A.R. SIDERS

University of Delaware 111 Academy Street, Newark DE 19716 siders@udel.edu | <u>sidersadapts.com</u> |@sidersadapts

EDUCATION

EDUCATION	
Degrees	
2018	Ph.D. , Stanford University, Emmett Interdisciplinary Program in Environment and Resources
2010	J.D., Harvard Law School, <i>magna cum laude</i> License: California State Bar
2007	A.B., Harvard College, Human Evolutionary Biology, summa cum laude
Certificates	, and the contege, training from the contraction of
2012	Georgetown University, Legislative Affairs
2011	Georgetown University, Nonprofit and Public Executive Management
PROFESSIONA	L APPOINTMENTS
2022 – pres.	Director , Gerard J. Mangone Climate Change Science and Policy Hub, University of Delaware
2023 – pres.	Associate Professor, University of Delaware
	Assistant Professor (2019-2023)
	Biden School of Public Policy and Administration; Department of Geography and Spatial
	Sciences, College of Earth, Ocean and Environment
	Core Faculty, Disaster Research Center; Affiliate, School of Marine Science and Policy
2018 – 19	Environmental Fellow, Harvard University Center for the Environment
2012 – 13	Associate Director & Postdoctoral Fellow, Columbia Law School, Center for Climate Change Law
2010 – 12	Presidential Management Fellow, U.S. Navy, Office of the Chief of Naval Operations
PUBLICATIONS	, , , , , , , , , , , , , , , , , , , ,
Journal Article	
In review	K. Best, Q. He, D. Niemeier, A. Reilly, J. Howell, D. Johnson, <u>A.R. Siders</u> , D. Gu, R. Young, A. Rumbach, G. Wong-Parodi, D. Liang, T. Sheldon, A. Flores, Y. Liao, "Bridging community resilience and local finance for climate justice," <i>Science Policy Forum</i> .
In review	C.J. Williams [‡] , R. Davidson, M. Millea, L. Nozick, J. Kruse, <u>A.R. Siders</u> , J. Trainor, "Comparing regional disaster risk reduction land use and building code policy strategies for new single-family housing," <i>International Journal of Disaster Risk Reduction</i> .
2024	T. Doeffinger [‡] , A.R. Siders, "A proposed method for analyzing historical adaptation pathways of coupled natural-human systems," <i>Environmental Science & Policy</i> [link].

- A.R. Siders, M. Hino, E. Shields*, A. Lafferty*, J. Huang*, L. Cano*, S. Tamima*, C.J. Williams[‡], L. Gerber-Chavez*, T. Doeffinger[‡], A. Agopian*, C. Samoray*, K. Mach, "How local governments avoid floodplain development through consistent implementation of routine municipal ordinances, plans, and programs," *Oxford Open Climate Change* [link].
- A. Agopian*, M. Hino, <u>A.R. Siders</u>, C. Samoray*, K. Mach, "A nationwide analysis of community-level floodplain development outcomes and key influences," *Earth Futures* [link].
- L. Paul, C. McGranaghan, <u>A.R. Siders</u>, P. Dineva*, L. Palm-Forster, K. Messer, "Addressing coordination problems in residential buyouts: Experimental evidence for managed retreat in the face of climate change-related threats," *Journal of Economic Behavior and Organization* [link].
- 2024 C. Samoray*, M. Hino, <u>A.R. Siders</u>, A. Agopian, K. Mach, "Housing amenity and affordability shape floodplain development," *Land Use Policy* [link].
- N. Simpson, K. Mach, M. Tebboth, E. Gilmore, <u>A.R. Siders</u>, P. Holden, B. Anderson, C. Singh, S. Sabour, L. Stringer, H. Sterly, P. Williams, A. Meyer, G. Cundill, S. Rosengaertner, A. Nunow, K. Amakrane, C. Trisos, "Research priorities for climate mobility," *One Earth* [link].
- 2023 K. Mach, J. Niemann, R. Donald*, N. Seeteram*, <u>A.R. Siders</u>, X. Cortada, A. Nyburg, J. Owley, A. Roberti, I. Wright, "Practitioner perspectives on climate mobilities in South Florida," *Oxford Open Climate Change* [*link*].
- P. Dineva*, C. McGranaghan, K. Messer, L. Palm-Forster, L. Paul, <u>A.R. Siders</u>, "Promoting spatial coordination in flood buyouts in the U.S.: Four strategies and four challenges from the economics of land preservation literature," *Natural Hazards Review* [*link*].
- U. Gangwal*, <u>A.R. Siders</u>, J. Horney, H. Michael, S. Dong, "Critical facility accessibility and road criticality assessment considering flood-induced partial failure," *Sustainable and Resilient Infrastructure* [link].
- J. Peterson, M. McMillan, <u>A.R. Siders</u>, L. Shi, G. Griggs, "Federal leadership for relocation of coastal communities," *Environmental Law Reporter* [*link*].
- 2022 <u>A.R. Siders</u>, "Navigating the middle space: A just transition for U.S. coastal adaptation," Shore & Beach [link] [link to text].
- A.R. Siders, "The administrator's dilemma: Closing the gap between climate adaptation justice in theory and practice," *Environmental Science and Policy* [link].
- N. Ulibarri, I. Ajibade, E. Galappaththi, E. Joe, A. Lesnikowski, K. Mach, J. Musah-Surugu, G. Nagle Alverio, A. Segnon, <u>A.R. Siders</u> ... Z. Zommers [32 co-authors], "A global assessment of policy tools to support climate adaptation," *Climate Policy* [link].
- N. Simpson, P. Williams, K. Mach, L. Berrang-Ford, R. Biesbroek, M. Haasnoot, A. Segnon, D. Campbell, J. Musah-Surugu, E. Joe, A. Nunbogu, S. Sabour, T. Andrews, C. Singh, <u>A.R. Siders</u>, J. Lawrence, M. van Aalst, C. Trisos, "Adaptation to compound climate events: A systematic global stocktake," *iScience* [*link*].
- 2021 K.J. Mach, <u>A.R. Siders</u>, "Reframing strategic, managed retreat for transformative climate adaptation," *Science* [*link*].

- L. Berrang-Ford, <u>A.R. Siders</u>, A. Lesnikowski ... Abu [126 co-authors], "A systematic global stocktake of evidence on human adaptation to climate change," *Nature Climate Change*, [*link*] [Global Adaptation Mapping Initiative GAMI].
- 2021 <u>A.R. Siders</u>, A.L. Pierce, "Deciding how to make climate change adaptation decisions," *Current Opinion in Environmental Sustainability* [*link*].
- A.R. Siders, I. Ajibade, D. Casagrande, "Transformative potential of managed retreat as climate change adaptation," *Current Opinion in Environmental Sustainability* [*link*].
- 2021 M. Araos, K. Jagannathan, R. Shukla, I. Ajibade, E. Coughlan de Perez, K. Davis, J. Ford, E. Galappaththi, C. Grady, A.J. Hudson, E. Joe, C. Kirchhoff, A. Lesnikowski, M. Nielsen, B. Orlove, B. Pentz, D. Reckien, <u>A.R. Siders</u>... L. Turek-Hankins [33 co-authors], "Equity in adaptation: A systematic global review," *One Earth* [*link*].
- 2021 <u>A.R. Siders</u>, I. Ajibade, "Managed retreat and environmental justice in a changing climate," *Journal of Environmental Studies and Sciences* (Intro to special issue) [*link*].
- 2021 C. Kraan*, J. Niemann, M. Hino, <u>A.R. Siders</u>, K. Mach, "Promoting equity in retreat through voluntary property buyout programs," *Journal of Environmental Sciences & Studies* [*link*].
- L. Turek-Hankins*, E. Coughlan de Perez, G. Scarpa, P. Shwerdtle, E. Joe, E. Galappaththi, E. French, S. Austin, C. Singh, M. Sina, <u>A.R. Siders</u>, M. van Aalst, S. Templeman, A. Nunbogu, L. Berrang-Ford, T. Agrawal, K. Mach, "Climate change adaptation to extreme heat: A global systematic review of implemented action," *Oxford Open Climate Change* [link].
- P. Marchman, A.R. Siders, K. Leilani Main, V. Herrmann, D. Butler*, "Planning relocation in response to climate change: Multi-faceted adaptations," *Planning Theory & Practice* [link].
- 2019 A.R. Siders, "Managed retreat in the United States," One Earth [link].
- 2019 K. Mach, C. Kraan, M. Hino, <u>A.R. Siders</u>, E. Johnston, C. Field, "Managed retreat through voluntary buyouts of flood-prone properties," *Science Advances* [*link*].
- 2019 <u>A.R. Siders</u>, M. Hino, K. Mach, "The case for strategic and managed climate retreat," *Science* [*link*].
- 2019 <u>A.R. Siders</u> & J. Keenan, "Variables shaping coastal adaptation decisions to armor, nourish, and retreat in North Carolina," *Ocean and Coastal Management* [*link*].
- 2019 <u>A.R. Siders</u>, "Adaptive capacity to climate change: A systematic review and synthesis of methods, concepts, and findings," *WIRES Climate Change* [link].
- 2019 <u>A.R. Siders</u>, C. Hulet, "Climigration and the private sector," *Community Development Investment Review* (Federal Reserve Bank of San Francisco) [*link*].
- 2018 <u>A.R. Siders</u>, "Social justice implications in U.S. managed retreat buyout programs," *Climatic Change* [*link*].
- 2017 <u>A.R. Siders</u>, "A role for urban climate adaptation strategies: Lessons from London, UK," *Regional Environmental Change* [*link*].
- 2016 E. Grubert & <u>A.R. Siders</u>, "Benefits and applications of interdisciplinary digital tools for environmental reviews and analysis," *Environmental Research Letters* [*link*].
- 2016 <u>A.R. Siders</u>, R. Stanley, & K.M. Lewis, "A proposal for dynamic ocean management in the Bering Strait region," *Marine Policy* [*link*].

Books

2021 I.J. Ajibade, <u>A.R. Siders</u> (eds.), *Global views on climate relocation and social justice:*Navigating retreat (Routledge) [link] [Introduction open access <u>here</u>]

Book Chapters

- 2024 L. Duckert, <u>A.R. Siders</u>, "Climate change ethics in *Harvestella*: Weirding, disquietude, choice," in *Playing to Save the World: Environmental Humanities and the Video Game* (Aliano & Crowley, eds.) [link].
- 2023 Contributing Author to Adaptation Chapter, in *Impacts, Risks, and Adaptation in the United States: Fifth National Climate Assessment* (Crimmins et al., eds.), US Global Change Research Program.
- A.R. Siders, K. Mach, "As coastal flooding worsens, some cities are retreating from the water," *The Conversation on Water* (Gerlak, ed., Johns Hopkins Press) [*link* to book]
- 2022 K. Mach, M. Hino, <u>A.R. Siders</u>, S. Koller, C. Kraan, J. Niemann, B. Sanders, "From flood control to flood adaptation: Managing changing risks and promoting just well-being," *Oxford Research Encyclopedia of Environmental Science* (Water Resources Management and Policy volume).
- O'Neill, B., M. van Aalst, Z. Zaiton Ibrahim, L. Berrang Ford, S. Bhadwal, H. Buhaug,

 A.R. Siders ... Z. Zhang [114 authors], "Key Risks Across Sectors and Regions." In: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press [link].
- A.R. Siders, M. Rockman, "Connecting Cultural Heritage and Urban Climate Change Adaptation," in Toward Sustainability + Equity (E. Avrami, ed., Columbia Books on Architecture and the City) [link].
- 2021 <u>A.R. Siders</u>, B. Ristroph, "Adaptation Federal Law," in Law of Environmental Protection (Environmental Law Institute, Reuters) [link to book].
- 2021 <u>A.R. Siders</u>, L. Gerber-Chavez*, "Resilience for whom? Insights from COVID-19 for social equity in resilience," *in COVID-19: Systemic Risk and Resilience* (I. Linkov, J. Keenan, B. Trump, eds., Springer) [*link* to book].
- 2016 <u>A.R. Siders</u>, "Resilient Incoherence Common language for climate change adaptation, disaster risk reduction, and sustainable development," in The Role of International Environmental Law in Disaster Risk Reduction (J. Peel and D. Fisher, eds., Brill) [book].
- 2012 M. Gerrard & <u>A.R. Siders</u>, "Mexico's General Climate Change Law," in *What are the Next Steps? Perspectives on Mexico's General Law on Climate Change* (Law Network).

Reports

- 2023 Inclusive & Creative Climate Education Workshop: Report on Design, Activities, and Lessons Learned (2023), for the President's Advisory Committee to the University Corporation on Atmospheric Research (PACUR) [link].
- N. Shepherd, J. Cohen, W. Carmen, M. Chundu, C. Ernsten, O. Guevara, F. Haas, S. Hussain, F. Riede, <u>A.R. Siders</u>, C. Singh, P. Sithole, A. Troi, "'Solutions' White Paper," *The role of cultural and natural heritage for climate action*, International Co-Sponsored Meeting on Culture, Heritage, and Climate Change, IPCC and ICOMOS [*link*].

- 2021 <u>A.R. Siders</u>, L. Gerber-Chavez*, *US floodplain buyouts: Common practices and lessons learned*, (The Nature Conservancy) [*link*].
- 2021 <u>A.R. Siders</u>, L. Gerber-Chavez*, S. Adams, D. Richardson, K. Reece*, *Local Wetland and Watercourse Regulations: Potential Tools for Floodplain Management, Lessons from Three New York Towns* (The Nature Conservancy) [*link*].
- A. Reilly, <u>A.R. Siders</u>, D. Niemeier, *Eliminate billion-dollar disasters: Equitable science-based US disaster policy for a resilient future* (Day One Project) [*link*].
- F. Bendimerad, J. Declan, M. Padilla, A. Dalena, <u>A.R. Siders</u>, R. Crozier, V. Seva, R. Tanhueco, *Naga City Case Studies: Risk Sensitive Land-Use Planning and Incentives for Disaster Risk Reduction* (Asian Development Bank, EMI; Philippines).
- S. Barley-Greenfield*, J. Huang*, J. Pullano*, R. Stanley*, M. Caldwell, J. Martinez, <u>A.R. Siders</u>, *Local barriers to nature-based strategies for coastal hazard mitigation in California* (Stanford Law School) [*link*].
- S. Barley-Greenfield*, J. Huang*, J. Pullano*, R. Stanley*, M. Caldwell, J. Martinez, <u>A.R. Siders</u>, *Legal analysis of eligibility of nature-based flood mitigation strategies for FEMA Hazard Mitigation Funding* (Stanford Law School) [*link*].
- 2013 <u>A.R. Siders</u>, Managed Coastal Retreat: A Legal Handbook on Shifting Development Away from Vulnerable Areas (Center for Climate Change Law, Columbia Law School) [link].
- B. Docherty, S. Knox, L. Pappone, <u>A.R. Siders</u>, *Bearing the Burden: The effects of mining on First Nations in British Columbia* (Harvard Human Rights Clinic) [*link*].

Other Publications: Conference Proceedings, Public-Facing Tools

- 2024 <u>A.R. Siders</u>, D. Veron, "Advancing climate education through integrated activities to promote inclusion, creativity, and mental health," *Bulletin of the American Meteorological Society* [*link*].
- 2023 <u>A.R. Siders</u>, A.E. Cravens, R. Nelson, N. Ulibarri, "How to slay your undead research projects," *Nature Careers* [*link*].
- A.E. Cravens, R. Nelson, <u>A.R. Siders</u>, N. Ulibarri, "Why four scientists spent a year say no," *Nature Careers* [*link*].
- 2021 <u>A.R. Siders</u>, Agenda for Climate Relocation Research and Practice, Proceedings of Penn's Perry World House, 2020 Global Shifts Colloquium [*link*].
- 2021 A.R. Siders, L. Gerber-Chavez*, A. Mann, S. Newkirk, Legal Tools Series [7 public-facing documents explaining coastal management tools] Bundle of Property Rights Explainer, Conservation Easements, Leasebacks, Life Estates, Rolling Easements, Rebuilding Restrictions, Transfer of Development Rights (The Nature Conservancy)
- 2020 <u>A.R. Siders</u>, C. Brooks, A. Cravens, R. Nelson, D. Reineman, N. Ulibarri, "How to beat isolation? Academic feedback groups promote growth as scholars and humans," *Nature Careers* [*link*].
- 2017 A.R. Siders, "Past US floods give lessons in retreat," *Nature Correspondence*.
- 2013 <u>A.R. Siders</u>, "Anatomy of a buyout: New York post-Sandy," *Proceedings of the 16th Conference on Litigating Takings Challenges to Environmental Regulations*.

Datasets, Coding Tools and Protocols

- Agopian, A., M. Hino, <u>A.R. Siders</u>, C. Samoray, K. Mach, "A Nationwide Analysis of Community-Level Floodplain Development Outcomes and Key Influences." DesignSafe-CI. https://doi.org/10.17603/ds2-ga7q-3j10
- 2021 L. Berrang-Ford, A. Lesnikowski, A.P. Fischer, <u>A.R. Siders</u> ... Van Aalst, "The Global Adaptation Mapping Initiative (GAMI): Part 1 Introduction and overview of methods," *Nature Protocol Exchange*, 10.21203/rs.3.pex-1240/v1
- A. Lesnikowski, L. Berrang-Ford, <u>A.R. Siders</u>, N. Haddaway, R. Biesbroek, S. Harper ... B. Van Bavel, "The Global Adaptation Mapping Initiative (GAMI): Part 3 Coding protocol," *Nature Protocol Exchange*, 10.21203/rs.3.pex-1242/v1
- A.R. Siders, Coder reliability and intercoder reconciliation for qualitative meta-analyses and syntheses, GitHub repository (R Code); 10.5281/zenodo.4010763
- 2018 A.R. Siders, R script for creating a cross-citation network, GitHub repository (R Code)

Selected Public Writings

- 2023 <u>A.R. Siders</u>, Book Review: *The Octopus in the Parking Garage*: 'Hope is Alive but Time is Running Short,' Blog: Center for Progressive Reform [*link*]
- 2022 A.R. Siders, "Reflections on the IPCC WGII Report," Latitude (Plos Climate Blog).
- D. Thompson, <u>A.R. Siders</u>, "The Delaware Change Solutions Act is necessary urgently so. Here's why," *Delaware Online*.
- 2021 K.J. Mach, <u>A.R. Siders</u>, "Is your town threatened by floods? Consider managed retreat," The New York Times [link].

 Essay featured in "30 ways science educators teach with the New York Times" [link]
- A.R. Siders, K.J. Mach, "Managed retreat done right can reinvent cities so they're better for everyone and avoid harm from flooding, heat and fires," *The Conversation* [link].
- 2021 <u>A.R. Siders</u>, A. Reilly, D. Niemeier, "After 22 billion-dollar disasters in 2020, it's time U.S. disaster policy was made equitable, effective, and climate-ready: Here's how," *The Conversation* [link].

POLICY EXPERIENCE

- 2015 19 Climate Adaptation Specialist, Earthquakes and Megacities Initiative
- 2012 13 **Associate Director** & Postdoctoral Research Fellow, Center for Climate Change Law, Columbia Law School

Researcher and advocate for legal strategies to promote coastal resilience. Drafted legislation. Supported developing states at UNFCCC. Led successful intervention in utility rate case to include climate adaptation in utility storm-hardening measures.

2010 – 12 **Presidential Management Fellow**, U.S. Navy

Select accomplishments include:

Warfare Integration, Office of the Chief of Naval Operations, Washington DC
 Managed \$900 million in energy and climate programs. Conducted Three-Star
 Admiral level coordination on Task Force Energy and Task Force Climate Change.

Africa Partnership Station, Naval Forces Africa, Naples, Italy
 Collaborated with U.S. analysts and partners to establish strategic planning and capacity building plans with seven East African navies.

GRANTS

- Special Creativity Supplement [Invited by Program Officer], NSF Humans, Disasters and the Built Environment, Methods to Identify Alternative Policy Toolsets for Floodplain Avoidance and Implications for Moral Reasoning in Disaster Funding Allocations (PI, \$242,174)
- 2024 NSF EPSCoR Tract 2 FEC, Risks, impacts and strategies for coastal communities (RISCC): Decision-making and wellbeing in communities disproportionately affected by climate change along the Atlantic seaboard (Advisory Board, \$8,000,000)
- 2023 Canadian New Frontier in Research Fund (NFRF-2-23-00253): International Joint Initiative for Research in Climate Change Adaptation and Mitigation Competition, "Retreating from Risk: Decision-supports for the equitable implementation of retreat to build climate resilience" (Advisor on US practices)
- NSF Coastlines and People (CoPe), Equity, economic prosperity, and resilience to coastal hazards in coastal communities (Senior Personnel, \$14,528,022)

 2023 Supplemental: \$30,000 for Women Leadership & Climate Change Video Games
- Delaware Sea Grant, Community resilience and adaptation to sea level rise and extreme storms: Tradeoffs of home acquisition strategies (Senior Personnel, \$142,500)
- Delaware Department of Transportation, Modeling road access, social justice, and future adaptation allocations (Co-PI, \$112,000)
- NSF Humans, Disasters and the Built Environment [HDBE], Collaborative Research: Floodplain management in the United States: Where, why, and how policies to limit or remove development have shaped exposure outcomes (PI, \$290,090)
- 2021 University of Delaware Research Foundation, Evaluating floodplain buyouts: Understanding how voluntary property acquisitions affect participants (PI, \$38,500)
- 2020 Unidel, Establishing a UD Climate Science and Policy Hub (funding to the university; cosponsor, \$446,000)
- 2020 NASA EPSCoR, Building a Competitive and Sustainable Delaware Remote Sensing Big Data Center for Cutting-Edge Coastal and Environmental Change Research and Workforce Development (Senior Personnel, \$750,000)
- 2020 The Nature Conservancy, Legal challenges for coastal adaptation (PI, \$107,000)

PRESENTATIONS (SELECTED)

Invited Workshops & Symposia

2024 Snowmass Workshop: Impacts of extreme events on coastal and urban systems in multisectoral dynamics modeling, Stanford Engineering, June 24-27.

select videos at: shorturl.at/vCNS2

- 2024 U.S. Coastal Research Program, Decadal Visioning Workshop, St. Petersburg, FL, June 10-13.
- 2024 Keogh School of Global Affairs: Embracing Integral Human Development, Notre Dame, Discussant, Rome, May 27-31.
- 2024 Louisiana Smart Growth Summit, Keynote, Baton Rouge, LA, Apr 24-25.
- 2023 Ludic Solarites Panel, Situated Solar Relations, Solar Collective, Concordia, May 11.
- 2023 Bridging Community Resilience and Local Finance for Climate Justice, University of Maryland, May 1.
- 2023 White House Workshop on Climate Change Education, March 8-9.
- 2022 Potsdam Institute for Climate Impact Research (PIK), Expert Workshop on Climate Sensitivity of Human Mobility, Dec 14-16.
- 2022 Stanford University, New Climate Paradigms Conference, Center for Ethics in Society, Nov 10-11.
- Perry World House, Symposium: Imagine a Just and Climate Resilient Transboundary Region: An experiment in the politics of humility and the diplomacy of radical generosity, Sep 30.
- 2022 University of Southern California Sea Grant, People on the Move in a Changing Climate Workshop, Sep 27-28 Website
- 2022 Heidelberg Center for American Studies, Natural Catastrophes in the United States Making Sense of Risks and Vulnerability, Germany, July 15 <u>Call for papers</u>
- 2022 Natural Hazards Workshop, [Plenary] Climate & Relocation, July 12 Agenda & Video
- 2022 Coastal Quest Symposium, Accelerating Solutions for a Resilient Coast, Adaptive Shoreline Management Panel, March 23 Website
- 2022 Massachusetts Association of Conservation Commissions, Annual Environmental Conference, Managed Retreat Panel, March 2 Agenda
- 2021 Global Climate Forum, Symposium Cultures of Coastal Adaptation, Germany [Virtual], Sep 22-24.
- 2021 New Hampshire Coastal Adaptation Workgroup, Climate Summit [Keynote], May 26 Website & Videos
- 2021 Temple University, Beasley School of Law, Temple Law Review, Climate Migration Symposium, Feb 26 Agenda Link
- 2020 University of Connecticut, SeaGrant, Climate Adaptation Academy, Managed Retreat Workshop [Keynote], Nov 13 <u>Website with Agenda & Videos</u>
- 2020 Perry World House, Global Shifts Colloquium: Seeking Refuge in the Climate Emergency, University of Pennsylvania, Sep 14-16 <u>Website & Proceedings</u>
- American Association for the Advancement of Science (AAAS) Annual Meeting, Seattle, WI, Envisioning Ocean Climate Solutions for the Next Generation, Feb 15 agenda
- 2020 Columbia University, Climate Heritage Toward Sustainability and Equity: Envisioning Preservation Policy Reform, Feb 6-7 <u>book</u>

- 2019 Kiel University, Germany, Narratives and Discourses in Environmental Justice, June 6-9.
- 2019 Ocean Visions Climate Summit, Georgia Institute of Technology, *Adaptive socioecological systems in coastal climate adaptation*, April 1-4 [Keynote] <u>Agenda</u>

Invited Talks – Webinars & Speaker Series

- Washington State Buyout & Acquisition Webinar Series, University of Washington, June 6 & 10.
- 2023 Local Media Consortium, Climate Collective, Sep 27.
- 2023 Women in Finance, Climate change and the real estate industry, Sep 14.
- 2023 Environmental Law Institute, Federal relocation of coastal communities, July 26.
- Delaware Natural History Museum and the College of Earth, Ocean, and the Environment, Speaker Series, Apr 12.
- 2023 Cascadia Coastal Hazards Research Coordination Network and Coastlines and People Hub, Apr 6, 2023.
- 2023 Delaware TED Salon, Climate Anxiety and Mental Health, Mar 7.
- 2023 University of Miami, Rosenstiel School of Marine Science, Environmental Policy Seminar Series, Mar 3.
- 2023 Montclair State University, Sustainability Speaker Series, Feb 27.
- 2022 University of Washington, Center for Studies in Demography and Ecology, Seminar Series Speaker, Oct 14.
- 2022 Hudson River Estuary Program, Wetland Buffers and Municipal Flood Control, Sep 14. website
- 2022 Climate Central, Rising Sea Level and Real Estate Values, Webinar, Sep 7.
- National Academies of Science Engineering and Medicine (NASEM), Committee on Hazard Mitigation and Resilience Applied Research Topics, Compound and Cascading Events Panel, May 31 Agenda Link.
- 2022 National Academies of Science Engineering and Medicine (NASEM), Committee on Managed Retreat in the Gulf Region, Workshop Presentation, May 16 <u>Agenda Link</u>
- 2022 Princeton University, High Meadows Environmental Institute, Highwater Line: New Jersey, Coastal Solutions Panel, May 4 <u>Website</u>
- 2022 Gulf of Maine Research Institute, Learning Ecosystems Northeast, Color of Climate Youth Organization, Climate Migration Speaker Series, March 7 Video
- 2021 Princeton University, Center for Policy Research on Energy and the Environment, Bradford Seminar, Oct 25 <u>website with video archive</u>
- 2021 NASA & Department of Interior, Interagency Forum on Climate Risks, Impacts, and Adaptation, Oct 7 <u>Agenda</u>
- FEMA & NASA, Resilient Nation Partnership Network, Alliances for Climate Action Virtual Forum Series, Managed Retreat Panel [Moderator], Oct 6 Website & Speakers
- 2021 Disaster Recovery Academy, The Nature Conservancy, *Managed Retreat and US Buyouts*, June 4.

- NOAA, Moving Back from the Mid-Atlantic Coast: Relocation Planning Approaches and Tools, April 28 Video
- 2021 Marine Social Science Network, Adaptive Capacity Working Group, *Defining and assessing adaptive capacity*, April 1.
- 2021 Old Dominion University, Institute for Coastal Adaptation and Resilience, Seminar Series, Mar 22 <u>link</u>
- 2021 World Refugee & Migration Council, Climate Change & Forced Displacement (Panel), Feb 25 website & video
- 2020 Climate Central, Workshop: Billion Dollar Disasters & Climate Change, Dec 14 Website
- 2020 Observer Research Foundation, June 29 (Online keynote for audience in Kolkata, India) <u>Video</u>
- 2020 Georgia Institute of Technology, Civil and Environmental Engineering Cross-Cutting Resilience Research Seminar, Jan.
- 2019 Middlebury Institute of International Studies, Managed Retreat in California, Nov 12.
- 2019 Natural Resources Defense Council, Building Better Buyouts Workshop, Oct.

Conference Activity (Recent)

- New Jersey Coastal and Climate Resilience Conference, Keynote, New Jersey Resilience Collaborative, Mar 12-23.
- 2023 Association for Public Policy Analysis & Management, Adaptation Ethics Panel, Nov 9-11.
- 2023 Columbia University, Managed Retreat Conference, June 21-24.
- 2023 Ocean Visions Summit 2023, Keynote Speaker on Climate Adaptation, Apr 5.
- 2023 American Association of Geographers, Panel on Human Mobility, Mar 24.
- 2022 New Jersey Association of Floodplain Managers, Plenary Panel, Oct 27.
- National Adaptation Forum, Baltimore, MD, Stories from Frontline Communities Adapting to Climate Change, Oct 26.
- 2022 Royal Geographic Society, Annual Meeting, United Kingdom [Virtual] Aug 31.
- 2021 Royal Geographic Society, Annual Meeting, United Kingdom [Virtual] Aug 28.
- 2021 Columbia University, Managed Retreat Conference, Virtual, June 22-25 (Keynote)
- 2021 South by Southwest (SXSW), Rising Seas [Panel], March 16-20 [video].
- American Geophysical Union, Bridging Systems Modeling Advances Across Socioecological Domains [Panel], Dec 7.
- 2020 Natural Hazards Conference, Colorado [Virtual] [Moderator] July 13.
- 2019 Data Science Institute Symposium, University of Delaware, Nov 15.
- 2019 Columbia University, Managed Retreat Conference, New York, NY June 19-21 (Panel)
- 2019 American Association of Geographers Annual Meeting, Washington DC, April 6.
- 2019 National Adaptation Forum, Madison, WI, April 23-25.

Public Talks (Recent)

- Virtual Ocean Pavilion (UNFCCC Conference of Parties 28 side event), Shifting Goals: Social Science Advances for Goals in a Changing Climate (moderator), Nov 30.
- 2023 National Public Radio, Climate Media Summit, June 5.
- 2023 FEMA Puerto Rico, Workshop, Community-driven relocation as a strategy for fair adaptation, Apr 12.
- 2022 Long Beach Options Committee, Webinar, Rockport, MA, Jan 25 news story
- 2021 European Ambassador Joint Visit to University of Delaware, Lewes DE (Panel) Oct 18.
- 2021 Delaware Sierra Club, Managed Retreat Q&A Livestream, April 2 ad
- Ocean Currents Lecture Series, *Living with the shore: Visions of adaptation for coastal communities*, July 9.
- 2020 Resilient and Sustainable Communities League (RASCL), Equity in Adaptation, Jan.
- 2019 Newburyport Storm Surge, MA, At What Point Retreat? November 6.
- 2019 New Yorker Festival, Climate Change and Coastal Resilience, October 11 [Panel].
- New England Environmental Business Council, Adaptation Forum, *The R Word: Retreat, Relocation, and Climate Resilience*, March 1.

TEACHING

Classroom Instruction

2019 – pres. University of Delaware

- Research Design (graduate, instructor) (Fall 2020, Fall 2021, Fall 2022, Fall 2024 [as independent study])
- Climate Change Policy (undergraduate, instructor) (Spring 2022, Spring 2023)
- Climate Adaptation Policy (undergraduate and graduate, course developer and instructor) (Fall 2019, Fall 2021, Spring 2024)
- Climate Fiction, Science, and Communication (undergraduate and graduate, course developer and instructor) (Fall 2020)
- Environmental Justice in Disasters (undergraduate and graduate, course developer and instructor) (Spring 2020, 2022)
- Public Policy Analysis (undergraduate, instructor) (Spring 2020; Fall 2020)
- EnRoads Modeling Presentations (1 cred, Spring 2023)
- 2015 Stanford Law School, *Policy Lab: Catalyzing Nature Based Solutions for Flood and Coastal Defense* (graduate) (co-instructor)
- 2014 Stanford, Civil and Environmental Engineering, *Climate Change Adaptation in Coastal Cities* (undergraduate and graduate) (course developer and instructor)

External Guest Lectures (Selected)

- 2022, 2023 Harvard, Graduate School of Design, Climate by Design
 - 2022 Berkeley, University of California, Climate Change Adaptation
 - 2021 Berkeley, University of California, Sustainable Environmental Design, Thesis Review

- 2021 University of Florida, Envision Resilient Nantucket
- 2021 North Carolina State University, Environmental Speaker Series Lectures

ADVISING

Postdoctoral Fellows

- 2023 pres. Abbey Hotard, Disaster Research Center; funded by National Science Foundation CHEER Coastlines and People Hub (co-advised with Dr. Joe Trainor)
 - 2021-23 Tess Doeffinger, Disaster Research Center; funded by National Science Foundation, Social Behavioral and Economic Postdoctoral Fellowship; Assistant Professor, The Citadel

PhD Students

Advisor

Tiana Thorp, PhD, Civil and Environmental Engineering, University of Delaware, Co-Advisor (anticipated 2026)

Awards: National Council of Structural Engineers Associations (NCSEA) Foundation Diversity in Structural Engineering Scholarship

Salvesila Tamima, PhD, Disaster Science & Management, University of Delaware (anticipated 2026)

Awards: Jeanne X. Kasperson student paper award, Hazards, Risks, and Disasters Specialty Group of the American Association of Geographers; Gilbert White thesis award

Anmol Arora, PhD, Disaster Science & Management, University of Delaware (anticipated 2027)

Logan Gerber-Chavez, PhD, Disaster Science & Management, University of Delaware (2023) (currently faculty at Embry-Riddle)

Awards: University of Delaware Doctoral Research Fellowship; Biden School of Public Policy and Administration Peter A. Larson prize for significant contribution to international public policy; First prize paper award Middle States Regional Conference of American Association of Geographers (2021)

Committee Member

Caitlin Wilson, PhD, Marine Policy, University of Delaware (anticipated 2027)

Graham Andrew, PhD, Public Policy, Pardee RAND Graduate School (anticipated 2027)

Gulrukh Kakar, PhD, Disaster Science & Management, University of Delaware (anticipated 2026)

Samuel Fielding, PhD, Marine Policy, University of Delaware (anticipated 2025)

Joy McCusker, PhD Plant and Soil Sciences, University of Delaware (anticipated 2025)

Ju-Ching Huang, SJD, Georgetown Law School (anticipated 2025)

Coryn Wolk, PhD, Geography and Spatial Sciences, University of Delaware (qualifying committee, 2024)

Armen Agopian, PhD, Environmental Science, University of Miami (anticipated 2026)

Erica Bower, PhD, Emmett Interdisciplinary Program in Environment and Resources, Stanford University (2024)

Caroline Williams, PhD Engineering, University of Delaware (2023)

Emily Aiken, PhD, Geography & Spatial Sciences, University of Delaware ('20-'21)

Academic Advisor

Adam Andresen, PhD, Disaster Science & Management, University of Delaware ('20-'21)

Master's Students

Academic Advisor, Energy and Environmental Policy MS students (~2-4 per year)

Research Advisor

M. Jawadul Gani, MS, Energy and Environmental Policy, University of Delaware (anticipated 2024)

Matthew Kirchoff, MS, Energy and Environmental Policy, University of Delaware (2020) Emily Flynn, MA, Harvard Extension School (2020)

Committee Member or Reader

Rose Zappacosta, MS, Energy and Environmental Policy, University of Delaware (2021) Loonibha Manandhar, MS, Geography Spatial Sciences, University of Delaware (2021) Brian Capobianco, MS, Energy and Environmental Policy, University of Delaware (2020) Jeffrey Chubbs, MS, Energy and Environmental Policy, University of Delaware (2020) Michelle Woody, MS, Disaster Science and Management, University of Delaware (2020) Collyn Chan, MS, Department of Urban Planning, MIT (2019)

Undergraduate Advising

Thesis Advisor

Alyssa Wentzel, BS Honors Marine Science and BA Honors Public Policy (anticipated 2025; second reader)

Kristen Reece, BA, International Relations & German (2022)

Academic Advisor

Environmental Studies (5 students)

Energy and Environmental Policy (Minor) (7 students)

Undergraduate Research Supervisor

Summer Research Scholars (2021, 2024)

Summer Research Fellows Program (2020, 2021) (3 students)

University of Delaware Research Apprenticeship Work-Study (UDRAW) (2020 – present) Research-Funded RAs (10 students) (2020 - present)

SERVICE ACTIVITIES

Departmental and University Service

University

2022 – pres.	Director, Gerard J. Mangone Climate Change Science and Policy Hub
2020 – 24	Library Committee, Senate Faculty Standing Committees
Biden School o	f Public Policy and Administration
2023 – pres.	Program Director, Disaster Science and Management
	Graduate Policy Committee (member since 2020; chair since 2022)
2024 – pres.	Promotion & Tenure Committee, Committee Member
2023 – 24	Diversity, Equity and Inclusion Committee Member
2021 – 23	Doctoral Committee, Energy and Environmental Policy
2021 – 22	Identity Committee, Biden School
2020 – 21	Program Development Committee, Disaster Science and Management
2019 – 20	International Committee, Member, Biden School
Geography & S	Spatial Sciences
2023	Search Committee, Continuing Track Faculty in Environmental Studies
2021	Search Committee, Tenure Track Faculty in Social Dimensions in Climate Change
2020	Academic Council
Ad Hoc	
2020, 2021	Woolard Climate Scholar application evaluation and selection
2022 – pres.	Climate Scholars Advisor
Advisory & Lea	adership Positions
2024 – pres.	Chapter Lead Author, Adaptation, 6 th National Climate Assessment, US Global Change Research Program
2024	Coast Predict Steering Committee (program of the UN Decade of Ocean Science for Sustainable Development)
2020	American Association of Geographers, Human Dimensions of Global Change Specialty Group, Board Member
2019 – pres.	Forerunner, Advisor
2019 – 22	Ocean Visions, Fellow
2019 – 20	Hawai'i Philanthropy Foundation, Advisory Board
2018 – 20	Climigration Network, Agenda Setter Leadership Team
2017 – 23	Earth Systems Governance Network, North American Region, Co-Coordinator
Editorial	
2021 – pres.	Academic Editor, PLOS Climate
2020 – pres.	Editorial Board, SciNotes
2018 – 21	Assistant Editor, Journal of Environmental Studies and Science (JESS)
	Editor of Special Issue on Managed Retreat (2021)
2009 – 10	Editor-in-chief and co-founder, Harvard National Security Journal
2009 – 10	Editor-in-chief, Harvard Human Rights Journal

Journal Reviewer

Arctic Anthropology, Climate and Development, Climate Policy, Climate Risk Management, Climatic Change, Conservation Biology, Earth's Future, Elementa, Environmental Research Letters, Global Environmental Change, International Journal of Mass Emergencies and Disasters, International Journal of Urban Science, Journal of Environmental Management, Journal of Environmental Planning and Management, Journal of Planning Education and Research, Latin American Research Review, Marine Policy, Maritime Policy & Management, McGill Journal of Sustainable Development Law, Mitigation and Adaptation Strategies for Global Change, Natural Hazards Review, Ocean & Coastal Management, PLoS One, Regional Environmental Change, Science, Weather, Climate and Society, WIREs Climate Change, Water and Environmental Policy

Grant Reviewer

National Science Foundation – Sociology; Decision Science; Humans, Disasters, and the Built Environment

Swiss National Science Foundation (Switzerland)

European Research Council – ERC Consolidator Grant (European Union)

Social Sciences and Humanities Research Council (Canada)

New Jersey Sea Grant Consortium

California State Science Information Needs Program (COAST)

DelMarVa Land Grant Institution Cooperative Seed Grant

Oregon Sea Grant SEED Proposal Competition

Pacific Institute for Climate Solutions

Virginia Agricultural Experiment Station, Virginia Tech

University of Delaware internal grant competitions

Conference Organization Committee Member and/or Reviewer

2021, 2023, 2025 Columbia University Earth Institute, Managed Retreat Conference, Committee

2021 Ocean Visions Climate Summit, Committee

2020 Urban Institute, Climate Migration Policy Summit, Committee

2018, 2019 Association for Environmental Studies & Sciences, Conference Committee

2017 - 2020 Association of Digital Humanities Organizations, Conference Reviewer

Professional Development

2020 - 2022 Leveraging Equity and Diversity (LEAD) Ally Training

2020 Wiley Online Course Design Training

MEDIA COVERAGE (SELECTED RECENT)

Television

NBC South Florida, What is managed retreat? A controversial climate adaptation scientists say is inevitable, May 16.

2022 Bloomberg, <u>Hurricane Sandy 10 years later: Is New York City ready?</u> Oct 27.

- 2022 CNN, After her home was destroyed by Ian, she's ready to 'close it up and be done.'
 She's not the only one, Oct 13.
- 2022 WBTW, Saving the Carolinas: The financial toll of climate change on the coast, Feb 14
- 2021 C-SPAN, Washington Journal, <u>Efforts to reform taxpayer-funded disaster relief policies</u>, Sep 2.

Radio & Podcast

- 2023 Marketplace, Buyouts prevented some damage in Vermont's July flood, Aug 14
- 2023 NPR, Climate change is causing people to move. They usually stay local, June 15
- The Takeaway, NY Public Radio, <u>'Managed Retreat' a solution to communities impacted by climate change</u>, Apr 18.
- 2022 NPR, Ocean water along US coasts will rise one foot by 2050, scientists warn, Feb 15.
- 2021 Science Friday, Stories from those on the frontlines of sea level rise, Oct 29.
- 2021 NPR, More than Half US Buildings are in Places Prone to Disaster, Study Finds, June 24.

Newspapers & Magazines

- 2023 Washington Post, <u>This NJ town erected barriers to hold back the sea. A public fight</u> <u>erupted</u>, Aug 18.
- 2023 Lismore News, Dr. A.R. Siders weighs in on Resilient Homes Program (Australia), Aug 31.
- New York Times, Climate Forward, <u>Cities vs. Rising Seas</u>, May 19.
- 2022 USA Today, Climate change makes coasts riskier, but people keep coming, Sep 26
- 2022 National Geographic, Antarctic ice shelves are shattering. How fast will seas rise? Mar 28
- 2022 BBC Planet, The Illinois town that got up and left, Mar 14
- 2021 PBS News Hour, <u>In communities facing effects of climate change, some forced to consider leaving home in 'managed retreat'</u>, Nov 12.
- 2021 LA Times, <u>How should California confront the rising sea? These lawmakers have some bold ideas</u>, Aug 26.