural resource management. *World Development* 54: 46-55.
- Epstein, G., Vogt, J., Mincey, S., **Cox, M.** and Fischer, B. 2013. Missing ecology: integrating ecological perspectives with the social-ecological system framework. *International Journal of the Commons* 7 (2): 432-453.
- Sloan Wilson, D., Ostrom, E. and **Cox, M.** 2013. Generalizing the core design principles for the efficacy of groups. *Journal of Economic Behavior & Organization* 905: S21-S32.
- Cox, M.**, Mincey, S., Ruseva, T., Villamayor-Tomas, S. and Fischer, B. 2013. Evaluating the USFS State and Private Forestry Redesign: A first look at policy implications. *Ecological Economics* 85: 35-42.
- Cox, M.** 2012. Diagnosing institutional fit: a formal perspective. *Ecology and Society* 17 (4): 54.
- Schoon, M. and **Cox, M.** 2012. Understanding disturbances and responses in social-ecological systems. *Society and Natural Resources* 25 (2): 141-155.

Cox, M. 2011. Advancing the diagnostic analysis of environmental problems. *International Journal of the Commons* 5 (2): 346-363.

Cox, M. and Ross, J. 2011. Robustness and vulnerability of community irrigation systems: the case of the Taos valley acequias. *Journal of Environmental Economics and Management* 61 (3): 254-266.

Auer, M. and **Cox, M.** 2010. Appraising climate change information reported to congress. *International Journal of Climate Change Strategies and Management* 2 (2): 118-133.

Cox, M., Arnold, G. and Villamayor-Tomás, S. 2010. A review of design principles for community-based natural resource management. *Ecology and Society* 15 (4).

Ostrom, E. and **Cox, M.** 2010. Moving beyond panaceas: a multi-tiered diagnostic approach for social-ecological analysis. *Environmental Conservation* 37 (4): 451-463.

Cox, M. 2008. Balancing accuracy and meaning in common-pool resource theory. *Ecology and Society* 13 (2).

Book chapters:

Cox, M. 2019. Using the Ostrom Workshop Frameworks to Study the Commons. In *The Routledge Handbook of the Study of the Commons*, Blake Hudson, Jonathan Rosenbloom, Dan Cole (Eds). Routledge, New York, NY.

Dragos, P. and **Cox, M.** 2018. Institutions for Solving Problems: Lessons and Implications from Institutional Design. Pages 559-571 in *The Oxford Handbook of Public Choice, Volume Two*, Roger Congleton, Bernard Grofman, and Stefan Voigt (Eds.). Oxford University Press, New York, NY.

Schlager, E. and **Cox, M.** 2017. The IAD Framework and the SES Framework: An Introduction and Assessment of the Ostrom Workshop Frameworks. Pages 215-252 in *Theories of the Policy Process, 4th edition*, Christopher M. Weible and Paul A. Sabatier (Eds). Westview Press, Boulder, CO.

Cox, M. 2015. Comparing Water Access Regimes Under Conditions of Scarcity: The Tale of two Communities in the United States. Pages 215-234 in *Governing Access to Essential Resources*, Katharina Pistor and Olivier De Schutter (Eds). Columbia University Press, New York, NY.

Ostrom, E., **Cox, M.** and Schlager, E. 2014. An Assessment of the Institutional Analysis and Development Framework and Introduction of the Social-Ecological System Framework. Pages 267- 306 in *Theories of the Policy Process 3rd edition*, Paul A. Sabatier and Christopher M. Weible (Eds). Westview Press, Boulder, CO.

Dell'Angelo, J., McCord, P., Baldwin, E., **Cox, M.**, Gower, D., Caylor, K. and Evans, T. 2014. Multilevel Governance of Irrigation Systems and Adaptation to Climate Change in Kenya. Pages 388-422 in *The Global Water System in the Anthropocene: Challenges for Science and Governance*, A. Bhaduri, J. Bogardi, J. Leentvaar, and S. Marx (Eds). Springer International Publishing, Switzerland.

Other outlets and news items:

To Save Their Water Supply, Colorado Farmers Taxed Themselves. National Public Radio, November 18, 2017. <https://n.pr/2zn8jj7>

Lin's Legacy: A Conversation with Michael Cox. *Prosocial Magazine*. August 4, 2016. <http://magazine.prosocialgroups.org/lins-legacy-a-conversation-with-michael-cox/>

Cox. M. 2014. The importance of the commons perspective. *The Commons Digest* Spring 2014: 15

Environmental Studies Professor Wins Elinor Ostrom Award. <https://news.dartmouth.edu/news/2013/07/environmental-studies-professor-wins-elinor-ostrom-award>

FUNDING:**External:**

2019-2023. USDA-NIFA-AFRI-06351. Innovative Governance of Scarce Surface Water and Groundwater for Irrigation of Production Agriculture in Southwestern United States. Role: Consultant, with PI Krister Andersson (University of Colorado Boulder), Budget: \$500,000

2015-2017 USDA AFRI Agriculture Systems and Technology, Life-cycle environmental benefits and financial resilience of integrated food-energy systems: closing the loop on nutrients, water and energy. Role: Co-Principal Investigator with PI Anne Kapuscinski (Dartmouth College), and Co-PIs Michael Gerst (University of Maryland) and Mark Laser (Dartmouth College), Budget: \$495,999

2014-2015 Packard Foundation, Testing the Effectiveness of Locally-Managed Marine Areas in Fiji with the Social-Ecological Systems Meta-Analysis Database Framework. Role: Co-Principal Investigator with PI Stacy Jupiter (Wildlife Conservation Society) and Co-PI Natalie Ban (University of Victoria) Budget: \$80,000

2011-2015 National Science Foundation (Dynamics of Coupled Natural and Human Systems), Institutional Dynamics of Adaptation to Climate Change: Longitudinal Analysis of Snowmelt-Dependent Agricultural Systems. Co-Principal Investigator with PI Tom Evans (Indiana University), and Co-PIs Krister Andersson (University of Colorado at Boulder), Kelly Caylor (Princeton University), and Daniel Cole (Indiana University), Budget: \$1,200,000

2011-2013 Templeton Foundation, The Role of Religion in Managing the Commons. Role: Co-Principal Investigator with David Sloan Wilson (SUNY Binghamton) and Elinor Ostrom (Indiana University), Budget: \$200,000

2008-2009 National Science Foundation Doctoral Dissertation Improvement Grant from the Geography and Regional Science Program, Doctoral Dissertation Research: Understanding the Acequia Irrigation Communities of New Mexico as Complex Social-Ecological Systems, Budget: \$11,500

Internal:

2017-2018 Nelson A. Rockefeller Center Faculty Research Grant \$8,350

AWARDS/HONORS:

2015 Dartmouth College Wilson Junior Faculty Research Fellowship

2013 International Association for the Study of the Commons (<http://elinorostromaward.org/>), Elinor Ostrom Award \$8,000

PRESENTATIONS:

The potential for cross-border polycentric environmental governance in Hispaniola. Earth Systems Governance conference, Oaxaca, Mexico, November 6, 2019.

The environmental social science network (essn) and knowledge base. Biennial Global Conference, International Association for the Study of the Commons, Edmonton, July 1, 2019.

Examining fishing and farming systems in the northwest coast of the Dominican Republic (invited presentation), University of New Hampshire's Environmental Science Seminar Series, Durham, NH October 20, 2017.

A gilded trap in Dominican rice farming. Resilience Alliance conference, Stockholm, Sweden, August 21, 2017.

The role of the SESMAD project in the analysis of marine social-ecological systems. Resilience Alliance conference, Stockholm, Sweden, August 20, 2017.

Manejo comunitario de recursos naturales: lecciones y desafíos (invited keynote address) Congreso de la Biodiversidad Caribeña, Santa Domingo, Dominican Republic, February 2, 2017.

Lin Ostrom, the commons, and social-ecological diagnosis (invited presentation). 3rd Summer School of Sustainability: The Governance of Social-Ecological Systems, University of Reims, Reims, France, July 6, 2016.

SESMAD: Comparative case studies of large-scale commons. 15th Biennial Global Conference, International Association for the Study of the Commons, Edmonton, Canada, May 29, 2015.

Exploring fishing dynamics in the Dominican fishing village of Buen Hombre. 15th Biennial Global Conference, International Association for the Study of the Commons, Edmonton, Canada, May 29, 2015.

Synthesizing theories of environmental governance (invited presentation). Senator George J. Mitchell Center for Sustainability Studies, University of Maine. Orono, ME, April 6, 2015.

Creating an environmental management database: lessons learned (invited presentation). 2nd Thematic Conference on Knowledge Commons: Governing Pooled Knowledge Resources. New York, NY, September 5, 2014.

The SESMAD Project. American Political Science Association Annual Meeting. Washington, DC, August 28, 2014.

The Social-Ecological Systems Meta-Analysis Database (SESMAD) project. Workshop on the Workshop, Bloomington, IN, June 20, 2014.

The Social-Ecological Systems Meta-Analysis Database (SESMAD) project. Resilience Alliance Conference, Montpellier, France, May 7, 2014.

Does Establishing Property Rights Protect Forests from Roving Bandits? International Congress for Conservation Biology, Baltimore, MD, July 22, 2013.

Property Rights in Environmental Governance (invited presentation). Columbia University Law School, New York, NY, Conference on Triangulating Property Rights, June 21, 2013.

The SESMAD Project. International Association for the Study of the Commons Biannual Conference, Fujiyoshida, Japan, June 4, 2013.

The Effects of Social and Economic Disturbances on the Taos Acequias of Northern New Mexico, (invited presentation), Acequias and the Future of Resilience in Global Perspective Symposium and Workshop, Las Cruces, NM, March 2, 2013.

Evaluating the USFS State & Private Forestry Redesign Program: A First Look at Policy Implications, 17th International Symposium on Society and Resource Management, Madison, WI, June 8, 2011.

Using Empirical Applications to Refine a Framework for Social-Ecological Analysis, Resilience 2011: Second International Science and Policy Conference, Tempe, AZ, March 14, 2011.

Collective Action Problems in Political and Biological Life (invited presentation), Association for Politics and the Life Sciences Annual Meeting, Bloomington, IN, October 14, 2010.

Advancing a Diagnostic Framework for Analyzing Complex Social-Ecological Systems, North American Regional Meeting of the International Association for the Study of the Commons, Tempe, AZ, October 2, 2010.

Manejo Comunal de los Recursos, El Agua en Nuestras Manos 1st Annual Conference, Samaipata, Bolivia, August 11-13, 2010.

Hydrology and Institutions of Robust Irrigation Systems (invited presentation), Acequia Hydrology Conference, New Mexico State University, Alcalde, NM, October 20–22, 2009.

Trade-Offs between Accuracy and Meaning in Common-Pool Resource Predictions, Midwest Political Science Association 66th Annual National Conference, Chicago, IL, April 3–6, 2008.

Applying Social-Ecological Fit and Adaptive Management Concepts to Irrigation Institutions in New Mexico, American Water Resources Association 2007 Annual Conference, Albuquerque, NM, November 12–15, 2007.

TEACHING AND ADVISING:**Courses taught:**

ENVS 10: Introduction to Environmental Statistics
ENVS 40: Foreign Study in Environmental Problems I
ENVS 61: Governing the Environment
ENVS 70: Environmental Policy Research Workshop
ENVS 83: Social-ecological Research Methods

Senior thesis students (primary advisor):

Michael Berger '14
Samantha Dowdell '14
Erin Livesey '15
Lucia Pohlman '15
Lauren Buchanan '16
Alison Dyer '16
Victoria Pan '16
Kathryn Gardner '17
James Buchanan '18
Vianey Rueda '19
Sherralyn Sneezzer '19
Jordan Swett '19

PhD Advising, committee member:

Sarah Mincey, Indiana University, 2013
Cody, Kelsey, University of Colorado Boulder, 2018
Monicah Mbiba, University of Witwatersrand, 2018

SERVICE:**External:**

Panel reviewer for the NOAA Sea Grant program

Reviewer of a CAREER proposal, the Geography and Spatial Sciences (GSS) Program at the U.S. National Science Foundation (NSF).

Proposal reviewer for the Law & Social Sciences Program of the National Science Foundation

Internal:

Co-chair, Ecology, Evolution, Environment and Society (EEES) PhD program, 2019
Chair, faculty search committee, ENVS program, 2019
Member, Postdoc hiring committee, EEES graduate program, 2016
Faculty advisor, Alpha Phi sorority, 2015/2016, 2016/2017
Member, College Course Steering Committee 2014-2018
Faculty advisor, Dartmouth alternative spring break trip to West Virginia, spring 2014
Chair, George Link lecture nominations committee, 2014

EDITORIAL ACTIVITIES:

Special issue editor with Michael Schoon, Sustainability 10(3): <https://www.mdpi.com/2071-1050/10/3>

Special issue editor with Natalie Ban, Ecology and Society, Advancing social-ecological research through teaching: social-ecological systems framework and design principles in large areas: <http://www.ecologyandsociety.org/issues/view.php?sf=107>.

Special issue editor, International Journal of the Commons, Introducing SESMAD: The Social-Ecological Systems Meta-Analysis Database: <https://www.thecommonsjournal.org/26/volume/8/issue/2/>

JOURNAL REVIEWS:

Agriculture and Human Values

Agricultural Systems

Ambio: Journal of the Human Environment

Annals of the Association of American Geographers

Biological Conservation

Conservation Biology

Conservation Letters

Current Opinion in Environmental Sustainability

Ecological Economics

Ecology and Society

Ecosystem Services

Environmental Conservation

Environmental Policy and Governance

Environmental Science & Policy

Forests, Trees and Livelihoods

Governance: An International Journal of Policy, Administration, and Institutions

Human Organization

Hydrology and Earth System Sciences

International Journal of the Commons

Journal of the Association of Environmental and Resource Economists (JAERE)

Journal of Environmental Management

Journal of Environmental Planning and Management

Journal of Institutional Economics

Journal of Natural Resources Policy Research

Land Use Policy

Philosophical Transactions A

Polar Record

Politics and the Life Sciences

Policy Studies Journal

Nature Climate Change

Natural Hazards

Social Sciences

Science

Science of the Total Environment

Society and Natural Resources

Sustainability

WIREs Water

World Development