

## ASIM ZIA, Ph.D.

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### ACADEMIC TRAINING

- **Ph.D. Public Policy**, Georgia Institute of Technology, Atlanta GA (2004)
- **Advanced Graduate Coursework, Ecological Economics**, Ruprecht-Karls University of Heidelberg, F. R. Germany (1997-1999)
- **M.A. Philosophy (Logic, AI and Philosophy of Science)**, University of the Punjab at Lahore, Pakistan (1996)
- **B.A. Philosophy and Mass Communications**, University of the Punjab at Lahore, Pakistan (1991)
- **Undergraduate Coursework, Mechanical Engineering**, University of Engineering and Technology at Lahore, Pakistan (1988-90)

### ACADEMIC POSITIONS

- 07/2018 – Tenured **Professor**, Department of Community Development and Applied Economics, (Primary Appointment) & Department of Computer Science (Secondary Appointment), University of Vermont, Burlington VT
- 07/2013 – 06/2018 **Associate Professor**, Department of Community Development and Applied Economics (Primary Appointment), Department of Computer Science (Secondary Appointment), University of Vermont, Burlington VT
- 08/2008 – 06/2013 **Assistant Professor**, Department of Community Development and Applied Economics, University of Vermont, Burlington VT
- 08/2006 – 06/2008 **Assistant Professor**, Department of Environmental Studies, San Jose State University, San Jose CA
- 08/2004 – 07/2006 **Post-Doctoral Scientist**, Institute for the Study of Society and Environment, National Center for Atmospheric Research, Boulder CO
- 08/2000 – 07/2004 **Graduate Research Assistant** Air Quality Laboratory, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta

### ADMINISTRATIVE POSITIONS & LEADERSHIP EXPERIENCE (Selected)

- 01/2024 – Present **Associate Dean of Research and Post-Graduate Education**, College of Agriculture and Life Sciences, University of Vermont
- 01/2024 – 06/2024 **Interim Director**, Water Resources Institute, University of Vermont
- 07/2023 – 08/2024 **Interim Chair**, Department of Community Development and Applied Economics, University of Vermont
- 08/2022 – 08/2025 **Director**, Ph.D. Program in Sustainable Development Policy, Economics and Governance, University of Vermont
- 08/2020 – 05/2021 **Interim Director**, Master of Public Administration Program, University of Vermont
- 08/2014 – Present **Co-Director**, Social Ecological Gaming and Simulation Lab, University of Vermont
- 06/2013 – Present **Director**, Institute for Environmental Diplomacy and Security, University of Vermont
- 08/2014 – 06/2016 **Associate State Director**, Vermont EPSCOR – Experimental Program to Stimulate Competitive Research, University of Vermont
- 08/1999 – 08/2000 **Section Officer (USA, Germany, Australia, New Zealand)** Economic Affairs Division, Ministry of Finance and Economic Affairs, Federal Government of Pakistan, Islamabad
- 02/1995 – 08/1997 **Section Officer (Germany)** Economic Affairs Division, Ministry of Finance and Economic Affairs, Federal Government of Pakistan, Islamabad

- 07/1995 – 06/1996 **Special Coordinator (Aid-to-Pakistan Consortium)** Privatization of Kot-Addu Thermal Power Plant, Economic Affairs Division, Ministry of Finance and Economic Affairs, Federal Government of Pakistan, Islamabad
- 06/1994 – 02/1995 **Probationary Officer** 25<sup>th</sup> Office Management Group, Secretariat Training Institute, Federal Government of Pakistan, Islamabad
- 10/1993 – 06/1994 **Probationary Officer**, 21<sup>st</sup> Commons Group, Civil Services Academy, Federal Government of Pakistan, Lahore

## **FELLOWSHIPS, AWARDS, AND HONORS**

- **Fulbright Global Scholar**, 2021-2024, “Securing Clean Water in Transboundary Indus, Jordan and Amazon Basins through Science and Environmental Diplomacy.” US Department of State.
- **University Scholar**, 2020-21, University of Vermont.
- **Hubert W. Vogelmann Award for Excellence in Research and Scholarship**, College of Agriculture and Life Sciences (CALS), University of Vermont, 2019-20.
- **Senior Fellow**, 2018-2019, Global Change Impact Studies Center (GCISC), Ministry of Climate Change, Government of Pakistan.
- **Winner of STAR 2017 Award**, Presented for one of the best papers in *NSF Funded Workshop on ABM Modeling*, San Diego, California, April 20-April 22, 2017 for the paper “Shang Wu, Asim Zia, Mengyuan Ren, Kent Messer. 2017. Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.”
- **Outstanding Alumnus Award**, 2014, School of Public Policy, Georgia Institute of Technology, Atlanta GA.
- **Faculty Fellow**, 2011 to Present, Gund Institute of Environment, University of Vermont.
- **Senior Research Fellow**, 2013 to Present, [Earth System Governance Project](#)
- **Winner of 2011 Marshall E. Dimock Award**, Presented for the best lead article in *Public Administration Review* during a volume year (2011) for the paper “Accountability in Governance Networks: An Assessment of Public, Private, and Nonprofit Emergency Management Practices Following Hurricane Katrina”, Koliba, C., Mills, R. and Zia, A.
- **Winner of the 2004-2005 APPAM Ph.D. Dissertation Award**, The Association for Public Policy Analysis and Management (APPAM) honored with the best Ph.D. dissertation award during 2005 Annual Conference in Washington DC
- **Selected Participant, United Nations Environment Program, Islamabad**, 1999, A seminar on “ISO 14000 and standard environmental management systems.
- **Fellowship Awardee, Regional Environmental Management, Rhede Germany**, 1997, Konrad Adenauer Foundation awarded a month-long fellowship to participate in a seminar on regional environmental management held in Rhede, Germany

## **PUBLIC SERVICE (Selected)**

### **International**

- **Lead Coordinator and Co-Editor**: United Nations Environment Program (UNEP) (2024) Digital Technologies for Environmental Peacebuilding: Horizon Scanning of Opportunities & Risks. United Nations Environment Program. ISBN: 978-92-807-4164-3. <https://wedocs.unep.org/20.500.11822/45795>
- **Director (Asia Pacific)**, Board of Directors, Environmental Peacebuilding Association (Elected for 2022-2024 and 2025-2027)
- **Member, International Organizing Committee**, Navigating Global Water Security: Predicting Floods, Droughts, and Water Quality Threats. A high-level international summit, Alberta Canada, October 30-Nov 1, 2024
- **Member, Advisory Board, Global Center for Climate Change and Transboundary Waters**. University of Michigan, Ann Arbor USA & McMaster University, Canada. 2023-2028.
- **Member, Technical Advisory Group, Global Center for Climate Mobility, Greater Caribbean Climate Mobility Initiative, United Nations**, New York USA. 2022-2024.

- **Lead Co-Organizer**, Deltas-UNite: Urgent Call for Climate Action with a UN Convention for Conserving River Deltas. UNFCCC COP28.
- **Lead Organizer**, A side event in China pavilion during UNFCCC COP26 on "Securing Clean Water in Transboundary Basins through Science and Environmental Diplomacy."
- **Lead Organizer**, A panel on Environmental Diplomacy in the Indus, Jordan and Kabul River Basins: Prospects & Challenges. *Annual meeting of Environmental Peacebuilding Association*. October 23-25, 2019. Irvine CA
- **Lead Organizer**, Side event on "Implementing Food, Energy, and Water Security Early Warning Systems for Adaptation to Climate Change," UNFCCC Conference of Parties (COP-24), Katowice, Poland, December 2018
- **Co-Editor-in-Chief**, Complexity, Governance and Networks, 2020-2026
- **Co-Founder**, Transboundary Water In-Cooperation Network (TWIN). [www.transboundarywater.org](http://www.transboundarywater.org)
- **Associate Editor**, Complexity, Governance and Networks, 2014-2019
- **Academic Editor**, *PLOS One*, since 2014. See <http://journals.plos.org/plosone/static/editorial-board> Subject Areas: *Science policy and economics, Social sciences, Social anthropology, Sociology, Computational sociology, Economics, Economic development, Cost-benefit analysis, Spatial economic analysis, Political science, Computer and information sciences, Computer modeling, Computerized simulations, Earth sciences, Atmospheric science, Geography, Political geography, Economic geography, Human geography, Social geography, Ecology and environmental sciences, Environmental economics, Environmental geography, Nature-society interactions, Energy and power, Mathematical economics, Applied mathematics, Algorithms*
- **Academic Editor**, Complexity, since 2021
- **Co-chair**, Interest Group on Frontier Technologies in Environmental Peacebuilding, Environmental Peacebuilding Association
- **Guest Editor**, Special Issue on "Sustainable water resource management under climate change", *Frontiers in Water*
- **Guest Editor**, Special Issue on "Adaptive Governance of Social Ecological Systems," *Complexity, Governance and Networks*
- **Member** SWARM Development Group
- **Lead Organizer** for an International Workshop on "Impact of Weather and Climate on Society Affairs" held from November 24-26, 2005 in Islamabad, Pakistan. Collaborators, Michael Glantz (NCAR) and Zafar Adeel (UNU)

## National

- **Co-Chair**, National Working Group #4: Impacted Based Decision Support Systems (IDSS). Cooperative Institute for Research to Operations in Hydrology (CIROH), Office of Water Prediction. National Oceanic and Atmospheric Administration (NOAA), 2023-Present
- **Chair**, Section on Complexity, Governance and Networks, ASPA, 2024-2027
- **Institutional Fellow**, Cooperative Institute for Research to Operations in Hydrology (CIROH), Office of Water Prediction. National Oceanic and Atmospheric Administration (NOAA), January-June 2024
- **Roundtable Organizer**, Enhancing social and coupled natural and human science in CIROH training, CIROH Developers Conference, May 29-June 1, 2024, Salt Lake City Utah
- **Member**, Executive Committee, Section on Complexity, Governance and Networks, ASPA (2021-2024)
- **Lead Organizer**, Session on "Responsible AI Governance and Sensor Technology for Sustainability", ASPA 2023 annual conference
- **Lead Organizer**, A workshop on "Advancing Public Service through Big Data and Artificial Intelligence," ASPA 2019 Annual Conference
- **External Reviewer**, Center for Collective Dynamics of Complex Systems (CoCo), Binghamton University & State University of New York, April, 2019
- **Member, Scientific Review Committee (SRC)**, National Socio-Environmental Synthesis Center (SESYNC), 2014-17

## Local

- **Member** Graduate Student Union Bargaining Committee, AY 2024-2025
- **Member** Advisory Committee for Appointment of Interim Provost, Fall 2024
- **Member** Graduate Executive Committee, University of Vermont, since 2023
- **Member** Provost Committee on Distinguished Professors and University Scholars, since 2022
- **Member** Presidential Doctoral Fellows Selection Committee, since 2024
- **Member** Search Committee, CALS Pre-Award Officer, 2024
- **Member** Search Committee, Assistant/Associate Professor of Public Policy/Administration, CDAE, 2022-23
- **Member** 5<sup>th</sup> year review committee for Chair, Department of Civil and Environmental Engineering, UVM
- **Chair, Search Committee**, Assistant/Associate Professor, Computer Science (Cybersecurity and Privacy), 2018-19 and 2019-2020
- **Member** Search Committee, Dean, College of Agriculture and Life Sciences, 2018-19 and 2019-20
- **Member** Shelburne Planning Commission, 2017-19
- **Member** Advisory Board THINKMD
- **Member** Search Committee Assistant Professor CDAE, 2017-18
- **Member** Professional Standards Committee, College of Agriculture and Life Sciences, 2017-20
- **Lead Organizer** *SwarmFest2016: 20<sup>th</sup> Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
- **Member** Complex Systems tenure track search committee, 2013-14
- **Member** 5<sup>th</sup> year review committee for Dean of College of Agriculture and Life Sciences (CALS)
- **Member** Power Systems tenure track search committee, 2012-13
- **Chair** Awards Committee, College of Agriculture and Life Sciences, 2015-17
- **Member** Awards Committee, College of Agriculture and Life Sciences, 2011-14
- **Member** Internal Governance Committee, Institute for Environmental Diplomacy and Security at the University of Vermont 2010-Present
- **Member** Trans-disciplinary Research Initiative (TRI) Committee on Complex Systems 2009-10
- **Member** MPA Core Competency Committee 2009
- **Senator** Academic Senate, San Jose State University 2007-2008
- **Member** Policy Committee on Professional Standards, San Jose State University 2007-08
- **Member** College of Social Science Curriculum Committee 2006-2008
- **Student Representative** on a search committee for hiring Assistant Professor of Environmental Ethics in the School of Public Policy, Georgia Institute of Technology (November 2002 – April 2003)

## RESEARCH GRANTS AWARDED

- 08/2024-07/2026 **Project Leader, Developing and integrating a social water use model to improve the predictive capacity of water resource models to account for water uses and sector tradeoffs.** United States Geological Survey (USGS), Subproject under Cooperative Institute for Research to Operations in Hydrology (CIROH). CO-Project Leader: Dr. Corinne Schuster-Wallace (University of Saskatchewan, Canada); Co-PIs: Dr. Scott Merrill (UVM), Dr. Nicholas Magliocca (University of Alabama), Dr. Martyn Clark (University of Calgary). Dr. Chris Koliba (University of Kansas). Total Award: \$450,000; UVM portion \$237,500.
- 08/2024-07/2026 **Project Leader, Establishing a coupled human-water systems modeling think tank for advancing social models in parallel with the NextGen model.** National Oceanic and Atmospheric Administration (NOAA), Subproject under Cooperative Institute for Research to Operations in Hydrology (CIROH). CO-Project Leader: Dr. Corinne Schuster-Wallace (University of Saskatchewan, Canada); Co-PIs: Dr. Scott Merrill (UVM), Dr. Nicholas Magliocca (University of Alabama), Dr. Martyn Clark

- (University of Calgary). Dr. Chris Koliba (University of Kansas). Total Award: \$200,000; UVM portion \$66,999.
- 08/2024-07/2026 **Co-Principal Investigator, Operationalizing a flexible modeling and data collection workflow to predict harmful algal blooms using hyperspectral imagery and machine learning in data-poor freshwater environments** United States Geological Survey (USGS), Subproject under Cooperative Institute for Research to Operations in Hydrology (CIROH). Project Leader: Dr. Sierra Young (Utah State University). Other CO-PIs: Dr. Andrew Schroth (UVM). Total Award: \$300,000.
- 08/2022-07/2025 **Project Leader, Forecasting the incidence and duration of harmful algal blooms (HABs) at daily, weekly and seasonal scales.** National Oceanic and Atmospheric Administration (NOAA), Subproject under Cooperative Institute for Research to Operations in Hydrology (CIROH). Total Award: \$2,249,994
- 08/2022-07/2025 **Project Leader, Integrate observations and field work in support of expanded evaluation data testbeds in the Northeast.** National Oceanic and Atmospheric Administration (NOAA), Subproject under Cooperative Institute for Research to Operations in Hydrology (CIROH). Total Award: \$499,992
- 09/2021-08/2026 **Principal Investigator, NSF-USDA-NIH EEID: Predicting Livestock Disease Transmission Dynamics under Alternate Biosecurity Risk Management Interventions and Behavioral Responses of Livestock Producers.** USDA-NIFA. Total Award: US \$ 2,448,000. With Cheney (Co-PI), Hebert-Dufresne (Co-PI), Koliba (Co-PI), Smith (Co-PI)
- 10/2020-09/2025 **Co-Principal Investigator, NSF-FW-HTF-RL: Testing a Responsible Innovation Approach for Integrating Precision Agriculture (PA) Technologies with Future Farm Workers and Work.** National Science Foundation. Total Award: US \$ 2,997,792.00. With Gardezi (PI), Clay (Co-PI), McMaine (Co-PI), Rizzo (Co-PI)
- 09/2019-08/2021 **Co-Principal Investigator, NSF-FW-HTF-P: Anticipating Risks and Benefits of Precision Agriculture (PA) on the Future of Agricultural Work and Workforce: A Multi-Stakeholder Research Agenda.** National Science Foundation. Total Award: US \$ 150,000. With Gardezi (PI), Clay (Co-PI), Michael (Co-PI), Rizzo (Co-PI)
- 09/2019-08/2022 **Co-Principal Investigator, Quantifying the Response of Lake Carmi Water Quality to Aeration.** Vermont Department of Environmental Conservation. Total Award: US \$ 149,997. With Schroth (PI)
- 06/2018-08/2019 **Principal Investigator, Governing Water Quality Limits in Agricultural Watersheds: Farmer Behavior and Perceptions under Vermont's Clean Water Act.** Vermont Water Resources and Lakes Studies Center (VWRLSC) on USGS Project # 035193. With Hammond Wagner (Co-PI)
- 09/2017-08/2018 **Co-Principal Investigator, SCC-Planning: Smart Connections for Conserving and Catalyzing Cultural Community Resources.** National Science Foundation. Total Award: US \$ 100,000. With Rizzo (PI), Porter (Co-PI), Dewoolkar (Co-PI), Huston (Co-PI)
- 06/2016-05/2022 **Science Leader, Resilience to Extreme Events in Social Ecological Systems of the Lake Champlain Basin (Basin Resilience to Extreme Events, BREE) RII Track-1.** National Science Foundation-EPSCOR. Total Award: US\$ 20,000,000. With Arne Bomblies (PI)
- 06/2017-12/2019 **Senior Personnel, Risk Perception in Provision of Aquatic Ecosystem Services.** NSF-SESYNC. Total Award: US\$ 100,000. With Webster (PI)
- 06/2016-12/2017 **Principal Investigator, Resilience and Control in Coupled Food Energy and Water Systems.** UVM Office of Vice President for Research. Total Award: US\$ 5,000.00.

- 04/2015-03/2020 **Co-Principal Investigator, A Human Behavioral Approach to Reducing the Impact of Livestock Pest or Disease Incursions of Socio-Economic Importance.** USDA-AFRI. Total Award: US \$7.4 million. With Smith (PI), Koliba (Co-PI) and Merrill (Co-PI)
- 06/2012-05/2015 **Co-Principal Investigator, Climate Adaptation and Mitigation in the Lake Champlain Basin of Vermont.** USDA via UVM's Food System Spire. Total Award: US \$ 300,000. With Mendez (PI)
- 08/2013-07/2016 **Science Investigator, North-East Water Resources Network.** NSF-EPSCOR. Total Award: US \$ 6,000,000. With Van Houten (PI)
- 05/2013-04/2016 **Co-Principal Investigator, Integrating Human Risk Perception of Global Climate Change into Dynamic Earth System Models.** NSF-SESYNC and NSF-NIMBIOS. US \$ 150,000. With Beckage (PI), Gross (Co-PI)
- 09/2013-08/2015 **Principal Investigator, Sustainable Small-scale Bioelectricity Systems in Rural East Africa.** Gund Institute of Ecological Economics. Total Award: US\$ 9,980
- 08/2013-07/2018 **Senior Personnel, Economics for the Anthropocene: Regrounding the Human-Earth Relationship.** Social Science and Humanities Research Council. Total award \$2,431,000. With Brown, P. (PI)
- 07/2012-07/2014 **Co-Principal Investigator, Strategic Response to Energy-Related Security Threats.** US-DoD. Total Award \$172,973. With Ali, S. (PI)
- 04/2012-12/2013 **Principal Investigator, Integrating Sustainability within Transport Asset Management Processes: Governance of Intergovernmental Decision Making on Prioritizing V-Trans STIP Projects, 2000-2035.** US Department of Transportation through UVM-TRC. Total Award: US\$ 39,005 (excluding cost share).
- 02/2012-06/2012 **Principal Investigator, Understanding Cross-Scale Dynamics in Social Ecological Systems: Integrative Analysis of Multi-Level Institutional Mechanisms Governing Tropical Deforestation and Forest Degradation in Peru, Mozambique and Indonesia.** Gund Institute of Ecological Economics Collaborative Grant. Total Award: US\$ 15,000.
- 09/2011-08/2017 **Senior Personnel, IGERT Graduate Traineeships: Smart Grid, Human Behavior and Policy.** National Science Foundation-IGERT. Total Award: US\$ 3,000,000. With Marshall, J. (PI)
- 09/2011-09/2016 **Science Investigator, Adaptation to Climate Change in the Lake Champlain Basin: New Understanding through Complex Systems Modeling.** National Science Foundation-EPSCOR. Total Award: US\$ 20,000,000. With Van Houten (PI)
- 10/2011-09/2013 **Science Investigator, Improving Connectivity between the University of Vermont and the Vermont State Colleges for STEM Research and Education.** National Science Foundation-EPSCOR. Total Award: US\$ 100,000. With Van Houten (PI)
- 07/2010-06/2012 **Co-Principal Investigator, Development of a Complex Governance Systems Research and Modeling Initiative.** UVM's Jeffords Center for Policy Research. Total Award: US\$ 100,000. With Koliba (PI)
- 06/2010-01/2011 **Principal Investigator, Navigating Trade-Offs in Complex Systems.** US Department of Transportation through UVM's Transportation Research Center. Total Award: US\$ 11,000
- 05/2009-10/2010 **Co-Principal Investigator, Advancing Conservation in Social Context: Working in a World of Trade-Offs** MacArthur Foundation. Total Award: US\$ 6,000,000. UVM Sub-award: US\$ 22,000. With McSchane (PI), Brosius (PI) and Kinzig (PI)
- 08/2007-12/2008 **Co-Principal Investigator, Carsharing and Carbon Dioxide Emission Reduction Across Density and Transit Quality Gradients in the U.S.** Mineta Transportation



Institute, San Jose State University, San Jose CA. Total Award: US\$ 50,000. With Shaheen (PI)

- 05/2007-08/2008 **Principal Investigator, A Multiple Criteria Evaluation of Green House Gas (GHG) Emission Reduction Policies in the Transportation Sector of California** Mineta Transportation Institute, San Jose State University, San Jose CA. Total Award: US\$ 5,000.
- 10/2004-05/2008 **Co-Principal Investigator, Ecological Boundary Setting in Mental and Geophysical Models** Human and Social Dynamics (HSD) Program, National Science Foundation. Total Award: US\$ 625,000. With Norton (PI)
- 08/1997-03/1998 **Principal Investigator, Development Cooperation between Pakistan and Germany** Heinrich Boell Foundation, Lahore, Pakistan. Total Award: Deutsche Marks 10,000

## **PUBLICATIONS**

### **Journal Articles**

84. **Zia, Asim**, Katherine Lacasse, Nina H. Fefferman, Louis J. Gross, and Brian Beckage. 2024. "Machine Learning a Probabilistic Structural Equation Model to Explain the Impact of Climate Risk Perceptions on Policy Support" *Sustainability* 16, no. 23: 10292.
83. Baye, R. S., **Zia, A.**, Merrill, S. C., Clark, E., Smith, & J. M. Koliba, C. (2024). A latent class analysis of biosecurity attitudes and decision-making strategies of swine producers in the United States. *Scientific Reports*, 14: 17427. <https://doi.org/10.1038/s41598-024-67385-z>
82. Baye, R. S., **Zia, A.**, Merrill, S. C., Clark, E., Koliba, C., & Smith, J. M. (2024). Biosecurity Indemnification and Attitudes of United States Swine Producers towards the Prevention of an African Swine Fever Outbreak. *Preventive Veterinary Medicine*, 106193. <https://doi.org/10.1016/j.prevetmed.2024.106193>
81. Gardezi, M., Abuayyash, H., Adler, P. R., Alvez, J. P., Anjum, R., Badireddy, A. R., ... & **Zia, A.** (2024). The role of living labs in cultivating inclusive and responsible innovation in precision agriculture. *Agricultural Systems*, 216, 103908. <https://doi.org/10.1016/j.agsy.2024.103908>
80. Vij, S., Stock, R., Ishtiaque, A., Gardezi, M. and **Zia, A.**, 2023. Power in climate change policy-making process in South Asia. *Climate Policy*, pp.1-13. <https://doi.org/10.1080/14693062.2023.2271440>
79. Feng, Q., Chen, L., Yang, L., Yen, H., Wang, R., Wu, F., Feng, Y., Raj, C., Engel, B.A., Omani, N., Oikonomou, P.D., and **Zia, A.**, 2023. A distributed model parameter optimization toolbox performing multisite calibration in the lump and distributed mode for the SWAT model. *Environmental Modelling & Software*, p.105785. <https://doi.org/10.1016/j.envsoft.2023.105785>
78. Brugler, S., Gardezi, M., Dadkhah, A., Rizzo, D.M., **Zia, A.** and Clay, S.A., 2023. Improving decision support systems with machine learning: identifying barriers to adoption. *Agronomy Journal*. <https://access.onlinelibrary.wiley.com/doi/abs/10.1002/agj2.21432>
77. Prutzer, E., Gardezi, M., Rizzo, D. M., Emery, M., Merrill, S., Ryan, B. E., ... & **Zia, A.** (2023). Rethinking 'responsibility' in precision agriculture innovation: lessons from an interdisciplinary research team. *Journal of Responsible Innovation*, 1-24. <https://doi.org/10.1080/23299460.2023.2202093>
76. Bucini G, Clark EM, Merrill SC, Langle-Chimal O, **Zia A**, Koliba C, Cheney N, Wiltshire S, Trinity L and Smith JM (2023) Connecting livestock disease dynamics to human learning and biosecurity decisions. *Front. Vet. Sci.* 9:1067364. doi: 10.3389/fvets.2022.1067364
75. Tung-Lin Liu, Scott C. Merrill, Aislinn O'Keefe, Eric Michael Clark, Ollin D Langle-Chimal, Luke Trinity, Trisha Shrum, Christopher Koliba, **Asim Zia**, Julia M Smith, (2022) Effects of Message Delivery on Cross-cultural Biosecurity Compliance: Insights from Experimental Simulations. *Frontiers in veterinary science*, 9:984945 <https://doi.org/10.3389/fvets.2022.984945>
74. Koliba C, Merrill SC, **Zia A**, Bucini G, Clark E, Shrum TR, Wiltshire S and Smith JM (2022) Assessing strategic, tactical, and operational decision-making and risk in a livestock production chain through experimental simulation platforms. *Front. Vet. Sci.* 9:962788. doi:10.3389/fvets.2022.962788

73. Clark EM, Merrill SC, Trinity L, Liu T-L, O'Keefe A, Shrum T, Bucini G, Cheney N, Langle-Chimal OD, Koliba C, **Zia A** and Smith JM (2022) Comparing behavioral risk assessment strategies for quantifying biosecurity compliance to mitigate animal disease spread. *Front. Vet. Sci.* 9:962989. doi:10.3389/fvets.2022.962989
72. Ryan BEK, Shrum T and **Zia A** (2022) Assessing Farmer Incentives for Transitioning Toward Sustainable Agriculture and Provisioning of Clean Water. *Front. Water* 4:918035. doi: 10.3389/frwa.2022.918035
71. Tsai Y, Zabronsky HM, **Zia A** and Beckage B (2022) Efficacy of Riparian Buffers in Phosphorus Removal: A Meta-Analysis. *Front. Water* 4:882560. doi: 10.3389/frwa.2022.882560
70. **Zia, A.**, A.W. Schroth, J.S. Hecht, P. Isles, P.J. Clemins, S. Turnbull, P. Bitterman, Y. Tsai, I. N. Mohammed, G. Bucini, E.M.B. Doran, C. Koliba, A. Bombliies, B. Beckage, J. Winter, E.C. Adair, D.M. Rizzo, B. Gibson, G. Pinder (2022) Climate change-legacy phosphorus synergy hinders lake response to aggressive policy targets. *Earth's Future*. <https://doi.org/10.1029/2021EF002234>
69. Shrum, T., Nowak, S. A., Merrill, S. C., Hanley, J. P., Liu, T., Clark, E. M., **Zia, A.**, Koliba, C. (2022). Pro-Environmental Attitudes, Altruism, and COVID-19 Risk Management Behavior. *Journal of Risk Research*. <https://doi.org/10.1080/13669877.2022.2067891>
68. Hecht, Jory S; **Asim Zia**; Patrick J Clemins; Andrew W Schroth; Jonathan M Winter; Panagiotis D Oikonomou; Donna M Rizzo, (2022) Modeling the sensitivity of cyanobacteria blooms to projected changes in precipitation and temperature variability. *Science of the Total Environment*. p.151586. <https://doi.org/10.1016/j.scitotenv.2021.151586>
67. Clark Eric M., Merrill Scott C., Trinity Luke, Bucini Gabriela, Cheney Nicholas, Langle-Chimal Ollin, Shrum Trisha, Koliba Christopher, **Zia Asim**, Smith Julia M. (2021) Emulating Agricultural Disease Management: Comparing Risk Preferences Between Industry Professionals and Online Participants Using Experimental Gaming Simulations and Paired Lottery Choice Surveys. *Frontiers in Veterinary Science*. Volume 7. DOI=10.3389/fvets.2020.556668
66. Keady, John Walter; Bindu Panikkar; Ingrid L. Nelson; **Asim Zia** (2021) Energy Justice Gaps in Renewable Energy Transition Policy Initiatives in Vermont. *Energy Policy*, 159, 112608. <https://doi.org/10.1016/j.enpol.2021.112608>
65. Gourevitch, J. D., Koliba, C., Rizzo, D. M., Zia, A., & Ricketts, T. H. (2021). Quantifying the social benefits and costs of reducing phosphorus pollution under climate change. *Journal of Environmental Management*, 293, 112838. <https://doi.org/10.1016/j.jenvman.2021.112838>
64. Merrill, S.C., Trinity, L., Clark, E.M., Shrum, T.R., Koliba, C.J., Zia, A., Bucini, G., Sellnow, T.L., Sellnow, D.D. and Smith, J.M., 2021. Message delivery strategy influences willingness to comply with biosecurity. *Frontiers in veterinary science*, 8. doi: 10.3389/fvets.2021.667265
63. Del Rossi, Gemma, Jory S. Hecht, **Asim Zia** (2021) "A mixed-methods analysis for improving farmer participation in agri-environmental payments for ecosystem services in Vermont, USA." *Ecosystem Services* 47: 101223. <https://doi.org/10.1016/j.ecoser.2020.101223>
62. Hammond-Wagner, Courtney, Suzie Greenhalgh, Meredith T. Niles, **Asim Zia**, William B. Bowden (2020) Evaluating water quality regulation as a driver of farmer behavior: a social-ecological systems approach. *Ecology and Society*, 25(4) 35. <https://doi.org/10.5751/ES-12034-250435>
61. Ren, Q., **Zia, A.**, Rizzo, D.M. and Mathews, N., 2020. Modeling the Influence of Public Risk Perceptions on the Adoption of Green Stormwater Infrastructure: An Application of Bayesian Belief Networks Versus Logistic Regressions on a Statewide Survey of Households in Vermont. *Water*, 12(10), p.2793. <https://doi.org/10.3390/w12102793>
60. Merrill, Scott C, Christopher Koliba, Gabriela Bucini, Eric Clark, Luke Trinity, **Asim Zia**, Nicholas Cheney, Ollin Langle, Trisha Shrum, Timothy Sellnow, Deanna Sellnow, Julia M Smith (2020) A systems approach to understanding biosecurity decision-making, *Journal of Animal Science*, Volume 98, Issue Supplement\_4, November 2020, Page 43, <https://doi.org/10.1093/jas/skaa278.078>
59. Clark, Eric Michael, Scott C. Merrill, Luke Trinity, Gabriela Bucini, Nicholas Cheney, Ollin Langle-Chimal, Trisha Shrum, Christopher Koliba, **Asim Zia**, Julia M Smith (2021) Emulating Agricultural Disease Management: Comparing Risk Preferences Between Industry Professionals and Online Participants Using Experimental Gaming Simulations and Paired Lottery Choice Surveys. *Frontiers in Veterinary Science*, Volume 7. doi: 10.3389/fvets.2020.556668
58. Brian Beckage; Katherine Lacasse; Jonathan Winter; Louis Gross; Nina Fefferman; Forrest Hoffman; Sara Metcalf; Travis Franck; Eric Carr; **Asim Zia**; Ann Kinzig (2020) The Earth has humans, so why don't our climate models? *Climatic Change*. <https://doi.org/10.1007/s10584-020-02897-x>



57. Elizabeth Doran, **Asim Zia**, Stephanie Hurley, Yu-shiou Tsai, Christopher Koliba, Carol Adair, Rachel Schattman, Donna Rizzo, Ernesto Mendez (2020) Social-Psychological Determinants of Farmer Intention to Adopt Nutrient Management Practices: Implications for Resilient Adaptation to Climate Change in the Lake Champlain Basin. *Journal of Environmental Management* 276: 111304. <https://doi.org/10.1016/j.jenvman.2020.111304>
56. **Asim Zia**, Arthur Brassart, Sheila Thomas, Fen Ye, Judith Stephenson, Daniel Mullins, Chris Jones (2020) Patient Centric Structural Determinants of Adherence Rates among Asthma Populations: Exploring the Potential of Mobile Health App TRUSTR to Improve Adherence. *Journal of Health Economics and Outcomes Research*. 7(2): 111-122. doi: [10.36469/jheor.2020.13607](https://doi.org/10.36469/jheor.2020.13607)
55. Ivanova, Antonina, **Asim Zia**, Paiman Ramsan, Marion Bastos-Lima (2020) Climate mitigation policies and actions: access and allocation issues. *International Environmental Agreements: Politics, Law and Economics*. 20(2): 287-301. <https://doi.org/10.1007/s10784-020-09483-7>
54. Luke Trinity, Scott C. Merrill, Eric M. Clark, Christopher J. Koliba, **Asim Zia**, Gabriela Bucini, Julia M. Smith (2020) Effects of Social Cues on Biosecurity Compliance in Livestock Facilities: Evidence from Experimental Simulations. *Frontiers in Veterinary Science* 7: 130.
53. Kasser, Susan, **Asim Zia** (2020) The Mediating Role of Resilience on Quality of Life in Individuals with Multiple Sclerosis: A Structural Equation Modeling Approach. *Archives of Physical Medicine and Rehabilitation*. <https://doi.org/10.1016/j.apmr.2020.02.010>
52. Eric M. Clark, MS; Scott C Merrill; Luke Trinity; Gabriela Bucini; Nicholas Cheney; Ollin Langle-Chimal; Trisha Shrum; Christopher Koliba; Asim Zia; Julia M Smith (2020) Using Experimental Gaming Simulations To Elicit Risk Mitigation Behavioral Strategies For Agricultural Disease Management. *PLOS One*. 15(3), p.e0228983. <https://doi.org/10.1371/journal.pone.0228983>
51. **Zia, Asim**, Shanshan Ding, Kent Messer, Haoran Miao, Jordan Suter, Jacob Fooks, Todd Guilfoos, Simona Trandafir, Emi Uchida, Yushiou Tsai, Scott Merrill, Scott Turnbull, Christopher Koliba (2020) Characterizing Heterogeneous Behavior of Non-Point Source Polluters in a Spatial Game under Alternate Sensing and Incentive Designs. *Journal of Water Resources Planning and Management*. 146 (8): 04020054. DOI: [10.1061/\(ASCE\)WR.1943-5452.0001242](https://doi.org/10.1061/(ASCE)WR.1943-5452.0001242).
50. Panikkar, Bindu, **Zia, A.**, Sgorbati, S., Cohen, M., Abid, M., Fayyaz, F. M., Hashimi, N., Ali, S., Ahmed, M., Aman, Z., Halasah, S., Rice, D., Rossi, G. D., Ryan, B., Ren, Q., Hameed, K., Hussain, M.(2019) Transboundary water governance in the Kabul river basin: Implementing environmental and public diplomacy between Pakistan and Afghanistan. *Complexity, Governance and Networks*. 5(1): 101-120. <http://dx.doi.org/10.20377/cgn-80>
49. **Zia, A.** (2019) Adaptive governance of coupled social-ecological systems: Introduction to the special issue themes. *Complexity, Governance and Networks* 5(1). <http://dx.doi.org/10.20377/cgn-92>
48. Merrill, S.C., Moegenburg, S.M., Koliba, C.J., **Zia, A.**, Trinity, L., Clark, E., et al. (2019). Message delivery method, information certainty and infection risk influence willingness to comply with biosecurity in livestock facilities: evidence from experimental simulations *Frontiers in Veterinary Science*. doi: 10.3389/fvets.2019.00156
47. Gabriela Bucini, Scott C. Merrill, Eric Clark, Susan Moegenburg, **Asim Zia**, Christopher J. Koliba, Serge Wiltshire, Luke Trinity, and Julia M. Smith (2019) Risk attitudes affect livestock biosecurity decisions with ramifications for disease control in a simulated production system. *Frontiers in Veterinary Science*. doi: 10.3389/fvets.2019.00196
46. Merrill, Scott C., Christopher J. Koliba, Susan Moegenburg, **Asim Zia**, Timothy Sellnow, Serge Wiltshire, Caitlin Danehy, Julia M. Smith, Gabriela Bucini, and Jason Parker (2019) Decision-Making in Livestock Biosecurity Practices Amidst Environmental and Social Uncertainty: Evidence from an Experimental Game. *PLOS One* 14(4), e0214500. doi: 10.1371/journal.pone.0214500.
45. Serge Wiltshire, **Asim Zia**, Christopher Koliba, Gabriela Buccini, Eric Clark, Scott Merrill, Julie Smith, Susan Moegenburg (2019) Network Meta-Metrics: Using Evolutionary Computation to Identify Effective Indicators of Epidemiological Vulnerability in a Livestock Production System Model. *Journal of Artificial Societies and Social Simulation* 22(2), 8. doi: 10.18564/jasss.3991.
44. **Asim Zia** (2019) Meta-decision modeling of wicked environmental policy design problems: Understanding conservation versus development valuation conflicts in Tanzanian, Vietnamese and Peruvian social-ecological systems. *Journal of Policy and Complex Systems* 5(1) 3-24. doi: 10.18278/jpcs.5.1.2
43. **Zia, A.** and Stuart Kauffman (2018) The Limits of Predictability in Predefining Phase Spaces of Dynamic Social Ecological Systems: “Command and Control” Versus “Complex Systems” Based

- Policy Design Approaches to Conserve Tropical Forests. *Journal of Policy and Complex Systems* 4(2). doi: 10.18278/jpcs.4.2.9
42. Coleman, S., Hurley, S., Rizzo, D., Koliba, C. and **Zia, A.** (2018) From the household to watershed: A cross-scale analysis of residential intention to adopt green stormwater infrastructure. *Landscape and Urban Planning*, 180, pp.195-206. <https://doi.org/10.1016/j.landurbplan.2018.09.005>
  41. Beckage, Brian, Louis Gross, Katherine Lacasse, Eric Carr, Sara Metcalf, Jonathan Winter, Peter Howe, Nina Fefferman, Travis Franck, **Asim Zia**, Ann Kinzig, and Forrest Hoffman (2018) Linking models of human behavior and climate alters projected climate change *Nature Climate Change* 8: 79-84. <https://doi.org/10.1038/s41558-017-0031-7>
  40. **Asim Zia**, Chris Koliba (2017) Dynamics of Intergovernmental Networks: Harnessing Agent Based Modeling Simulations for Resilient Infrastructures. *Journal of Policy and Complex Systems* 3(2): 49-71.
  39. Shang Wu, **Asim Zia**, Mengyuan Ren, Kent Messer (2017) Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *Journal of Policy and Complex Systems* 3(2): 164-188.
  38. Rachel Schattman, Ernesto Mendez, Scott Merrill, **Asim Zia** (2017) A mixed methods approach to understanding farmer and technical service provider perceptions of climate change and adaptation in Vermont, United States. *Agroecology and Sustainable Food Systems*. Online first: <http://dx.doi.org/10.1080/21683565.2017.1357667>
  37. Sarah Coleman, Stephanie Hurley, Christopher Koliba, **Asim Zia** (2017) Crowdsourced delphis: Designing solutions to complex environmental problems with broad stakeholder participation. *Global Environmental Change* 45: 111-123. <https://doi.org/10.1016/j.gloenvcha.2017.05.005>
  36. Steve Scheinert, **Asim Zia**, Christopher Koliba, and Scott Merrill (2017) Growing Collaborations: Forecasting Changes in Partnership Networks using a Bottom-Up Approach. *Journal of Policy and Complex Systems* 3(1) doi: 10.18278/jpcs.3.1.1
  35. A.R. Egan, W.S. Keeton, C.M. Danks, I. Soloviy, **A. Zia** (2017) Forest carbon projects in the Ukrainian Carpathians: an assessment of potential community impacts and benefits. *Annals of Forest Research* 60(1)
  34. **Zia, Asim**, Arne Bomblies, Andrew W. Schroth, Christopher Koliba, Peter D.F. Isles, Yushiou Tsai, Ibrahim N. Mohammed, Gabriela Bucini, Patrick Clemins, Scott Turnbull, Morgan Rodgers, Ahmed Hamed, Brian Beckage, Jonathan Winter, Carol Adair, Gillian L. Galford, Donna Rizzo and Judith Van Houten (2016) Coupled impacts of climate and land use change across a river-lake continuum: insights from an integrated assessment model of Lake Champlain's Missisquoi Basin, 2000-2040. *Environmental Research Letters* 11, Number 11. Available online at <http://iopscience.iop.org/article/10.1088/1748-9326/11/11/114026>
  33. Koliba, C., **Zia, A.**, Schroth, A., Bomblies, A., Van Houten, J., and Rizzo, D. (2016) The Lake Champlain Basin as a Complex Adaptive System: Insights from the Research on Adaptation to Climate Change ("RACC") Project. *Vermont Journal of Environmental Law* 17(4): 533-563
  32. Conner, D., Miller, J., **Zia, A.**, Wang, Q., and Darby, H. (2016) Conjoint Analysis of Farmers' Response to Conservation Incentives. *Sustainability* 8: 684; doi 10.3390/su8070684
  31. Koliba, C., Wiltshire, S., Scheinert, S., Turner, D., **Zia, A.**, Campbell, E. (2016) The critical role of information sharing to the value proposition of a food systems network. *Public Management Review*. Online First. DOI: 10.1080/14719037.2016.1209235
  30. James, T. A., Kreiger, L. M., **Zia, A.**, Gaalema, D., Jones, C., (2016) A Practical Framework for Incentive-Based Cancer Prevention. *Population Health Management*. April 2016 ahead of print. doi:10.1089/pop.2016.0007
  29. Schulz, Anna, **Asim Zia**, Christopher Koliba (2017) Adapting Bridge Infrastructure to Climate Change: Institutionalizing Resilience in Intergovernmental Transportation Planning Processes in the Northeastern United States. *Mitigation and Adaptation Strategies for Global Change* 22(1): 175-198
  28. Littenberg, B., Bonnell, L. N., LeBruin, A. S., Lubetkin, D. A., Troy, A. R., & **Zia, A.** (2015). The Relationship Between Access to Natural Environmental Amenities and Obesity. *Cureus*, 7(11).
  27. Tsai, Yushiou, **Asim Zia**, Christopher Koliba, Justin Guilbert, Gabriela Bucini, Brian Beckage (2015). An Interactive Land Use Transition Agent-Based Model (ILUTABM): Endogenizing Human-Environment Interactions at Watershed Scales. *Land Use Policy* 49: 161-176.

26. **Zia, A.**, Koliba, C. (2015) The Emergence of Attractors Under Multi-level Institutional Designs: Agent-Based Modeling of Intergovernmental Decision Making for Funding Transportation Projects. *AI & Society: Knowledge, Culture and Communication*: **30**: 315-331. DOI 10.1007/s00146-013-0527-2
25. Hamed, Ahmed; Alexa Ayer; Eric Clark; Erin Irons; Grant Taylor; **Asim Zia** (2015) Measuring Climate Change on Twitter Using Google's Algorithm: Perception and Events. *International Journal of Web Information Systems*: **11**(4). <http://dx.doi.org/10.1108/IJWIS-08-2015-0025>
24. Fernandez, Luca, Chris Koliba, **Asim Zia**, Katherine Cheung, Richard Solomon, Chris Jones (2015) System Dynamics Modeling can be Leveraged to Predict Critical Care Pathways and Costs for End Stage Renal Disease (ESRD): US Population to 2020. *Journal of Health Economics and Outcomes Research*, **3**(1): 24-33
23. Scheinert, Steve, Christopher Koliba, Stephanie Hurly, Sarah Coleman, and **Asim Zia** (2015) The Shape of Watershed Governance: Locating Network Boundaries within Multiplex Networks. *Complexity, Governance and Networks*, **2**(1): 65-82. DOI 10.7564 15-CGN25
22. Novak, David, Chris Koliba, **Asim Zia**, Matt Tucker (2015) Evaluating the outcomes associated with an innovative change in a state-level transportation project prioritization process: A case study of Vermont. *Transport Policy* **42**: 130-143
21. **Zia, Asim**, Courtney Hammond Wagner (2015) Mainstreaming Early Warning Systems in Development and Planning Processes: Multi-level implementation of Sendai Framework in Indus and Sahel. *International Journal of Disaster Risk Science* **6**(2): 189-199. DOI 10.1007/s13753-015-0048-3
20. **Zia, Asim**, Christopher Koliba, Jack Meek, Anna Schulz (2015) Scale and Intensity of Collaboration as Determinants of Performance Management Gaps in Polycentric Governance Networks: Evidence from a National Survey of MPOs. *Policy & Politics: Advancing Knowledge in Public and Social Policy* **43**(3): 367-390
19. **Zia, Asim**, Paul Hirsch, Hoang Van Thang, Tran Chi Trung, Sheila O'Connor, Thomas McShane, Pete Brosius, Bryan Norton (2015) Eliciting Inter-Temporal Value Trade-Offs: A Deliberative Multi-Criteria Analysis of Vietnam's Bai Tu Long National Park Management Scenarios. *IAFOR Journal of Sustainability, Energy and the Environment*: **2**(1): 41-62. <http://iafor.org/archives/journals/sustainability/v2n1/IJSEEv2n1a3.pdf>
18. Koliba, C., Berman, M., Brune, N., **Zia, A.** (2014) The Saliency and Complexity of Building, Regulating, and Governing the Smart Grid: Lessons from a Statewide Public-Private Partnership. *Energy Policy* **74**: 243-252 doi:10.1016/j.enpol.2014.09.013
17. Koliba, C., Reynolds, A., **Zia, A.**, and Scheinert, S. (2014). Isomorphic Properties of Network Governance: Comparing Two Watershed Governance Initiatives in the Lake Champlain Basin Using Institutional Network Analysis. *Complexity, Governance and Networks*. **1**(2): 99-118. DOI: 10.7564/14-CGN12
16. **Zia, A.**, Kauffman, S., Koliba, C., Beckage, B., Vattay, G., Bomblies, A. (2014) From the Habit of Control to Institutional Enablement: Re-envisioning the Governance of Social-Ecological Systems from the Perspective of Complexity Sciences. *Complexity, Governance and Networks*. **1**(1): 79-88. DOI: 10.7564/14-CGN4
15. **Zia, Asim**, Bryan Norton, Sara Metcalf, Paul Hirsch, Bruce Hannon (2014) Spatial Discounting, Place Attachment and Environmental Concern: Toward an Ambit-Based Theory of Sense of Place. *Journal of Environmental Psychology*. **40**: 283-295. DOI: 10.1016/j.jenvp.2014.08.001
14. Hirsch, Paul, Pete Brosius, Sheila O'Connor, **Asim Zia**, Meredith Welch-Devine, Juan Luis Dammert, Jennifer L. Rice, Zachary R. Anderson, Sarah Hitchner, John Schelhas, Thomas O. McShane (2013) Navigating Complex Trade-Offs in Conservation and Development: An Integrative Framework. *Issues in Integrative Studies* **31**: 99-122
13. **Zia, A.**, Kauffman, S., Niiranen, S. (2012) The Prospects and Limits of Algorithms in Simulating Creative Decision Making. *Emergence: Complexity and Organization (E:CO) – An International Transdisciplinary Journal of Complex Social Systems* **14** (3): 89-109.
12. **Zia, A.** (2012) Land Use Adaptation to Climate Change: Economic Damages from Land-Falling Hurricanes in the Atlantic and Gulf States of the USA, 1900-2005. *Sustainability* **4**: 917-932.
11. **Zia, A.**, and Glantz, M. (2012) Risk Zones: Comparative Lesson Drawing and Policy Learning from Flood Insurance Programs. *Journal of Comparative Policy Analysis: Research and Practice* **14**(2): 143-159.
10. **Zia, A.**, Paul Hirsch, Alexander N. Songorwa, David R. Mutekanga, Sheila O'Connor, Thomas McShane, Pete Brosius, Bryan Norton (2011) Cross-Scale Value Trade-Offs in Managing Social-

- Ecological Systems: The Politics of Scale in Ruaha National Park, Tanzania. *Ecology and Society* **16**(4):7. <http://dx.doi.org/10.5751/ES-04375-160407>
9. **Zia, A.**, and Koliba, C. (2011) Accountable Climate Governance: Dilemmas of Performance Management Across Complex Governance Networks. *Journal of Comparative Policy Analysis: Research and Practice* **13**(5): 479-497.
  8. Koliba, C., Mills, and **Zia, A.** (2011) Accountability in Governance Networks: An Assessment of Public, Private, and Nonprofit Emergency Management Practices Following Hurricane Katrina. *Public Administration Review* **71**(2): 210-220.
  7. Hirsch, P. D., Adams, B., Brosius, J. P., **Zia, A.**, Bariola, N., and Dammert, J. L. (2011) Acknowledging Conservation Trade-offs and Embracing Complexity. *Conservation Biology* **25**: 259-264.
  6. Koliba, C., Campbell, E. and **Zia, A.** (2011) Performance Measurement Considerations in Congestion Management Networks: Aligning Data and Network Accountability. *Public Performance Management Review*. **34**(4): 520-548.
  5. Koliba, C., **Zia, A.**, and Lee, B. H.Y. (2011) Governance Informatics: Managing the Performance of Inter-Organizational Governance Networks. *The Innovation Journal* **16**(1), Article 3.
  4. **Zia, A.**, Todd, A. M. (2010) Evaluating the Effects of Ideology on Public Understanding of Climate Change Science: How to Improve Communication Across Ideological Divides? *Public Understanding of Science* **19**(6): 743-761.
  3. Koliba, C., and **Zia, A.** (2009) Dispelling the Myth of the Invisible Hand: An Argument for Democratically Legitimate Inter-Organizational Governance Networks. *Administrative Theory & Praxis* **31**(2): 417-423
  2. **Zia, A.**, B. G. Norton, D. S. Noonan, M. O. Rodgers, and L. DeHart-Davis (2006) A Quasi-Experimental Evaluation of High Emitter Non-Compliance and its Impact on Vehicular Tailpipe Emissions in Atlanta, 1997-2001. *Transportation Research Part D: Transport and Environment* **11**(1): 77-96
  1. **Zia, A.** (2006) Cooperative and Non-Cooperative Decision Behaviors in Response to the Inspection and Maintenance Program in the Atlanta Airshed, 1997-2001: The APPAM Ph.D. Dissertation Award. *Journal of Policy Analysis and Management* **25**(3): 773-775

### **Book Chapters**

21. **Zia, A.**, Oikonomou, P. 2024 Early Warning and Early Action. PP. 18-32. Digital Technologies for Environmental Peacebuilding: Horizon Scanning of Opportunities & Risks. United Nations Environment Program. ISBN: 978-92-807-4164-3. <https://wedocs.unep.org/20.500.11822/45795>
20. **Zia, A.** (2024) Towards the Deployment of Food, Energy and Water Security Early Warning Systems as Convergent Technologies for Building Climate Resilience. PP. 99-118. In Zafar Adeel and Benno Böer (editor) *The Water, Energy, and Food Security Nexus in Asia and the Pacific*. UNESCO: ISBN UNESCO 978-92-3-100634-0 & Springer Series: Water Security in a New World. <https://doi.org/10.1007/978-3-031-29035-0>
19. **Zia, A.**, M. Hussain, K. Hameed (2022) Pakistan. PP. 63-73. In M. H. Glantz (editor) *El Nino Ready Nations and Disaster Risk Reduction (DRR)*. Springer Nature. DOI: 10.1007/978-3-030-86503-0
18. **Asim Zia** (2021) Synergies and Trade-Offs between Climate Change Adaptation and Mitigation across Multiple Scales of Governance. In Bernd Siebenhuener and Riyanti Djalante (editor) *Adaptiveness: Changing Earth System Governance*. Cambridge University Press. ISBN: 1108479022
17. **Zia, Asim**, Chris Koliba (2021) The Complexity of Integrating Sustainability with Transportation Asset Management Processes: Governance of Intergovernmental Decision-Making on Prioritizing Transportation Infrastructure Projects. In Jack Meek (editor). *Handbook of Collaborative Public Management*. Pages 83-95. ISBN: 978 1 78990 190 0
16. **Zia, Asim** (2020) Participatory Multi-Criteria Evaluation of Metropolitan Transportation Planning Scenarios: Assessing Trade-Offs Between Business-As-Usual and Alternate Sustainable Community Designs. In Bianchi, C., Luna-Reyes, L. F., and Rich, E. (editors). *Enabling Collaborative Governance Through Systems Modeling Methods: Public Policy Design and Implementation*. (Springer Series on "System Dynamics for Performance Management & Governance"). ISBN 978-3-030-42970-6
15. **Zia, Asim**, Roel Boumans (2020) Designing Participatory Decision Support Systems: Towards Meta-Decision Making Analytics in the Next Generation of Ecological Economics. In "Sustainable Wellbeing



Futures: A Research and Action Agenda for Ecological Economics". Edward Elgar.

<https://doi.org/10.4337/9781789900958.00031>

14. Chris Koliba, **Asim Zia**, Scott Merrill (2019) Using Agent-Based Models to Study Network and Collaborative Governance. In Voets, J. Keast, R. and Koliba, C. (editors). *Networks and Collaboration in the Public Sector: Essential research approaches, methodologies, and analytic tools* (Routledge) ISBN 9781138682726
13. **Asim Zia** (2018) Adaptive Management in Social Ecological Systems: Taming the Wicked? In Int. Library of Environm., Vol. 26, Sahotra Sarkar and Ben A. Minteer (Eds): *A Sustainable Philosophy - The Work of Bryan Norton*, Springer. ISBN 978-3-319-92596-7, 432683\_1\_En (11)
12. **Zia, Asim**, Christopher Koliba, Jack Meek, Anna Schulz (2018) Scale and Intensity of Collaboration as Determinants of Performance Management Gaps in Polycentric Governance Networks: Evidence from a National Survey of MPOs. In Chris Ansell and Jacob Torfing (Ed.) *How Does Collaborative Governance Scale? New Perspectives in Policy & Politics*. Sarah Ayers and Matt Flinders (Series Editors). Policy Press, University of Bristol, UK. Pages 65-94.
11. Ali, Saleem; Asim Zia (2016) Transboundary Data Sharing and Resilience Scenarios: Harnessing the Role of Regional Organizations for Environmental Security. In Zafar Adeel, Robert Wirsing (Ed.) *Imagining Induslan: Overcoming Water Insecurity in the Indus Basin*. Heidelberg, Springer.
10. Hamed, Ahmed Abdeen; Asim Zia (2015) Mining Climate Change Awareness on Twitter: A PageRank Network Analysis Method. In *Computational Science and Its Applications – ICCSA 2015 Volume 9155 of the series Lecture Notes in Computer Science* (pp. 16-31). Heidelberg, Springer. [Online: [http://link.springer.com/chapter/10.1007%2F978-3-319-21404-7\\_2](http://link.springer.com/chapter/10.1007%2F978-3-319-21404-7_2)]
9. Koliba, Chris; **Asim Zia** (2015) Educating Public Managers and Policy Analysts in an Era of Informatics. In Marijn Janssen, Maria A. Wimmer, Ameneh Deljoo (Ed.) *Policy Practice and Digital Science: Integrating Complex Systems, Social Simulation and Public Administration in Policy Research* (pp. 15-34). Heidelberg, Springer.
8. Schattman, R., Mendez, V. E., Westdijk, K., Caswell, M., Conner, D., Koliba, C., Zia, A., Hurley, S., Adair, E.C., Berlin, L., & Darby, H. (2015). Vermont agricultural resilience in a changing climate: A transdisciplinary and participatory action research (PAR) process. In N. Benkeblia (Ed.), *Agroecology, ecosystems, and sustainability* (pp. 326–346). Boca Raton, FL: CRC Press/Taylor & Francis.
7. **Zia, A.**, Kelman, I., Glantz, M. (2015) Arctic Melting Tests the United Nations Convention on the Law of the Sea. In *Diplomacy on Ice: Energy and the Environment in the Arctic and Antarctic*. Editors: S. Ali and R. Pincus. Yale University Press, New Haven CT, Pages 128-140
6. Koliba, C., **Zia, A.** (2015) Governance Informatics: Using computer simulation models to deepen situational awareness and governance design considerations. In *Governance in the Information Era: Theory and Practice of Policy Informatics*. Editor: E. Johnston. Routledge Press, London UK, Pages 189-212
5. **Zia, A.**, Hameed, K. (2014) Politics of Conflict in Pakistan's Tribal Areas: Vulnerability Reduction in Violence-Prone Complex Adaptive Systems. In *Middle East Conflicts & Reforms*, edited by Mohammed M. Aman and M. J. Parker Aman. Washington, DC: Policy Studies Organization/Westphalia Press, Pages 223-236. ISBN-13:978-1941472002
4. Beckage, B., Kauffman, S., **Zia, A.**, Koliba, C. and Gross, L. J. (2013) More complex complexity: exploring the nature of computational irreducibility across physical, biological, and human social systems. In *Irreducibility and Computational Equivalence: Wolfram Science 10 Years After the Publication of A New Kind of Science*.
3. **Zia, A.**, Koliba, C., Tian, Y.(2012). Governance Network Analysis: Experimental Simulations of Alternate Institutional Designs for Intergovernmental Project Prioritization Processes. In L. Gerrits & P.K. Marks (Eds.), *COMPACT I: Public Administration in Complexity*. Litchfield Park: Emergent Publications. Pages 144-165.
2. Koliba, C., **Zia, A.**, (2012) "Complexity Friendly" Meso-Level Public Administration and Policy Studies Frameworks for Modeling Complex Governance Systems: Challenges and Opportunities for a Meta-Theoretical Research Program. In L. Gerrits & P.K. Marks (Eds.), *COMPACT I: Public Administration in Complexity*. Litchfield Park: Emergent Publications. Pages 119-136.
1. Koliba, C., Meek, J., and **Zia, A.** (2010) Gordian Knot or Integrated Theory? Critical Conceptual Considerations for Governance Network Analysis. In *The Future of Governance: Selected Papers from the Fifth Transatlantic Dialogue on Public Administration*. Taco Brandsen and Marc Holzer (Editors). Published by National Center for Public Performance (NCP), Newark NJ. Pages 277-300.



## Books

4. Koliba, C., Meek, J., **Zia, A** and Mills, R. W. (2018) *Governance Networks in Public Administration and Public Policy*. Second Edition. Routledge. ISBN: 9781351976596
3. **Zia, A.** (2013) *Post-Kyoto Climate Governance: Confronting the Politics of Scale, Ideology and Knowledge*. Routledge, London UK
2. Koliba, C., Meek, J., and **Zia, A** (2010) *Governance Networks in Public Administration and Public Policy*. CRC Press, Boca Raton FL
1. **Zia, A.** (1999) *Can Beggars Be Choosers: a Critique of Pak-German Developmental Cooperation*. Heinrich Boell Foundation. Lahore, Pakistan/ Berlin, Germany

## Published Abstracts, Papers in Conference Proceedings, Invited Papers, Electronic Databases and Technical Reports

19. Andrew, K, **Zia, A.**, Rizzo, D. (2024) Integrating Deep Reinforcement Learning into Agent-Based Models for Predicting Farmer Adaptation under Policy and Environmental Variability. K. Arai. (ed.) *Intelligent Systems and Applications: Proceedings of the 2024 Intelligent Systems Conference (IntelliSys), Lecture Notes in Networks and Systems (LNNS) 1066*, pp. 221–238. [https://doi.org/10.1007/978-3-031-66428-1\\_13](https://doi.org/10.1007/978-3-031-66428-1_13)
18. Merrill, S.C., Christopher Koliba, Rodrigo Soares, Ruth Quainoo, Eric Clark, Trisha Shrum, Masood Ali-Khan, Molly Myers & Asim Zia (2024). Simulation-Based Experiments Reveal Differences in the Efficiency of Responses to Flood Warning Messages in Crisis. *Proceedings of the International Crisis and Risk Communication Conference, Volume 6* (pp. 49-53). Orlando FL: International Crisis and Risk Communication Association. <https://www.doi.org/10.69931/SMHU9552>
17. Merrill, S. C., Bucini, G., Clark, E. M., Koliba, C.J., Trinity, L., **Zia, A.**, Langle-Chimal, O., Cheney, N., Shrum, T. R., Sellnow, T., Sellnow, D. D., & Smith, J.M. (2021). Why we need to account for human behavior and decision-making to effectively model the non-linear dynamics of livestock disease. *Proceedings of the International Crisis and Risk Communication Conference, Volume 4* (pp. 23-28). Orlando FL: Nicholson School of Communication and Media. <https://doi.org/10.30658/icrcc.2021.06>
16. Patrick J Clemins, Scott Turnbull, Morgan Rodgers, and Asim Zia. 2020. Implementing a Loosely-Coupled Integrated Assessment Model in the Pegasus Workflow Management System. In *Practice and Experience in Advanced Research Computing (PEARC '20)*, July 26–30, 2020, Portland, OR, USA. ACM, New York, NY, USA, 9 pages. <https://doi.org/10.1145/3311790.3396638>
15. Asim Zia\*, Michael Widener, Sara Metcalf and Chris Koliba. 2017. Modeling Voting Decisions in Governance Networks for Agents with Heterogeneous Mental Models and Alternate Network Structures. In *Proceedings of the 2017 International Conference of The Computational Social Science Society of the Americas 2017 Oct 19* (p. 14). ACM. doi>[10.1145/3145574.3145592](https://doi.org/10.1145/3145574.3145592)
14. Zia, A., C. Koliba, M. Tucker (2017) Intergovernmental dynamics of transportation planning: Why some towns attract more federal funding than others? *Proceedings of the 35<sup>th</sup> International Conference of the System Dynamics Society*.
13. Zia, A., M. Hussain, K. Hameed (2017) Pakistan. In M. H. Glantz (editor) *El Nino Ready Nations and Disaster Risk Reduction (DRR)*. A Report for US-AID and NOAA
12. Zia, A., C. Koliba (2013) Agent-Based Modeling of Intergovernmental Decision Making: How Institutional Rules Generate Basins of Attraction in Funding Transportation Projects. *Transportation Research Board 92<sup>nd</sup> Annual Meeting*. Washington DC, January 2013. Paper No. 13-2153.
11. Zia, A., Koliba, C., De Pinto, T. (2012) Multi-Criteria Evaluation of Metropolitan Transportation Planning Scenarios: Assessing Trade-Offs Between Business-As-Usual and Alternate Sustainable Community Designs. *Transportation Research Board 2012 Annual Meeting*, Washington DC, January 2012. Paper no. 12-2461.
10. Zia, A., Koliba, C., Campbell, E., Lee, B. H. Y, Meek, J., Colangelo, D. (2011) Prioritization of Performance Measures for MPOs: Understanding the Effects of Contextual Complexity and Collaborative Capacity from a National-Level Survey. *Transportation Research Board 2011 Annual Meeting*, Washington DC, January 2011. Paper no. 11-2913.
9. Zia, A. (2009) Can South Asia “Leapfrog” into the Future? Policy Options to Sustain Low Carbon Intensity Amidst Rising Per Capita Income. *Energy Network*, 2: 6-9

8. Zia, A. (2009) Mobile Emissions. *Global Reference on the Environment, Energy, and Natural Resources Online Collection*. Detroit: Gale. Public Trial Site. 28 Aug. 2009  
<<http://find.galegroup.com/grnr/start.do?prodId=GRNR>>
7. Zia, A. (2008) An Ambit-Based Activity Model for Evaluating Green House Gas Emission Reduction Policies. *Mineta Transportation Institute and California Department of Transportation*. Available online at [www.dot.ca.gov/newtech/researchreports/reports/2008/an\\_ambit-based\\_activity\\_model.pdf](http://www.dot.ca.gov/newtech/researchreports/reports/2008/an_ambit-based_activity_model.pdf)
6. Zia, A., and Arenstein, W. (2007) An Evaluation Framework for Indirect Source Review (ISR) Programs: Current Controversies and Future Prospects. *Proceedings of the Air & Waste Management Association's 100<sup>th</sup> Annual Conference & Exhibition*, Pittsburgh PA, Paper no. 801
5. Zia, A., R. Morss, and J. Lazo (2005) Societal Value of Improved Quantitative Precipitation Forecasts: A Synthesis. *Proceedings of the First THORPEX/WMO International Science Symposium, Montréal, Canada*. World Meteorological Organization, Geneva
4. Zia, A. (2005) An Emission-Inventory Based Methodology to Evaluate Vehicle Inspection and Maintenance Programs: A Case-Study of the Atlanta Airshed 1997-2001. *Proceedings of the Air & Waste Management Association's 98th Annual Conference & Exhibition*, Minneapolis MN. Paper no. 1310. Also appeared in *Transportation Research Board's 85<sup>th</sup> Annual Meeting* as paper no. 06-1292. Available on CD-ROMs
3. Zia, A., M. O. Rodgers, D. S. Noonan, B. G. Norton (2003) Cooperative and Non-cooperative Behavioral Strategies: An Evaluation of the Impact of High-emitting Vehicle Owners on Vehicular Emissions in the Atlanta Airshed. *Submitted to Air Protection Branch, Georgia Environmental Protection Division*. Atlanta
2. Zia, A. (1999) Annual Assistance from Aid-to-Pakistan Consortium. *Submitted to Economic Affairs Division, Ministry of Finance and Economic Affairs*. Islamabad, Pakistan
1. Zia, A. (1995, 1996, 1997) A Review of Annual Bilateral Negotiations between Pakistan and Germany. *Submitted to Economic Affairs Division, Ministry of Finance and Economic Affairs*. Islamabad, Pakistan

## **ARTICLE PRESENTATIONS IN NATIONAL AND INTERNATIONAL CONFERENCES**

- **Oral** (\* signifies presenter)

157. **Asim Zia\***, Benjamin Ryan, Donna M. Rizzo, Scott Merrill, Eric Clark, Maaz Gardezi (2025) Predicting AI Sceptics vs. AI Trusters: Harnessing Choice Experiments to Explain the Adoption of AI-augmented Decision Support Systems. XXIX IRSPM Annual Conference 2025, April 7-9, Bologna, Italy
156. Asim Zia\*, Andrew W. Schroth, Patrick J. Clemins, Panagiotis Oikonomou (2025) Adaptive Governance of Coupled Collective Action Dilemmas: Accounting for Lags, Thresholds and Cross-Scale Interactions in Sustaining Freshwater Lakes in the face of Climate Change, XXIX IRSPM Annual Conference 2025, April 7-9, Bologna, Italy
155. Christopher Koliba, **Asim Zia\*** (2025) Networks of the Policy Process: Meta-Frameworks and Modularity, XXIX IRSPM Annual Conference 2025, April 7-9, Bologna, Italy
154. **Zia, A.\*** (2025) Artificial Intelligence as a tool for public administrators. American Society of Public Administration (ASPA) annual conference. March 2025. Washington DC.
153. **Asim Zia\***, Richmond Baye, Scott Merrill, Eric Clark, Jackson Dean, Samuel Rosenblatt, Nick Cheney, Laurent Hebert-Dufresne, Julie Smith. (2025) Testing alternate biosecurity policy mechanisms to overcome moral hazard problem in indemnifying cattle producers. Conference of Research Workers in Animal Disease (CRWAD). January 2025. Chicago, IL.
152. **Baye\*, Richmond**; Asim Zia, Scott Merrill, Eric Clark, Julie Smith (2025) Regional variability in biosecurity investment choices in the United States: the role of sociopsychological and demographic factors. Conference of Research Workers in Animal Disease (CRWAD). January 2025. Chicago, IL.
151. **Zia, A.\***, Andrew, K., Bano, R., Turnbull, S., Clemins, P. J., Wshah, S., & Rizzo, D.M. (2024). Predicting Land Use Land Cover Change with Deep Reinforcement Learning enabled Agent Based Models by Simulating Adaptive Human System Feedback in Multi-Scale Human-Land-Environment Interactions. American Geophysical Union Fall Meeting 2024 (AGU24), Washington DC. December 9–13, 2024.

150. Baye, R.S., Smith\*, J., **Zia, A.** (2024). Unraveling the nexus of farm-level biosecurity and transboundary animal disease prevention: evidence from regret minimization models. International Symposium on Veterinary Epidemiology and Economics. November 2024. Sydney, Australia.
149. Andrew, K, **Zia, A\***, Rizzo, D. (2024) Integrating Deep Reinforcement Learning into Agent-Based Models for Predicting Farmer Adaptation under Policy and Environmental Variability. *2024 Intelligent Systems Conference (IntelliSys), September 2024. Amsterdam, Netherlands*
148. Asim Zia\* (2024) Modeling the Dynamics of Heterogeneous Climate Change Risk Perceptions: An Agent Based Model of US Population, 2010-2030. *Conference on Complex Systems (CCS'24), September 2024. Exeter, UK.*
147. Asim Zia\* (2024) Planetary Sustainability at Crossroads: Transforming Global Governance through Decolonization and Democracy. *GlobalGoals2024: The Future of the SDGs. An International Research Conference. August 2024. Utrecht, The Netherlands.*
146. Asim Zia\*, Benjamin Ryan, Halimeh AbuAyyash, Donna M. Rizzo, Scott Merrill, Eric Clark, Maaz Gardezi (2024) Harnessing Choice Experiments to Elicit Preferred Configurations of Trustworthy AI augmented Decision Support Systems (AI-DSS) for Crop Certified Advisors. *12th International Congress on Environmental Modelling and Software. June 2024. East Lansing MI.*
145. Asim Zia\*, Andrew W. Schroth, Peter Isles, Patrick J. Clemins, Panagiotis D. Oikonomou, Scott Turnbull, Brian Beckage, Donna M. Rizzo (2024) Integrated Harmful Algal Bloom Early Warning Systems can Quantify the Impact of Early vs. Delayed Policy Actions for Building Climate Resilience. *12th International Congress on Environmental Modelling and Software. June 2024. East Lansing MI.*
144. Asim Zia\* (2024) Harnessing Artificial Intelligence augmented Food, Energy and Water Security Early Warning Systems as Convergent Technologies for Building Peace and Climate Resilience. Third International Conference on Environmental Peacebuilding. June 2024. The Hague, Netherlands.
143. Adil, M., Oikonomou, P.D., Rizzo, D.M., Clemins, P.J., Turnbull, S., Schroth, A.W., Isles, P.D.F., Hannoun, K.I., Hannoun, I.A., Zia, A., & Wshah, S.. (2023). Deep Learning Framework to Predict Harmful Algal Blooms by Leveraging Multi-Modal Data. American Geophysical Union Fall Meeting 2023 (AGU23), San Francisco, CA. December 11–15, 2023.  
<https://agu.confex.com/agu/fm23/meetingapp.cgi/Paper/1422569>
142. Oikonomou, P.D., Yen, H., Clemins, P.J., Rizzo, D.M., Schroth, A.W., Turnbull, S., & Zia, A. (2023). Future Climate Impacts on a Highly Heterogeneous Watershed in Vermont. American Geophysical Union Fall Meeting 2023 (AGU23), San Francisco, CA. December 11–15, 2023.  
<https://agu.confex.com/agu/fm23/meetingapp.cgi/Paper/1441066>
141. Oikonomou, P.D., Zia, A., Clemins, P.J., Turnbull, S., Schroth, A.W., Hannoun, K.I., Hannoun, I.A., Isles, P.D.F., & Rizzo, D.M. (2023). An Integrated Process-based Modelling Approach for Forecasting Lake Cyanobacteria Blooms Development: A Hindcast Experiment. American Geophysical Union Fall Meeting 2023 (AGU23), San Francisco, CA. December 11–15, 2023.  
<https://agu.confex.com/agu/fm23/meetingapp.cgi/Paper/1450905>
140. Zia, A., Oikonomou, P.D., Clemins, P.J., Schroth, A.W., Wshah, S., & Rizzo, D.M. (2023). Securing Clean Water in Transboundary River Basins through Open Science and Environmental Diplomacy: Piloting AI augmented Hydro-climatic Multi-hazard Early Warning Early Action Lead Systems. American Geophysical Union Fall Meeting 2023 (AGU23), San Francisco, CA. December 11–15, 2023. <https://agu.confex.com/agu/fm23/meetingapp.cgi/Paper/1355225>
139. Clemins, P.J., Zia, A., Adil, M., Wshah, S., O'Neil-Dunne, J.P., Oikonomou, P.D., Rizzo, D.M., Schroth, A.W., Isles, P.D.F., Hannoun, K.I., Hannoun, I.A., Blocher, S., Turnbull, S., Beckage, N.B., Bailey, M., Unveren, H., Duffaut-Espinosa, L., & Pinder, G. (2024). Using Remote Sensing Data to Train, Evaluate, and Adapt Harmful Algal Bloom Forecast Models. AGU Chapman Conference on Remote Sensing of the Water Cycle, Honolulu, HI. February 13–16, 2024.  
<https://agu.confex.com/agu/24chapman1/meetingapp.cgi/Paper/1493708>
138. Clemins, P.J., Beckage, N.B., Oikonomou, P.D., Turnbull, S., & Zia, A. (2024). (Lightning Talk) Computational Workflow Design for a Cyanobacterial Harmful Algal Bloom (CyanoHAB) Forecast Skill Elasticity Experiment. CIROH Developers Conference, Salt Lake City, UT. May 29–June 1, 2024. <https://ciroh.ua.edu/devconference/abstracts/>
137. Oikonomou, P.D., Clemins, P.J., Beckage, N.B., Turnbull, S., Schroth, A.W., Rizzo, D.M., & Zia, A.. (2024). Multi-Scale Forecast Skill Evaluation Framework for Integrated Early Warning Systems. 12th

- International Congress on Environmental Modelling and Software (iEMSs), East Lansing, MI. June 23–27, 2024. <https://conference.iemss.org/timetable/event/d3/>
136. Asim Zia\*, Amy H. Delgado, Gabriela Bucini, Scott C. Merrill, Christopher Koliba, Gemma Del Rossi, Richmond S. Baye, Bo Norby, Julie M. Smith. (2024) Testing an Extended Theory of Planned Behavior to Explain Cattle Producers' Intent to Comply with FMD Controls. Conference of Research Workers in Animal Disease (CRWAD). January 2024. Chicago, IL.
  135. Asim Zia\*, Richmond Baye, Scott Merrill, Eric Clark, Gemma Del Rossi, Jackson Dean, Samuel Rosenblatt, Nick Cheney, Laurent Hebert-Dufresne, Julie Smith. (2024) Eliciting Behavioral Responses to Alternate Biosecurity Risk Management Strategies in a Stochastic Game. Conference of Research Workers in Animal Disease (CRWAD). January 2024. Chicago, IL.
  134. Halimeh Abuayyash\*; Ben Ryan; Ali Dadkhah; Rubaina Anjum; Sardorbeck Musayev; Scott Merrill; Scott Turnbull; Donna Rizzo; Asim Zia (2023) Smart Resilient Landscapes: Leveraging AI, Sensors, and Games to Nudge Sustainable Behaviors at the Nexus of Climate, Food and Water Interactions. American Society of Public Administration (ASPA) annual conference. March 20-24, 2023.
  133. Benjamin E.K. Ryan\*, Halimeh Abuayyash; Rubaina Anjum; Ali Dadkhah; Scott Merrill, Scott Turnbull; Donna Rizzo; Asim Zia (2023) Non-point source pollution regulation in the Age of Artificial Intelligence (AI): Can incentive payments be coupled with AI-driven information technologies to balance the competing goals of public service provisioning and private profit- making enterprises? American Society of Public Administration (ASPA) annual conference. March 20-24, 2023.
  132. Asim Zia\*, Eric Clark, Gabriela Bucini, Richmond Baye, Scott Merrill, Christopher Koliba, Nick Cheney, Laurent Hebert-Dufresne, Julie Smith, Discovering Leverage Points for Enhancing Biosecurity in Swine Production Networks Using Agent Based Models . Conference of Research Workers in Animal Disease (CRWAD). January 2023. Chicago, IL.
  131. Baye\*, Richmond, Julie Smith, Asim Zia, Eric Clark, Scott Merrill, Chris Koliba. Understanding how indemnity affects biosecurity measures by United States swine producers. Conference of Research Workers in Animal Disease (CRWAD). January 2023. Chicago, IL.
  130. Asim Zia\*, Andrew W. Schroth, Patrick J. Clemins, Panagiotis Oikonomou , Jory Hecht , Scott Turnbull, Brian Beckage, Jonathan Winter, Donna Rizzo (2022) Simulating Lags, Tipping Points and Cross Scale Interactions in Integrated Socio-Environmental Systems: Evaluating the Impacts of Early vs. Delayed Nutrient Reductions under Alternate Hydro-Climatic Scenarios in Missisquoi Bay, 2000-2050. American Geophysical Union (AGU) annual conference, Chicago IL, USA. December 2022
  129. Asim Zia\* , Andrew W. Schroth , Patrick J Clemins and Panagiotis D. Oikonomou (2022) Accounting for Lags, Phase Transitions and Cross Scale Dynamics in Sustaining Freshwater Lakes. 13<sup>th</sup> Annual Meeting of Earth System Governance. Toronto, Canada. October 2022.
  128. Ben Ryan\*, Asim Zia (2022) Are performance-based payment for ecosystem services inherently reflexive? 13<sup>th</sup> Annual Meeting of Earth System Governance. Toronto, Canada. October 2022.
  127. Ben Ryan\*, Asim Zia (2022) Sustainable transitions in agriculture: Using conjoint analysis to inform anticipatory governance. 13<sup>th</sup> Annual Meeting of Earth System Governance. Toronto, Canada. October 2022.
  126. Asim Zia\* (2022) Theorizing Climate Diplomacy: Frameworks, Applications and Models. 13<sup>th</sup> Annual Meeting of Earth System Governance. Toronto, Canada. October 2022.
  125. Asim Zia\* , Andrew W. Schroth , Patrick J Clemins and Panagiotis D. Oikonomou (2022) Accounting for Lags, Inertia and Cross Scale Dynamics in Sustaining Freshwater Lakes. AGU Frontiers in Hydrology Conference, San Juan, Puerto Rico, USA. June 2022.
  124. Asim Zia\* , Panagiotis D. Oikonomou , Andrew W. Schroth and Patrick J Clemins (2022) Anticipatory Ecosystem Management of Regime Shifts in Social Ecological Systems: Navigating Trade-Offs in Public Investments Across Farms, Forests and Cities. AGU Frontiers in Hydrology Conference, San Juan, Puerto Rico, USA. June 2022.
  123. Asim Zia\*, Katherine Lacasse, Nina Fefferman, Louis Gross, Brian Beckage, (2022) Machine learning a probabilistic structural equation model to explain the impact of climate risk perceptions on policy support. *American Society for Public Administration (ASPA) 2022 Annual Conference*. Jacksonville FL. March 18-22, 2022
  122. Asim Zia\* (2022) Theorizing Climate Diplomacy: Evaluating Competing Frameworks, Applications and Models. *2nd Environmental Peacebuilding Association (ENPAX) biannual conference*, Geneva, Switzerland. February 2-4, 2022



121. Asim Zia\* (2022) Highlands to Oceans (H2O): Anticipatory Governance of Hydroclimatic Regime Shifts in Transboundary River Basins. *2nd Environmental Peacebuilding Association (ENPAX) biannual conference*, Geneva, Switzerland. February 2-4, 2022.
120. Hannoun\* K, Hannoun I, Qi X, Schroth AW, Zia A, Turnbull S, Clemens PJ. (2021) Three-Dimensional Modeling of Eutrophication and Cyanobacteria Growth in Two Shallow Bays of Lake Champlain. North American Lake Management Society NALMS 2021. Available from: <https://z0ku333mvy924cayk1kta4r1-wpengine.netdna-ssl.com/wp-content/uploads/2021/11/NALMS-2021-Abstracts-20211116.pdf>
119. Asim Zia\* (2021) Highlands to Oceans: Anticipatory Governance of Hydroclimatic Regime Shifts in Transboundary River Basins. UN Climate Conference COP26. Glasgow, UK. November 1-12, 2021
118. Asim Zia\*, Katherine Lacasse, Nina Fefferman, Brian Beckage, Louis Gross (2021) Machine learning a probabilistic structural equation model to explain the impact of climate risk perceptions on policy support. *12<sup>th</sup> Annual Meeting of Earth System Governance*. Bratislava, Slovakia. September 7-9, 2021
117. Benjamin Ryan\*, Asim Zia, Maaz Gardezi, Donna Rizzo (2021) Anticipatory governance of AI and data driven precision agriculture technologies. *12<sup>th</sup> Annual Meeting of Earth System Governance*. Bratislava, Slovakia. September 7-9, 2021.
116. Maaz Gardezi\*, Asim Zia (2021) Interrogating the dominant and peripheral socio-technical futures in US agriculture. *12<sup>th</sup> Annual Meeting of Earth System Governance*. Bratislava, Slovakia. September 7-9, 2021
115. Merrill\*, S. C., Bucini, G., Clark, E. M., Koliba, C.J., Trinity, L., Zia, A., Langle-Chimal, O., Cheney, N., Shrum, T. R., Sellnow, T., Sellnow, D. D., & Smith, J.M. (2021). Why we need to account for human behavior and decision-making to effectively model the non-linear dynamics of livestock disease. *Proceedings of the International Crisis and Risk Communication Conference, Volume 4* (pp. 23-28). Orlando FL: Nicholson School of Communication and Media. <https://doi.org/10.30658/icrcc.2021.06>
114. Zia\*, A., (2021) How real is the fake: An analysis of online psychographic approaches to influence voting patterns. *American Society for Public Administration (ASPA) 2021 Annual Conference*. April 2021, Online
113. Oikonomou\*, P. D., Zia, A., et al. (2021) Investigating Possible Effects of Changing Hydroclimatic Persistence on Lake Cyanobacterial Harmful Algal Blooms. European Geophysical Union (EGU) General Assembly 2021 in session NH1.7 - "Extreme meteorological and hydrological events induced by severe weather and climate change." April 2021, Online.
112. Oikonomou\*, P. D., Zia, A., Schroth, A. W., Marti, C. L., Clemens, P. J., Rizzo, D. M., Beckage, B., and Winter, J. (2019). An Integrated Modeling Approach to Assess the Impact of Climate Change Induced Extreme Events and Non-Stationarity on Lake Cyanobacteria Blooms. *2019 Fall Meeting, American Geophysical Union*, H14B-07 oral presentation, San Francisco, CA.
111. Asim Zia\* Andrew Schroth, Jory Hecht, Patrick Clemens (2019) Anticipatory Governance of Regime Shifts in Social Ecological Systems: Building Resilience to Climate Change in Transboundary Lake Champlain. *11<sup>th</sup> Annual Meeting of Earth System Governance*, November 6-8, 2019 Oaxaca, Mexico
110. Asim Zia\* (2019) Foreign Direct Investments vs. Payment for Ecosystem Service Mechanisms: Why transformations in earth system governance are needed to conserve tropical forests? *11<sup>th</sup> Annual Meeting of Earth System Governance*, November 6-8, 2019 Oaxaca, Mexico
109. Asim Zia\* (2019) Environmental Diplomacy in the Indus River Basin: Prospects & Challenges. *Annual meeting of Environmental Peacebuilding Association*. October 23-25, 2019. Irvine CA
108. Asim Zia\* (2019) How Equitable are Green House Gas Emission Entitlements in the Paris Agreement? Overcoming Politics of Knowledge in International Climate Governance. *World Forum on Climate Justice*. June 19-21, 2019
107. Asim Zia\*, Scott Merrill, Chris Koliba, Eric Clark, Gabriella Buccini, Gemma Del Rossi, Nick Cheney, Ollin Chimal, Trisha Shrum, Susan Moegenberg, Julie Smith (2019) Identifying Leverage Points for Biosecurity Risk Management Using Massive Online Games and Agent-Based Models. *NetSci 2019 Annual Conference of the Network Science Society* May 27-31, Burlington VT
106. Asim Zia\* (2019) Meta-decision modeling of wicked environmental policy design problems: Understanding conservation versus development valuation conflicts in Tanzanian, Vietnamese and



- Peruvian social-ecological systems. Conference on Complexity and Policy Studies, April 15-17, Washington DC.
105. Zia\*, A., Delgado, A., Bucini, G., Merrill, S. C., Koliba, C., Del Rossi, G., Norby, B., Moegenburg, S. M., Smith, J. M. (2019) Socio-Psychological Determinants of Cattle Producers' Intent to Comply with Animal Disease Control Practices: A Structural Equation Modeling Approach. *American Society for Public Administration (ASPA) 2019 Annual Conference*. Washington DC. March 7-11, 2019.
  104. Asim Zia\* (2019) Advancing public service through big data and artificial intelligence: challenges and opportunities. *American Society for Public Administration (ASPA) 2019 Annual Conference*. Washington DC. March 7-11, 2019
  103. Forrest M. Hoffman\*, Brian Beckage, Louis J. Gross, Katherine Lacasse, Eric Carr, Sara S. Metcalf, Jonathan Winter, Peter D. Howe, Nina H Fefferman, Travis Franck, Asim Zia and Ann Kinzig (2018) Linking models of human behaviour and climate alters projected climate change. *American Geophysical Union (AGU) 100<sup>th</sup> annual meeting*. Washington DC. December 10-14, 2018
  102. Asim Zia\* (2018) Mainstreaming food, energy and water security early warning systems for adaptation to climate change. *United Nations Framework Convention for Climate Change (UNFCCC) 24<sup>th</sup> Conference of Parties (COP 24)*. Katowice, Poland. December 3-14, 2018.
  101. Asim Zia\*, Nina Fefferman, Katherine Lacasse, Peter Howe, Ann Kinzig, Sara Metcalf, Travis Franck, Forrest Hoffman, Jonathan Winter, Brian Beckage, Louis Gross (2018) Do climate risk perceptions induce behavioral change and policy action? Machine learning the feedback effects from perceived risks to mitigation of climate change. *10<sup>th</sup> Annual Meeting of Earth System Governance*. Utrecht, Netherlands. November 5-8, 2018.
  100. Asim Zia\* (2018) Global democracy-deficit in the age of Anthropocene: pros and cons of institutionalizing an elected global parliament. *10<sup>th</sup> Annual Meeting of Earth System Governance*. Utrecht, Netherlands. November 5-8, 2018.
  99. Ivanova, Antonina, Asim Zia\*, Mairon Bastos Lima, Paiman Ramzan (2018) Climate mitigation: energy, negative greenhouse gases, and forests. *10<sup>th</sup> Annual Meeting of Earth System Governance*. Utrecht, Netherlands. November 5-8, 2018.
  98. Asim Zia\*, Nina Fefferman, Katherine Lacasse, Peter Howe, Ann Kinzig, Sara Metcalf, Travis Franck, Forrest Hoffman, Jonathan Winter, Brian Beckage, Louis Gross (2018) Machine learning human risk perceptions, induction of green behaviors and support for climate policy. Conference on Complex Systems. Thessaloniki, Greece. September 23-28, 2018
  97. Asim Zia\*, Chris Koliba, Scott Merrill, Gabriella Buccini, Eric Clark, Serge Wiltshire, Susan Moegenberg, Julie Smith (2018) Identifying leverage points for biosecurity risk management using massive online games and agent-based models. Conference on Complex Systems. Thessaloniki, Greece. September 23-28, 2018.
  96. Bucini\* G., E. Clark, S. C. Merrill, S. M. Moegenburg, S. Wiltshire, A. Zia, C. J. Koliba and J. M. Smith. Perceptions and risk attitudes affect biosecurity investment and compliance decisions with ramifications for disease control and economics at the hog production supply chain level. Allen D. Leman Swine Conference, 15-18 Sep. 2018, Saint Paul, MN.
  95. Bucini\* G., S. Wiltshire, E. Clark, S.C. Merrill, C. Koliba, A. Zia, L. Trinity, S. Moegenburg and J. M. Smith. Interactive model-based tools for animal disease simulation and intervention strategies. ISESSAH-InnovSur 2018 Conference, 14-18 May 2018, Montpellier, France.
  94. Asim Zia\*, Stuart Kauffman (2018) The Limits of Predictability in Predefining Phase Spaces of Dynamic Social Ecological Systems: "Command and Control" Versus "Complex Systems" Based Policy Design Approaches to Conserve Tropical Forests, Conference on Complexity and Policy Studies, April 18-20, Washington DC.
  93. Christopher Koliba\*, Asim Zia, Scott Merrill (2018) Using Agent-Based Models to Prototype Governance and Policy Designs, XXII IRSPM Annual Conference 2018, April 11-13, Edinburgh UK
  92. Asim Zia, Christopher Koliba\* (2018) Designing Intergovernmental Networks and Hierarchies: Harnessing Agent Based Models as Governance and Policy Analytics Platforms, XXII IRSPM Annual Conference 2018, April 11-13, Edinburgh UK.
  91. Christopher Koliba\*, Scott Merrill, Asim Zia (2018) Influence of Risk Communication on Livestock Biosecurity Protocol Adoption Across Two Gaming Platforms: Implications for Tactical and Operational Decision Making, XXII IRSPM Annual Conference 2018, April 11-13, Edinburgh UK.

90. Christopher Koliba\*, Patrick Bitterman, Asim Zia (2018) Overcoming Fragmented Governance in Complex Water Systems. Annual Meeting of American Society for Public Administration (ASPA), March 9-13, Denver CO.
89. Steve Scheinert\*, Christopher Koliba, Asim Zia (2018) Measuring Democratic, Market and Administrative Accountability Mechanisms in Complex Watershed Governance Networks. Annual Meeting of American Society for Public Administration (ASPA), March 9-13, Denver CO.
88. Asim Zia\*, Michael Widener, Sara Metcalf and Chris Koliba. 2017. Modeling Voting Decisions in Governance Networks for Agents with Heterogeneous Mental Models and Alternate Network Structures. The Computational Social Science Society of the Americas' annual CSS 2017 conference. Santa Fe, NM. October 20-22, 2017.
87. Asim Zia\*, Scott Merrill, Chris Koliba, Susan Moegenberg, Serge Wiltshire, Eric Clark, Gabriella Buccini, Julie Smith. 2017. Are Human Agents Myopic or Far-Sighted Under Differential Conditions of Risk and Ambiguity? A Bayesian Network Model of Biosecurity State Transitions in a Sequential Decision Experiment. Conference on Complex Systems. Cancun, Mexico. September 17-22, 2017.
86. Asim Zia\*, Andrew W. Schroth, Patrick J. Clemins, Christopher Koliba, Arne Bomblied, Brian Beckage. 2017. Understanding Lags, Thresholds and Cross Scale Dynamics in Social Ecological Systems: Cascading Impacts of Climate and Land Use Adaptation on Missisquoi Bay. Conference on Complex Systems. Cancun, Mexico. September 17-22, 2017.
85. Christopher Koliba\*, Asim Zia and Scott Merrill. 2017. Utilization of Computer Simulation and Serious Games to Inform Livestock Biosecurity Policy and Governance. *Conference on Complex Systems*. Cancun, Mexico. September 17-22, 2017.
84. Zia\*, A., Koliba, C. 2017. Agent based modeling of intergovernmental networks: harnessing experimental simulations for transportation policy informatics. 35<sup>th</sup> International Conference of the System Dynamics Society, Cambridge MA. July 16-20, 2017.
83. Shang Wu\*, Asim Zia, Mengyuan Ren, Kent Messer. 2017. Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.
82. Bucini\* G., Wiltshire S., Merrill S.C., Zia A., Koliba J.C., Clark E., Trinity L., Moegenburg S., Smith M.J. 2017. Where will the Infection Spread? Effects of Movement Networks and Human Risk Attitude on Spread of Swine Disease. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.
81. Shang Wu\*, Asim Zia, Mengyuan Ren, Kent Messer. 2017. Simulating Heterogeneous Farmer Behaviors under Different Policy Schemes: Integrating Economic Experiments and Agent-Based Modeling. *The conference on Complexity-Based Analytics and Policies for Social Good*, Washington DC. April 12-14, 2017.
80. Zia\*, A., Koliba, C. 2017. Agent based modeling of intergovernmental networks: harnessing experimental simulations for transportation policy informatics. The conference on Complexity-Based Analytics and Policies for Social Good, Washington DC. April 12-14, 2017.
79. Zia\*, A. 2017. Agent based modeling of alternative policy mixes: experimental simulations of farmer nutrient management adoption behaviors. 78<sup>th</sup> annual meeting of American Society of Public Administration, Atlanta GA. March 17-22, 2017.
78. Scheinert\*, S., Koliba, C., Zia, A. 2017. Measuring democratic, market and administrative accountability mechanisms in complex watershed governance networks. 78<sup>th</sup> annual meeting of American Society of Public Administration, Atlanta GA. March 17-22, 2017
77. Zia\*, A., Y. Tsai, S. Turnbull, C. Koliba. 2016. Multi-scale modeling of land-use land cover change in social ecological systems: an agent based model of Missisquoi watershed in the Lake Champlain basin, 2000-2100. *7<sup>th</sup> Annual Meeting of Earth System Governance*. Nairobi, Kenya. December 7-9, 2016.
76. Zia\*, A. 2016. How equitable are CO2 emission entitlements in the Paris Agreement? Evaluation of "Intended Nationally Determined Contributions" versus CO2 per capita for a 2C Global Carbon Budget and Global Carbon Trading Mechanism. *7<sup>th</sup> Annual Meeting of Earth System Governance*. Nairobi, Kenya. December 7-9, 2016.
75. Zia\*, A. 2016. Machine learning how human risk perceptions shape behavior: comparing a diversity of approaches to predict how climate risk perceptions lead to green behaviors for the US population. *4<sup>th</sup> Annual Bayesia Lab Conference*. Nashville TN. September 28-29, 2016.

74. Zia\*, A., C. Koliba. 2016. Institutional analytics: agent based modeling of intergovernmental dynamics and control. *SwarmFest2016: 20<sup>th</sup> Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
73. Zia\*, Asim, Yushiou Tsai, Scott Turnbull, Shanshan Ding, Haoran Miao, Christopher Koliba, Scott Merrill, Kent Messer, Jordan Suter, Jacob Fooks, Todd Guilfoos, Simona Trandafir, Emi Uchida (2016) Simulating the effects of alternate control strategies on heterogeneous farmer behaviors and water quality outcomes: an agent based modeling application in Mississquoi watershed of Lake Champlain Basin. *SwarmFest2016: 20<sup>th</sup> Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
72. Y. Tsai, S. Turnbull and A. Zia, "Farmers' Decisions for Adopting Best Management Practices: An Application of A Spatially Explicit Agent-based Model," *SwarmFest2016: 20<sup>th</sup> Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
71. Zia\*, A., C. Koliba, A. Bomblies, A. Schroth, B. Beckage 2016. Adaptive management of critical transitions in social ecological systems: governing alternate stable states in Lake Champlain basin. *ISEE 2016: Transforming the Economy: Sustaining Food, Water, Energy and Justice*. Washington DC. June 26-29, 2016.
70. Zia\*, A., A. Bomblies, C. Koliba, A. Betts, B. Beckage, P. Clemins, Y. Tsai. 2016. Spatial Scale and political ideology confound climate risk communication. *ISEE 2016: Transforming the Economy: Sustaining Food, Water, Energy and Justice*. Washington DC. June 26-29, 2016.
69. Tsai\*, Y., I. N. Mohammed, S. Turnbull, A. Zia and A. Bomblies "Impacts of Land Use on Flows in Missisquoi Watershed: An Integration of A Land Use Agent-based Model and RHESys," *EWRI World Environmental & Water Resources Congress*, West Palm Beach, Florida, May 22-26, 2016.
68. Koliba\*, C., S. Scheinert, and A. Zia. 2016. Toward a New Economics of Networks: Using Institutional Network Analysis to Study Principal-Agent and Peer-to-Peer Ties. *American Society for Public Administration Annual Conference*. Seattle, WA.
67. Scheinert, S., Koliba\*, C., Zia, A., Tsai, Y., and Coleman, S. 2015. Bridging the Meso and Micro Level Scales of Social Complexity within a Socio-Ecological System: Modeling the Relationship Between Governance Networks and Land Use/Management Decisions in the Northeastern Segment of the Lake Champlain Basin. *Conference on Complex Systems (CCS'15)*, Tempeh AZ. September 28-October 2, 2015.
66. Zia\*, A., C. Koliba (2015) Institutional Analytics: How Multi-Level Institutional Mechanisms Generate Basins of Attraction in Infrastructure Investments? *Conference on Complex Systems (CCS'15)*, Tempeh AZ. September 28-October 2, 2015.
65. Zia, Asim, Yushiou Tsai, Christopher Koliba, Scott Turnbull (2015) Experimental Simulations of Land-Use Land Cover Change (LULCC) under Heterogeneous Policy Regimes: An Agent Based Model of Rural-Urban-Forest Interface in the Missisquoi Watershed of Lake Champlain Basin, 2000-2050. *Conference on Complex Systems (CCS'15)*, Tempeh AZ. September 28-October 2, 2015.
64. Zia, Asim, Nina Fefferman, Peter Howe, Sara Metcalf, Travis Franck, Katherine Lacasse, Forrest Hoffman, Jonathan Winter, Adam Schlosser, Brian Beckage, Louis Gross (2015) Modeling the Effects of Heterogeneous Climate Change Risk Perceptions on Energy Consumption and Green House Gas (GHG) Mitigation Behaviors: An Agent Based Model of US Population, 2010-2030. *SwarmFest2015: 19<sup>th</sup> Annual Meeting on Agent-Based Modeling & Simulation*. Columbia, SC. July 10-12, 2015.
63. Zia, Asim, Yushiou Tsai, Scott Turnbull, Christopher Koliba (2015) Simulating Land-Use Land Cover Change (LULCC) at Watershed Scales under Heterogeneous Policy Designs: An Agent Based Model of Missisquoi Watershed in the Lake Champlain Basin, 2000-2040. *SwarmFest2015: 19<sup>th</sup> Annual Meeting on Agent-Based Modeling & Simulation*. Columbia, SC. July 10-12, 2015.
62. Zia, Asim, Andrew Schroth, Yaoyang Xu, Peter Isles, Ahmed Hamed, Yushiou Tsai, Ibrahim Mohammed, Arne Bomblies (2015) An Autoregressive Bayesian Network to Assess Climate & Nutrient Variability Impacts on Water Quality. *International Association of Great Lakes Research (IAGLR) Annual Conference*, Burlington VT. May 25-29, 2015.
61. Tsai\*, Y., I.N. Mohammed, S. Turnbull, A. Zia and A. Bomblies (2015) Impacts of Zoning Policies on Flood and Water Quality: An Integrated Assessment Modelling Application. *EWRI World Environmental & Water Resources Congress, Austin, Texas*, May 17-21, 2015.
60. Scheinert, S., Zia, A., and Koliba, C. (2015) Examining the Links between the Empirical and the Computational: Building a Computational Agent-Based Model From an Empirical Network Model.

- The American Society for Public Administration Annual Conference, Chicago, IL. March 2015.*
59. Zia, A. (2014) Governance Network Analytics: Simulating the Emergence of Voting Patterns under Alternative Network Structures and Mental Models. *110<sup>th</sup> annual meeting of the American Political Science Association (APSA)*, Washington DC (August 28-31, 2014).
  58. Zia\*, A., Koliba, C., Bomblies, A., Schroth, A., Beckage, B. (2014) Adaptive Management of Critical Transitions in Social Ecological Systems: Governing Alternate Stable States in Lake Champlain Basin. *110<sup>th</sup> annual meeting of the American Political Science Association (APSA)*, Washington DC (August 28-31, 2014).
  57. Zia\*, A., Koliba, C., Bomblies, A., Schroth, A., Beckage, B. (2014) Adaptive Co-Management of "Tipping Points" in Social Ecological Systems: Governing Alternate Stable States in Lake Champlain Basin. *2014 Norwich Conference on Earth System Governance: Access and Allocation in the Anthropocene*, Norwich, UK (July 1-3, 2014)
  56. Tsai\*, Y., I. N. Mohammed, S. Turnbull, A. Zia, and A. Bomblies, "Interactions of landowners' land use decisions with flood and water quality," *American Geophysical Union Fall Meeting*, San Francisco, CA, (December 2014)
  55. Mohammed\*, I. N., Y. Tsai, S. Turnbull, A. Bomblies and A. Zia, "Coupled dynamics to assess human impact on watershed hydrology," *American Geophysical Union Fall Meeting*, San Francisco, CA, (December 2014)
  54. Tsai\*, Y., I.N. Mohammed, A. Zia and S. Turnbull. (2014) Impacts of Landowners' Land-use Decisions on Flood and Water Quality: An Integration of Land-use Agent-based Model and RHESSys. *EWRI World Environmental & Water Resources Congress*, Portland, Oregon, (June 1-5, 2014)
  53. Zia\*, A., Schroth, A., Xu, Y., Isles, P. (2014) Quantifying Uncertainty in Modeling the Impacts of Climate Change on Water Quality in Freshwater Lakes: A Bayesian Network Model of Missisquoi Bay. *38<sup>th</sup> Annual NEAEB Conference*, Burlington VT (Mar 26-28, 2014)
  52. Turner, D., Koliba\*, C., Wiltshire, S., Zia, A., Campbell, E., Scheinert, S., (2014) Ascertaining the Value Proposition of Networks: An Institutional Network Analysis of the Farm to Plate Network. *75<sup>th</sup> annual meeting of the American Society for Public Administration*. Washington DC, March 2014.
  51. Clement, C., Fernandez, L., Foco, A., Keir, L., Koliba\*, C., Pierce, V., Prasad, P., Steele, C., Tursi, A., Zia, A. (2014) The Institutional Design Features of Open Government Platforms: A Comparative Analysis of Five Federal Open Government Initiatives. *75<sup>th</sup> annual meeting of the American Society for Public Administration*. Washington DC, March 2014.
  50. Zia\*, A. (2014) Adaptive Governance of Alternate Stable States in Social Ecological Systems: Simulating the Impacts of Alternative Policy Mixes on Farmer Behaviors. *International Conference on Policy Mixes in Environmental and Conservation Policies*, Leipzig, Germany (Feb 25-27, 2014)
  49. Steve Scheinert\*, Chris Koliba, Asim Zia (2013) Seeking Simple Models of Highly Nuanced Systems: Building a Model of Water Quality Management. *Annual Conference of the Association of Public Policy Analysis and Management (APPAM)*, Washington, DC, (November 2013)
  48. Zia\*, A. (2013) Meta-Decision Modeling of Wicked Landscape Design Problems: Resolving Conservation Versus Development Value Conflicts in Tanzanian, Vietnamese and Peruvian Social Ecological Systems. *Symposium on "Wicked Problems in Socio-Ecological Systems"*, University of California, Berkeley, October 2013
  47. Zia\*, A., C. Koliba (2013) Institutional Analytics: How Multi-Level Institutional Mechanisms Generate Basins of Attraction in Infrastructure Investments? *Annual meeting of the American Political Science Association (APSA)*, Chicago IL, August-September 2013
  46. Zia\*, A., C. Koliba (2013) Adaptive Management of Critical Transitions in the Social Ecological Systems: Governing Alternate Stable States in Multi-Jurisdictional Lake Champlain Basin. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT) II*. La Verne, CA, June 2013
  45. Koliba\*, C., A. Zia (2013) The Resiliency Challenge for Social Ecological Systems: Overcoming Institutional Silos Through Mediated Modeling. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT) II*. La Verne, CA, June 2013

44. Steve Scheinert\*, Adam Reynolds, Christopher Koliba, Asim Zia (2013) Tracking Emergence in an Environmental Governance Network: Dynamic Network Analysis of Lake Champlain Basin Program's Opportunities for Action Plans." *Sunbelt Conference 33*, Hamburg, Germany, May 2013
43. Koliba\*, C., A. Zia (2013) The Role of Governance Informatics in Promoting Accountability and Performance: Examples from Watershed Management and Transportation Planning. *International Research Society for Public Management (IRSPM) Annual Conference*. Prague, Czech Republic, April 2013
42. Tsai\*, Y., A. Zia, C. Koliba, J. Guilbert, G. Bucini, B. Beckage (2013) Impacts of Land Managers' Decisions on Landuse Transition Within Missisquoi Watershed Vermont: An Application of Agent-based Modeling System. *IEEE International Systems Conference*. Orlando FL, April 2013
41. Zia\*, A., C. Koliba (2013) Institutional Analytics: How Multi-Level Institutional Mechanisms Generate Basins of Attraction in Infrastructure Investments? International Research Society for Public Management (IRSPM) Annual Conference. Prague, Czech Republic, April 2013
40. Zia\*, A. (2013) Global Democracy-Deficit and Accountable Climate Governance: Do We Need an Elected Global Parliament? *American Society for Public Administration annual meeting*. New Orleans LA, March 2013.
39. Koliba\*, C., N. Brune, M. Berman\*, A. Zia (2013) Building and Governing the Smart Grid: Lessons from a Statewide Public-Private Partnership. *American Society for Public Administration annual meeting*. New Orleans LA, March 2013.
38. Zia\*, A., C. Koliba (2013) Agent-Based Modeling of Intergovernmental Networks: A Complex Systems Approach to Analyze Transportation Policy Implementation Processes, January 2013. *Earth System Governance Annual Meeting*. United Nations University, Tokyo, Japan, January 2013.
37. Zia\*, A., Paul Hirsch, Alexander N. Songorwa, David R. Mutekanga, Sheila O'Connor, Thomas McShane, Pete Brosius, Bryan Norton (2012) Cross-Scale Value Trade-Offs in Managing Social-Ecological Systems: The Politics of Scale in Ruaha National Park, Tanzania. *Earth System Governance annual meeting*. Lund University, Lund, Sweden, April 2012.
36. Zia\*, A., Koliba, C. (2012) Experimental Simulations of Decision Making in Governance Networks: Theoretical and Methodological Implications of Pattern-Oriented Simulation Models. *American Society for Public Administration annual meeting*. Las Vegas NV, March 2012.
35. Zia\*, A., Koliba, C. (2011) Simulating Transportation Governance Networks and their Alternate Institutional Designs. *Association for Public Policy Analysis and Management annual meeting*. Washington DC, November 2011.
34. Koliba\*, C., Zia, A. (2011) Governance Informatics: Managing the Performance of Inter-Organizational Governance Networks. *Association for Public Policy Analysis and Management annual meeting*. Washington DC, November 2011.
33. Koliba\*, C., Zia, A., Tucker, M., Novak, D. (2011) Fostering Innovation in an Intergovernmental Transportation Planning Governance Network through Multi-Criteria Analysis. *The American Political Science Association annual meeting*. Seattle, Washington. September 2011
32. Koliba\*, C., Zia, A. (2011) Theory Testing Using Complex Systems Modeling in Public Administration and Policy Studies: Challenges and Opportunities for a Meta-Theoretical Research Program. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT)*. Rotterdam, The Netherlands, June 2011
31. Zia, A., Koliba\*, C., Metcalf, S., Widener, M. (2011) Agent Based Models of Cross-Jurisdictional Governance Networks: Simulating the Emergence of Project Prioritization Patterns Under Alternate Policy Theoretical Frameworks and Network Structures. *The American Society for Public Administration, Section on Complexity and Network Studies (SCNS), and Erasmus University Rotterdam, research group Governance of Complex Systems (GOCS) Joint Conference on "Challenges of Making Public Administration and Complexity Theory Work" (COMPACT)*. Rotterdam, The Netherlands, June 2011.
30. Zia\*, A., Koliba, C., Metcalf, S., Widener, M. (2011) Agent Based Models of Cross-Jurisdictional Governance Networks: Simulating the Emergence of Project Prioritization Patterns Under Alternate Policy Theoretical Frameworks and Network Structures. *11th Biannual Public Management Research Association Conference, Syracuse NY, June 2011*.



29. Zia, A., Koliba, C., Campbell, E., Lee\*, B. H. Y, Meek, J., Colangelo, D. (2011) The Utilization and Valuation of Performance Measures for Metropolitan Planning Organizations: Understanding the Effects of Contextual Complexity and Collaborative Capacity from a National-Level Survey. *11th Biannual Public Management Research Association Conference, Syracuse NY, June 2011.*
28. Koliba, C., Zia\*, A. (2011) Using Agent-Based Models to Ascertain Accountability Systems within Complex Watershed Governance Networks. *Colorado Conference on Earth System Governance: "Crossing Boundaries and Building Bridges"*, to be held at Colorado State University, 17-20 May 2011.
27. Zia\*, A. (2011) Post-Kyoto Climate Governance and REDD Policy Design: Confronting the Politics of Scale and Knowledge in Managing Trade-Offs. *Colorado Conference on Earth System Governance: "Crossing Boundaries and Building Bridges"*, to be held at Colorado State University, 17-20 May 2011
26. Zia\*, A. (2011) Social Traps in Managing Environmental Risks: Understanding the Effects of Scale and Ideology in Climate Change Risk Perceptions. *Annual Meeting of the American Society for Public Administration, Baltimore, Maryland, March 2011*
25. Zia\*, A., Koliba, C., Lee, B. H. Y. (2011) Explaining the Emergence of Project Prioritization Patterns in Governance Networks: Agent Based Modeling of MPO Transportation Implementation Plans. *Annual Meeting of the American Society for Public Administration, Baltimore, Maryland, March 2011*
24. Lee\*, B. H. Y, Zia, A., Koliba, C. (2010) Metropolitan Planning Organizations and Travel Demand Modeling: A National Examination of Transportation Planning Activities and Challenges. *North American Meeting of the Regional Science Association International (RSAI) sponsored by the North American Regional Science Association (NARSC). Denver CO, November 2010.*
23. Zia\*, A., Metcalf, S., Norton, B. G., Hirsch, P., Hannon, B. (2010) An Ambit-Base for Sense of Place: Where We (C)are? *American Collegiate Schools of Planning (ACSP) Annual Conference, Minneapolis MT, October 2010.*
22. Zia\*, A., and Glantz, M. (2010) Designating "Risk Zones": Comparing Risk Governance in USA and South Asia. *Workshop on "Disaster Resilience: Comparative Perspectives,"* organized by International Comparative Policy Analysis Forum (ICPA-Forum), University of Pittsburgh, PA, April 2010.
21. Zia\*, A., Metcalf, S., and Koliba, C. (2010) Management of Complex Governance Networks: Opportunities and Challenges for Agent Based Models of Policy Analysis. *Annual Meeting of the American Society for Public Administration, San Jose CA, April 2010.*
20. Zia\*, A. (2009) Comparative Analysis of Post-Kyoto Climate Change Policy Design: Ethical and Statistical Dilemmas in the "Fair" Allocation of Green House Gas Emission Allowances Across the Nation States. *31st Annual Research Conference of Association for Public Policy Analysis and Management, Washington DC, November 2009.*
19. Zia\*, A. and Koliba, C. (2009) Climate Change Governance and Accountability: Dilemmas of Performance Measurement in Complex Governance Networks. Presented in 5<sup>th</sup> Trans-Atlantic Dialogue. George Washington University. Washington DC., June 2009.
18. Koliba\*, C., Meek, J. and Zia, A. (2009) Gordian Knot or Meta-Theory? Conceptual Dilemmas in Governance Network Analysis. Presented in 5<sup>th</sup> Trans-Atlantic Dialogue. George Washington University. Washington DC.
17. Zia\*, A. (2009) Post-Kyoto Climate Change Governance Regime: Analyzing Ethical and Statistical Dilemmas in the "Fair" Allocation of Green House Gas Emission Allowances. *Annual meeting of US Society for Ecological Economics, Washington DC, May-June 2009, June 2009*
16. Zia\*, A. (2009) Implementation Dilemmas of International Climate Policy: Revisiting the Problem of "Fair" Allocation of Green House Gas Emission Allowances in a Post-Kyoto Governance Regime. *Annual Meeting of the American Society for Public Administration, Miami FL, March 2009.*
15. Zia\*, A. (2008) Barriers and Bridges to Photovoltaic (PV) Electricity Generation: A Survey of Homeowners in California's Bay Area. *Annual Meeting of the Association of American Geographers, Boston MA, April 2008.*
14. Todd\*, A.M., Zia\*, A. (2007) Integrative Learning in General Education: An Interdisciplinary Approach to the Teaching and Learning of Global Climate Change. *Association of American Colleges and Universities' Conference on Civic Learning at the Intersections: U.S. Diversity, Global Education, and Democracy's Unfinished Work, Denver CO, October 2007.*

13. Zia\*, A., and Arenstein\*, W. (2007) An Evaluation Framework for Indirect Source Review (ISR) Programs: Current Controversies and Future Prospects. *100<sup>th</sup> Annual Conference and Exhibition of Air and Waste Management Association*, Pittsburgh PA, June 2007.
12. Zia\*, A. (2007) Land Use Adaptation to Climate Change: Forecasting the Economic Impact of Hurricanes in the Atlantic and Gulf Coastal Regions of the U.S. *Annual Meeting of the Association of American Geographers*, San Francisco CA, April 2007
11. Zia\*, A. (2006) Policy Response to Natural Disasters: A Comparative Study of North American and South Asian "Zoning" Experiences. *28<sup>th</sup> Annual Research Conference of the Association for Public Policy Analysis and Management*, Madison WI, November 2006
10. Zia\*, A., M. Glantz (2005) The Components of a Climate and Society Affairs Program: A South Asian Context. *International Workshop on Impacts of Weather and Climate on Society Affairs*, COMSATS Institute of Information Technology, Islamabad, Pakistan, November 2005
9. Zia\*, A. (2005) Adaptive Policy Mechanisms: Managing Climate Change Risk from Natural Hazards in South Asia. *International Workshop on Impacts of Weather and Climate on Society Affairs*, COMSATS Institute of Information Technology, Islamabad, Pakistan, November 2005
8. Zia\*, A. (2005) Wicked Environmental Design Problems and Meta-Decision Models: The Cases of Vehicular Emissions, Energy Source Mixes and Green-House Gas Emissions. *Association of Collegiate Schools of Planning (ACSP) Annual Conference*, Kansas City MO, October 2005
7. Lazo\*, J., A. Zia, R. Morss (2005) Expert Mental Modeling of the Weather Forecast System. *21st Conference on Weather Analysis and Forecasting/ 17th Conference on Numerical Weather Prediction*, Washington DC, August 2005
6. Zia, A., R. Morss\*, and J. Lazo (2005) Socioeconomic Value of (Quantitative) Precipitation Forecasts: A Synthesis. *21st Conference on Weather Analysis and Forecasting/ 17th Conference on Numerical Weather Prediction*, Washington DC, August 2005
5. Zia\*, A. (2005) An Emission-Inventory Based Methodology to Evaluate Vehicle Inspection and Maintenance Programs: A Case-Study of the Atlanta Airshed 1997-2001. *The Air & Waste Management Association's 98th Annual Conference & Exhibition*, Minneapolis MN, June 2005
4. Zia\*, A., R. Morss, and J. Lazo (2005) Value of Quantitative Precipitation Forecast Information: A Methodological Review. *The 25<sup>th</sup> International Symposium of Forecasting*, San Antonio TX, June 2005
3. Zia, A., R. Morss, and J. Lazo\* (2004) Societal Value of Improved Quantitative Precipitation Forecasts: A Synthesis. *First THORPEX/WMO International Science Symposium*, Montréal, Canada, December 2004
2. Zia\*, A. and B. G. Norton (2003) Using Multiple Decision Rules to Evaluate Vehicle Inspection and Maintenance Program in the Atlanta Airshed: Towards Meta-decision Models in Environmental Management. *Third Joint Congress of the Association of Collegiate Schools of Planning (ACSP) and the Association of European Schools of Planning (AESOP)*, Leuven, Belgium, July 2003
1. Zia\*, A. and C. J. Waddick\* (2001) Impact of "Standard" Environmental Management Systems on Technology Forecasting. *The 21st International Symposium on Forecasting*, Pine Mountain, GA, June 2001

• **Posters**

21. Bano\*, R., Zia, A., Clemins, P. J., Oikonomou, P. D., Morales, M., Schroth, A. W., Beckage, N. B., Turnbull, S., & Hannoun, K. (2025). "Assessing the Seasonal Forecastability of Harmful Algal Blooms in Lake Champlain," HEPEX (Hydrologic Ensemble Prediction Experiment) 2025 Workshop. Tuscaloosa, AL, March 25-27. <https://hepex.org.au/hepex-2025-workshop-what-happened-in-tuscaloosa/>
20. Oikonomou\*, P. D., Zia, A., Clemins, P. J., Adil, M., Schroth, A. W., Hannoun, K., Beckage, N. B., Turnbull, S., & Rizzo, D. M. (2025). "Ensemble-Based Forecasting of cyanoHABs: Challenges and Opportunities Using an Integrated Early Warning System in Northeastern Lake Champlain," HEPEX (Hydrologic Ensemble Prediction Experiment) 2025 Workshop. Tuscaloosa, AL, March 25-27. <https://hepex.org.au/hepex-2025-workshop-what-happened-in-tuscaloosa/>
19. Adil\*, M., Oikonomou, P. D., Clemins, P. J., Wshah, S., & Zia, A. (2024). "GeoS2Py: Simplifying Advanced Sentinel-2 Data Access [Abstract GC53A-0347]," American Geophysical Union Fall

Meeting (AGU). Washington, DC, December 9-13.

<https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1683613>

18. Adil\*, M., Oikonomou, P. D., Rizzo, D. M., Clemens, P. J., Schroth, A. W., Isles, P. D. F., Wshah, S., & Zia, A. (2024). "AI Framework to Model Chlorophyll Concentration Using Sentinel 2 Data in Inland Waters Across CONUS [Abstract H21K-0794]." American Geophysical Union Fall Meeting (AGU). Washington, DC, December 9-13. <https://agu.confex.com/agu/agu24/meetingapp.cgi/Paper/1567365>
17. Zia\*, A., Oikonomou, P., Clemens, P. J., Schroth, A. (2024). Co-producing hydroclimatic forecasts and evaluating their impact on nutrient budgeting and abatement costs for securing clean water in transboundary Missisquoi bay of Lake Champlain, 2000-2050. American Geophysical Union Fall Meeting 2024 (AGU24), Washington DC. December 9–13, 2024.
16. Asim Zia\*, Patrick J. Clemens, Panagiotis Oikonomou, Scott Turnbull, Andrew Schroth, Donna Rizzo (2022) Information Theoretic Approaches to Characterize Uncertainty in Computational Models of Coupled Human and Natural Systems: Insights from an Integrated Model Predicting Water Quality in Lake Champlain under Alternate Hydro-Climatic, Land Use, And Nutrient Management Conditions. American Geophysical Union (AGU) annual conference, Chicago IL, USA. December 2022
15. Saeed Akhtar Khan, Panagiotis D. Oikonomou , Asim Zia\* (2022) Automated detection of glacier cover changes in the Upper Indus Basin of northern Pakistan. American Geophysical Union (AGU) annual conference, Chicago IL, USA. December 2022
14. A. Zia, A. Brassart, C. D. Mullins, S. M. Thomas\*, C. A. Jones (2019) Personalized and unexpected rewards using a text-only Artificial Intelligence (AI) platform can increase patient engagement and physical activity: Results from the trUStr pilot measuring intelligent patient-reported outcomes (iPROs). *AMCP NEXUS 2019*, National Harbor MD. October 29-Nov 1, 2019.
13. Elizabeth M. B. Doran\*, Asim Zia, Donna Rizzo, Yushiou Tsai, Scott Turnbull, Christopher Koliba (2018) A phase space approach to understanding the efficacy of agricultural BMP adoption on water quality under a range of socio-ecological scenarios using a watershed scale, feed-forward integrated assessment model. *American Geophysical Union (AGU) 100<sup>th</sup> annual meeting*. Washington DC. December 10-14, 2018
12. Jory S Hecht\*, Asim Zia, Donna M Rizzo, Andrew Schroth, Matthew C. H. Vaughan, Kristen Underwood (2018) The systematic underestimation of nutrient load variability in coupled streamflow-water quality models: effects on lake cyanobacteria bloom simulations. *American Geophysical Union (AGU) 100<sup>th</sup> annual meeting*. Washington DC. December 10-14, 2018
11. Jory S. Hecht\*, Asim Zia, Brian Beckage, Jonathan Winter, Patrick Clemens, Andrew Schroth, Donna Rizzo, Arne Bomblies (2017) The Sensitivity of Lake Algal Blooms to Changes in Climate Variability and Extremes. *Annual Meeting of American Geophysical Union, New Orleans, 11-15 December, 2017*.
10. Zia\*, A., C. Koliba, M. Tucker. 2017. Intergovernmental dynamics of transportation planning: Why some towns attract more federal funding than others? 35<sup>th</sup> International Conference of the System Dynamics Society, Cambridge MA. July 16-20, 2017
9. Y. Tsai\*, S. Turnbull and A. Zia. 2017. The interactive effects of land use patterns, socio-economic status, and social psychological factors on the adoption of best management practices: an application of a land use agent-based Model. *NSF Funded Workshop on Agent Based Modeling*, San Diego, California, April 20-April 22, 2017.
8. Zia\*, A., A. Schroth, Y. Xu, P. Isles. 2017. Combined temperature and precipitation variability may increase the frequency of harmful algal blooms in Lake Champlain, 1992-2100. *AGU Chapman Conference on Extreme Climate Event Impacts on Aquatic Biogeochemical Cycles and Fluxes*, San Juan PR. January 22-27, 2017.
7. Scheinert\*, S., Koliba, C., Zia, A., Tsai, Y., and Coleman, S. 2015. Bridging the Meso and Micro Level Scales of Social Complexity within a Socio-Ecological System: Modeling the Relationship Between Governance Networks and Land Use/Management Decisions in the Northeastern Segment of the Lake Champlain Basin. *NSF EPSCoR National Conference*, Portsmouth, NH. November 1-3, 2015.
6. Zia\*, A., C. Koliba (2013) Agent-Based Modeling of Intergovernmental Decision Making: How Institutional Rules Generate Basins of Attraction in Funding Transportation Projects. *Transportation Research Board 92<sup>nd</sup> Annual Meeting*. Washington DC, January 2013. Paper No. 13-2153.

5. Zia, A., Koliba, C., De Pinto, T. (2012) Multi-Criteria Evaluation of Metropolitan Transportation Planning Scenarios: Assessing Trade-Offs Between Business-As-Usual and Alternate Sustainable Community Designs. *Transportation Research Board 2012 Annual Meeting*, Washington DC, January 2012. Paper no. 12-2461.
4. Zia, A., Koliba, C., Campbell, E., Lee, B. H. Y, Meek, J., Colangelo, D. (2011) Prioritization of Performance Measures for MPOs: Understanding the Effects of Contextual Complexity and Collaborative Capacity from a National-Level Survey. *Transportation Research Board 2011 Annual Meeting*, Washington DC, January 2011. Paper no. 11-2913.
3. Zia, A. (2006) An Emission-Inventory Based Methodology to Evaluate Vehicle Inspection and Maintenance Programs: A Case-Study of the Atlanta Airshed 1997-2001. *Transportation Research Board 2006 Annual Meeting*, Washington DC, USA, January 2006
2. Zia, A. (2005) Cooperative and Non-Cooperative Decision Behaviors in Response to the Inspection and Maintenance Program in the Atlanta Airshed, 1997-2001. *The 27th annual research conference of the Association for Public Policy Analysis and Management (APPAM)*, Washington DC, USA, November 2005
1. Zia, A. (2003) Cooperative and Non-Cooperative Decision Behavioral Strategies: an Evaluation of the Impact of High-emitting Vehicle Owners on Vehicular Emissions in the Atlanta Airshed. *The 25th annual research conference of the Association for Public Policy Analysis and Management (APPAM)*, Washington DC, USA, November 2003

#### **Invited Presentations (Selected)**

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|---------|--|
| 04/2025 | The intersection of Tech and Climate Action: Harnessing Digital Transition to Drive Sustainability. Practitioners-Academics Dialogue. IRSPM Conference, Bologna, Italy   |
| 03/2025 | Draft of the UNCCRD language document highlighting innovative public policy and inclusive, community-centric governance. UNCCRD Deltas Summit 2025. Bangkok, Thailand  |
| 10/2024 | Highlands to Oceans (H2O): Testing AI augmented Multi-Hazard Early Warning Early Action Lead Systems in Transboundary River Basins, Global Center for Climate Change and Transboundary Waters. University of Michigan, Ann Arbor USA |
| 10/2024 | Forecasting the incidence and duration of harmful algal blooms (HABS) at daily, weekly and seasonal scales. CIROH Annual Science Meeting, OWP & AWI, Alabama.  |
| 09/2024 | Co-designing Trustworthy AI Technologies for Climate Smart Agriculture and Forestry. USDA ARS.   |
| 09/2024 | Digital technologies for environmental peacebuilding. PeaceCon 2024, Washington DC.  |
| 05/2024 | Enhancing social and coupled natural and human science in CIROH training, CIROH Developers Conference, Salt Lake City Utah   |
| 12/2023 | Integrative Highlands to Oceans (H2O) Action: Multi-level Governance & Policy Solutions for a UN Convention on Conserving River Deltas (UN CCRD). UN Climate Conference, COP28, Dubai, UAE   |
| 12/2023 | Data Governance to Modernize Hydro-Met Services and Impact Advisories in Pakistan. UN Climate Conference, COP28, Dubai, UAE  |
| 07/2023 | Stimulating team science for use-inspired climate adaptation, US-AID funded HESSA project workshop on "Climate Resilience Research Coordination Network", Islamabad, Pakistan  |
| 07/2023 | Climate change challenges and opportunities for action in Pakistan, Islamabad Club, Islamabad, Pakistan  |
| 03/2023 | "Highlands to Oceans (H2O): Piloting AI augmented Multi-hazard Early-warning Early Action Lead Systems (AI-MEALS) in Transboundary River Basins," UN Water Conference 2023, UN Headquarters, New York                                |
| 12/2022 | "Re-Envisioning Multi-Level Governance of Higher Education for a Climate Resilient Pakistan," International Summit on Higher Education and Workforce Development in 21 <sup>st</sup> Century, Islamabad, Pakistan                    |
| 12/2022 | "Diversifying HEI Funding Portfolios: Strategic, Tactical and Operational Considerations" International Summit on Higher Education and Workforce Development in 21 <sup>st</sup> Century, Islamabad, Pakistan                        |

- 11/2022 "Highlands to Oceans (H2O): Piloting AI augmented Hydro-climatic Early Warning Early Action Lead Systems in Transboundary River Basins," UN Climate Conference, COP27, Sharm El Sheikh, Egypt
- 10/2022 "Highlands to Oceans (H2O): Anticipatory Governance of Hydroclimatic Regime Shifts in the Transboundary River Basins," UN/WMO/Egyptian Presidency Workshop on Hydrometeorological Early Warning Early Action Systems, Cairo, Egypt.
- 5/2022 "Highlands to Oceans (H2O): Anticipatory Governance of Hydroclimatic Regime Shifts in the Transboundary River Basins," Cells to Society Seminar, CALS, UVM.
- 5/2022 "Highlands to Oceans (H2O): Anticipatory Governance of Hydroclimatic Regime Shifts in the Transboundary River Basins," Fulbright Seminar at Tel Aviv University, Tel Aviv, Israel
- 1/2022 "Securing clean water in transboundary river basins through science and environmental diplomacy," Fulbright Seminar at Escuela Superior Politecnica del Litoral (ESPOL), Ecuador
- 1/2022 "Convergent modeling and policy approaches for mitigation and adaptation to global climate change," delivered to Ministry of Environment, Water and Ecological Transition, Ecuador
- 1/2022 "Highlands to Oceans (H2O): Anticipatory Governance of Hydroclimatic Regime Shifts in the Transboundary River Basins". delivered to National Institute of Hydrology and Meteorology (INAMHI), Ecuador.
- 11/2021 Keynote talk on "Securing clean water in transboundary Indus, Jordan, Mekong and Amazon river basins through science and environmental diplomacy," UN Climate Conference COP26. Glasgow, UK. November 1-12, 2021
- 10/2021 Integrated assessment modeling of coupled atmospheric-land-river-lake systems: building resilience to climate change in Lake Champlain basin. Vermont Department of Environmental Conservation
- 10/2021 Keynote talk on "Securing clean water in transboundary Indus, Jordan and Amazon river basins through science and environmental diplomacy," International conference on advances in civil and earthquake engineering, Peshawar, Pakistan
- 11/2020 Invited panelist for the session "Cross border desert research -- science and collaboration," The 7th International Conference, Drylands, Deserts & Desertification. <https://dddconf.org/CrossBorder>
- 10/2020 Computational Policy Analytics: Policy Modeling in the Age of Big Data and AI. *University Scholar Lecture*
- 10/2020 Anticipatory Governance of Regime Shifts in Social Ecological Systems: Building Resilience to Climate Change from People to the Planet. *Vogelmann Research Seminar*
- 9/2020 Synergies and Trade-Offs between Climate Change Adaptation and Mitigation across Multiple Scales of Governance. In the book launch session on *Adaptiveness: Changing Earth System Governance*. Cambridge University Press. 2020 Virtual Forum on Earth System Governance
- 4/2020 Computational Policy Analytics: Policy Modeling in the Age of Big Data. *Computational Social Science Program. George Mason University*
- 9/2019 Transboundary Water In-Cooperation Network (TWIN): Environmental Diplomacy for Resolving Persistent Transboundary Water Conflicts in the Indus, Jordan, Kabul, Kali and Missisquoi River Basins. *Keynote talk during Peace Week at Dawson College Peace Center, Montreal, Canada*
- 6/2019 Transboundary Water In-Cooperation Network (TWIN): Environmental Diplomacy for Resolving Persistent Transboundary Water Conflicts. *Lead-Pakistan, Islamabad, Pakistan. Talk #41 in Leading Perspectives series on managing shared basins*
- 4/2019 Computational modeling of social ecological systems: building resilience to climate change in Lake Champlain basin. *NERCCS 2019: Second annual northeast regional conference on complex systems. April 3-5, 2019, SUNY Binghamton, NY*
- 12/2018 Integrative assessment modeling approaches for the management of transboundary watersheds. *Pakistan Institute of Development Economics (PIDE). Quaid-e-Azam University, Islamabad, Pakistan*
- 12/2018 Climate and Water Security in the Indus Basin. *Annual meeting of Pakistan Society of Development Economics. Islamabad, Pakistan*
- 05/2018 Resilience to Extreme Events in Social Ecological Systems. *Earth Lab's Extremes Collider, University of Colorado at Boulder CO.*



- 12/2017 Smart, Resilient and Sustainable Communities: A responsive multi-level governance approach for mitigation and adaptation to climate change in Pakistan. *International Science-Policy Conference on Climate Change in Pakistan. Islamabad, Pakistan*
- 12/2017 Social Ecological Games and Simulations: Integrative Modeling of Policies, Behaviors and Environments. *UNC Charlotte.*
- 11/2017 Implementing Nationally Determined Contributions (NDC's): Planning and coordination at the regional, national and subnational level. *UNFCCC Conference of Parties COP23 Side Event, Bonn Germany*
- 4/2017 Machine learning how human risk perceptions shape behaviors and policies. *Gund Institute for Ecological Economics, Burlington VT*
- 1/2017 Agent based modeling and scenario planning. *NEWRNet Policy Makers Workshop: Human Behavior, Sensor Networks and Water Quality Three State "Virtual" Conference*
- 11/2016 Is Pakistan an El Nino ready nation? *UNFCCC Conference of Parties COP22 Side Event*
- 10/2016 Computational policy analytics: Policy modeling in the age of big data. *UNC Charlotte.*
- 10/2016 Coupled impacts of climate and land use change across a river-lake continuum: insights from an integrated assessment model of Lake Champlain's Missisquoi basin, 2000-2040. *UNC Charlotte.*
- 09/2016 Adaptation to climate change in Lake Champlain basin: Integrated assessment modeling of climate change, land use change, hydrology and lake biogeochemistry interactions. *Lake Champlain Basin Program Technical Advisory Committee.*
- 04/2016 Global Democracy-Deficit in the Age of Anthropocene: Pros and Cons of Institutionalizing an Elected Global Parliament. *Law and Governance for the Anthropocene.* Vermont Law School
- 02/2016 Informing & Analyzing Public Policies with Complexity Science Tools. *Complex Systems in Education Symposium.* Center for Education Integrating Science, Mathematics & Computing. *Georgia Institute of Technology, Atlanta GA*
- 01/2016 COP 21: The Good, The Bad & The Ugly. *Gund Institute for Ecological Economics, Burlington VT*
- 10/2015 Adaptation to Climate Change in Lake Champlain Basin: Implications for Cities and Towns. *VT Town and City Managers Association conference. Burlington VT*
- 10/2015 Adaptation to Climate Change in Lake Champlain Basin: Integrated Assessment Modeling of Climate Change, Land-Use Change, Hydrology and Lake Biogeochemistry Interactions. *Mediated Modeling Workshop. Research on Adaptation to Climate Change. VT EPSCOR*
- 09/2015 Trans-boundary Data Sharing and Resilience Scenarios: Harnessing the Role of Regional Organizations for Environmental Security. *Imagining Indus: Overcoming Water Insecurity in the Indus Basin workshop organized by United Nations University's Institute for Water, Environment & Health, Hamilton ON, Canada*
- 06/2015 The Scramble for Arctic Resources: Reframing energy and resource extraction in the Arctic. "Reframing the Arctic: Cooperation, Not Conflict." *US Department of Defense sponsored workshop organized by Institute for Environmental Diplomacy and Security. Burlington VT*
- 05/2015 Measuring the Impact of Technology Transfer in Health Sector: Health Technology Assessments. *Peruvian Ministry of Health, Lima Peru*
- 09/2012 Computer Simulation Models of Interagency Networks: Applications to Transportation Infrastructure Planning and Watershed Management. *Government Accountability Office, Washington DC*
- 08/2011 Computational Models of Policies, Behaviors and Governance Networks: Applications in Air, Water, Climate, Transportation and Energy Decision Making. *National Sandia Labs, US Department of Energy*
- 02/2011 Cross-Scale Value Trade-Offs in Managing Socio-Ecological Systems: The Politics of Scale in Ruaha National Park, Tanzania. *Gund Institute for Ecological Economics*
- 10/2007 Designing Contextual Decision Support Systems for Evaluating Trade-Offs: A Research Program for Meta-Decision Models. *Invited panelist for a McArthur Foundation funded workshop on "Trade-offs between Conservation and Development" organized by Center for Integrative Conservation Research, University of Georgia at Athens*
- 03/2006 Adaptive Policy Designs: Managing Energy Use for a Sustainable Society. *Department of Environmental Studies, San Jose State University*

- 03/2005    Meta-Decision Models: A Multi-Scalar Adaptive Approach to Model Environmental Policy Designs and Decision Behaviors. *Institute of Behavioral Sciences, University of Colorado at Boulder*
- 06/2004    Cooperative and Non-cooperative Decision Behaviors in Response to Environmental Regulations. *Environmental and Societal Impacts Group, National Center for Atmospheric Research, Boulder*

## TEACHING EXPERIENCE

### **Courses Taught**

- 08/2023 – 12/2023    **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (19 Students).
- 01/2023 – 05/2023    **Smart Resilient Communities** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (29 Students)
- 08/2022 – 12/2022    **Sustainable Development Policy & Governance** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (23 Students)
- 01/2021 – 05/2020    **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (21 Students)
- 01/2021 – 05/2021    **Smart Resilient Communities** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (24 Students)
- 08/2020 – 12/2020    **Public Budgeting & Finance** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (11 Students)
- 01/2020 – 05/2020    **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)
- 01/2020 – 05/2020    **Smart Resilient Communities** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (19 Students)
- 08/2019 – 12/2019    **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students).
- 08/2019 – 12/2019    **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (11 Students)
- 01/2019 – 05/2019    **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (19 Students)
- 01/2019 – 05/2019    **Smart Resilient Communities** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (25 Students)
- 08/2018 – 12/2018    **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (52 Students). Cross-listed with CDAE 266 *Decision Making for Community Entrepreneurship*.
- 01/2018 – 05/2018    **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (17 Students)
- 01/2018 – 05/2018    **Smart Resilient Communities** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)
- 08/2017 – 12/2017    **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)
- 01/2017 – 05/2017    **Resilient Communities: Designing at the nexus of food, energy and water systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (17 Students)
- 01/2017 – 05/2017    **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)
- 08/2016 – 12/2016    **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)
- 01/2016 – 05/2016    **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)
- 08/2015 – 12/2015    **Fundamentals of Public Administration** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (12 Students)

01/2014 – 05/2014 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (20 Students)

08/2013 – 12/2013 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (18 Students)

08/2013 – 12/2013 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (29 Students)

01/2013 – 05/2013 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (8 Students)

08/2012 – 12/2012 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (6 Students)

08/2012 – 12/2012 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (34 Students)

01/2012 – 05/2012 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (7 Students)

08/2011 – 12/2011 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (5 Students)

08/2011 – 12/2011 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (29 Students)

01/2011 – 05/2011 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (6 Students)

01/2011 – 05/2011 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (21 Students)

08/2010 – 12/2010 **Decision Making Models** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (7 Students)

08/2010 – 12/2010 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (24 Students)

01/2010 – 05/2010 **Policy Analysis and Program Evaluation** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (9 Students)

01/2010 – 05/2010 **Sustainable Development Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)

08/2009 – 12/2009 **Policy Systems** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (21 Students)

08/2008 – 12/2008 **Introduction to Public Policy** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (16 Students)

08/2008 – 12/2008 **Fundamentals of Public Administration** Department of Community Development and Applied Economics, University of Vermont, Burlington VT (17 Students)

01/2008 – 05/2008 **Alternative Energy Strategies** Department of Environmental Studies, San Jose State University, San Jose CA (26 Students)

08/2007 – 05/2008 **Global Climate Change** Departments of Environmental Studies, Communication Studies, Geology and Meteorology, San Jose State University, San Jose CA (78 students) *This was a 9-unit one-year course co-taught with Professor Anne Marie Todd and Professor Richard Sedlock*

08/2007 – 12/2007 **Sustainable Energy Seminar** Departments of Environmental Studies and Chemical Engineering, San Jose State University, San Jose CA (26 students). *This was a 1-unit course co-taught with Professor Greg Young*

06/2007 – 07/2007 **Energy Policy Analysis** Department of Environmental Studies, San Jose State University, San Jose CA (17 students)

01/2007 – 05/2007 **Alternative Energy Strategies** Department of Environmental Studies, San Jose State University, San Jose CA (24 students)

01/2007 – 05/2007 **Introduction to Environmental Issues** Department of Environmental Studies, San Jose State University, San Jose CA (24 students)

01/2007 – 05/2008 **Public Service Internships** Department of Environmental Studies, San Jose State University, San Jose CA (20-25 students each semester)

08/2006 – 12/2006 **Solar Energy Applications** Department of Environmental Studies, San Jose State University, San Jose CA (23 students)

- 08/2006 – 12/2006 **Introduction to Environmental Issues** Department of Environmental Studies, San Jose State University, San Jose CA (78 students in 2 Sections)
- 08/1995 – 04/1996 **Politics and Current Affairs** Islamabad Institute of Creative Studies, Islamabad, Pakistan (20 students)

### Teaching Assistantships

- 08/2002 – 12/2002 **Transportation Statistics** Department of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta GA (22 students)
- 08/2001 – 12/2001 **Transportation Statistics** Department of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta GA (11 students)
- 05/2001 – 08/2001 **Science and Technology Values** School of Public Policy, Georgia Institute of Technology, Atlanta GA (59 students)

### PROFESSIONAL ASSOCIATIONS

- Association for Public Policy Analysis and Management
- American Association for the Advancement of Science
- American Geophysical Union
- American Political Science Association
- American Society for Public Administration
- Behavioral Science & Policy Association
- Computational Social Science Society of America
- Earth System Governance
- International Comparative Policy Analysis Forum
- International Research Society for Public Management
- International Society of Ecological Economics
- Public Management Research Association
- Transportation Research Board

### PEER REVIEWED JOURNAL REFEREE

- AI and Society (1)
- Annals of the American Association of Geographers (1)
- Atmospheric Environment (1)
- Climatic Change (2)
- Complexity Governance and Networks (2)
- Computational & Mathematical Organization Theory (2)
- Conservation Biology (3)
- Disasters Journal (2)
- Ecological Economics (3)
- Ecosystem Services (2)
- Environment and Resource Economics (1)
- Environmental Engineering Science (2)
- Environmental Monitoring and Assessment (1)
- Environmental Science & Policy (2)
- Global Environmental Change (4)
- GeoJournal (1)
- Hydrology and Earth System Sciences (1)
- International Journal of Disaster Risk Science (4)
- Islamabad Policy Research Institute (IPRI) Journal (3)
- Journal of Agricultural and Environmental Ethics (2)
- Journal of Air and Waste Management Association (2)
- Journal of Cleaner Production (1)

- Journal of Communication (1)
- Journal of Environmental Management (9)
- Journal of Environmental Psychology (3)
- Journal of Mountain Science (1)
- Journal of Policy & Complex Systems (1)
- Journal of Policy Analysis and Management (1)
- Journal of Public Administration Research & Theory (1)
- Natural Hazards (1)
- Nature Sustainability (1)
- One Earth (2)
- Population and Environment (1)
- Public Administration (1)
- Public Administration Quarterly (1)
- Public Administration Review (1)
- Public Library of Science (PLOS ONE) (5)
- Public Management Review (2)
- Public Performance and Management Review (3)
- Public Understanding of Science (6)
- Research in Transportation Business and Management (1)
- Safety Science (1)
- Sciences of the Total Environment (2)
- Society and Natural Resources (1)
- Sustainability Science (2)
- System Dynamics Review (2)
- The Hague Journal of Diplomacy (1)
- Transportation Research Record (7)

#### **POST-DOCTORAL & THESIS ADVISEES** (\* signifies acted as lead advisor or co-advisor)

**Post-doctoral:** Yushiou Tsai\* (UVM); Steve Scheinert (UVM); Ahmed Hamed\* (UVM); Rebecca Pincus\* (UVM); Gabriela Bucini (UVM), Jory Hecht\* (UVM), Elizabeth Doran\* (UVM), Panagiotis Oikonomou\* (UVM), Sardorbeck Musayev (UVM), Eric Clark\* (UVM)

**Ph.D.:** Eric L. Garza (Natural Resources UVM); Stephen Posner (Natural Resources UVM); Philip Halteman (Natural Resources UVM); Christopher Clement\* (Natural Resources UVM); Dan Fredman (Natural Resources UVM); Courtney Hammond\* (Natural Resources UVM), Linyuan Shang\* (Natural Resources UVM), Kristin Raub\* (Natural Resources UVM); Fahimeh Bahrami (Education Policy UVM), Sarah Coleman (Plant & Soil Science UVM), Shang Wu (Economics University of Delaware), Tracey McCowen (Natural Resources UVM), Andrew Jones (Education Policy UVM), Hans Walter Cabra Hernandez (Educational Leadership and Policy Studies UVM), Claire McIlvennie (Natural Resources UVM), Megan Egler (Natural Resources UVM), Richmond Baye\* (Sustainable Development Policy, Economics and Governance UVM), Rubaina Anjum\* (Sustainable Development Policy, Economics and Governance UVM), Ben Ryan\* (Sustainable Development Policy, Economics and Governance UVM), Halimeh Abuayyash\* (Sustainable Development Policy, Economics and Governance UVM), Masood Ali Khan\* (Sustainable Development Policy, Economics and Governance UVM), Jeannine Valcour\* (Sustainable Development Policy, Economics and Governance UVM), Ali Dadkhah (Civil and Environmental Engineering UVM), Danish Ansari (Sustainable Development Policy, Economics and Governance UVM), Emma Spett ((Sustainable Development Policy, Economics and Governance UVM), Esther Ekitela (Sustainable Development Policy, Economics and Governance UVM), Rigo Melgar (Natural Resources UVM), Vitoria Cardoso (Sustainable Development Policy, Economics and Governance UVM), Shashank Poudel (Sustainable Development Policy, Economics and Governance UVM)

**MPA:** Sawyer McKinley (UVM); Dan Kent (UVM); Drake Turner (UVM); Matt Burke\* (UVM)

**M.S. in Community Development and Applied Economics:** Matt Tucker (UVM); John Woodward (UVM); Richard Nam (UVM); Matt Putnam (UVM); Dan Keeney\* (UVM); Jenn Miller (UVM); Deandra Perruccio\* (UVM); Kati Gallagher (UVM); Emma Spett (UVM); Ben Ryan\* (UVM); Fareed Ahmad\* (UVM); Montana Bailey\* (UVM); Lindsey Bouzan\* (UVM)

**M.S. in Computer Science:** Kevin Andrew\* (UVM), Doug Denu (UVM)

**M.S. in Natural Resources:** Nathaly Agosto Filion (UVM), Ken Brown (UVM), Amanda Egan (UVM), Sam Carlson (UVM), Timothy Pede (UVM), Qing Ren\* (UVM)

**M.S. in Food Systems:** Cecile Reuge (UVM), Serge Wiltshire (UVM)

**M.S. in Environmental Studies:** Ada Marquez-Gonzalo (SJSU), Vani Rao (SJSU)

### CONSULTING ASSIGNMENTS

09/2015 – 06/2016 **Consultant** on a NOAA funded project “El Nino Ready Nations” in ten countries including Pakistan, Philippines, Mexico, South Africa, Cuba, Ethiopia

05/2011 – 06/2011 **Consultant** ARD, Inc. on a US-AID funded “Governance Enhance Project,” Guyana

### NEWSPAPER ARTICLES, BLOGS AND PUBLIC ENGAGEMENT (Selected)

- Profiled in Science Featured. April 2025. <https://sciencefeatured.com/2025/04/09/a-machine-learning-model-discovers-that-60-of-americans-are-confused-about-climate-risk-and-ambivalent-about-supporting-climate-policy/>
- Interview with Sentient: Law and Policy. January 2025. <https://sentientmedia.org/us-taxpayers-poultry-industry-avian-flu/>
- Interview with VPR Vermont Edition, July 2022. <https://www.vermontpublic.org/show/vermont-edition/2022-07-20/algae-blooms-invasive-species-threaten-lake-champlains-health>
- Interview with WCAX, July 2022. <https://www.wcax.com/2022/01/25/uvm-researchers-study-climate-changes-impact-toxic-algae-blooms-lake-champlain/>
- Interview with WCAX, April 2022. <https://www.wcax.com/video/2022/04/13/uvm-gets-grant-study-animal-diseases/>
- Profiled in farms.com. <https://www.farms.com/news/research-surveillance-underway-to-protect-u-s-pigs-from-fatal-swine-virus-177493.aspx>
- Interview with WCAX, January 2022. <https://www.wcax.com/2022/01/25/uvm-researchers-study-climate-changes-impact-toxic-algae-blooms-lake-champlain/>
- Profiled in the newsletter of Water Interest Group in Environmental Peacebuilding Association, October 2020 <https://mailchi.mp/ca561a43a904/wignews-october-issue?e=2cba7a4e21>
- Interview with Vermont Digger, September 2020 <https://vtdigger.org/2020/09/28/study-group-would-help-guide-policies-on-access-to-vermonts-surface-water/>
- Public testimony, Government Accountability Office, August 2020
- Public testimony, State of Vermont Artificial Intelligence Task Force, February 2019. <https://accd.vermont.gov/sites/accdnew/files/documents/TaskForce/Meeting%20Minutes%2011-29.pdf>
- Interviews with VOA (2019)
- Interviews with BBC Urdu service (2019)
- Asim Zia, Caitlin Waddick (2015) *Climate policy needs a new vision*. Appeared at Sci Dev Net on October 14, 2015. <http://www.scidev.net/global/opinion/climate-change-policy-vision-unfccc.html>
- Asim Zia (2015) *Stimulating decentralized markets in the energy sector*. Appeared in the Express Tribune with the International New York Times on January 15, 2015. <http://tribune.com.pk/story/827041/stimulating-decentralised-markets-in-the-energy-sector/>



- Asim Zia (2015) *The rhetoric & reality of the Summit on Countering Violent Extremism*. Appeared in the Express Tribune with the International New York Times on March 5, 2015. <http://tribune.com.pk/story/847853/the-rhetoric-reality-of-the-summit-on-countering-violent-extremism/>
- Interview with BBC Urdu service from UNFCCC COP 20 meeting in Lima, Peru, aired on December 12, 2014. <http://www.awaztoday.tv/News-Talk-Shows/73123/Sairbeen-12th-December-2014.aspx>
- Asim Zia (2013) *Post-Kyoto Climate Governance: Confronting the Politics of Scale, Ideology and Knowledge*. Gund Institute of Ecological Economics (March 22, 2013). Made widely available by Regional Educational Television Network at <http://www.retn.org/show/asim-zia-post-kyoto-climate-governance>
- Asim Zia (2012) *Governing critical transitions in the earth system*. Delivered at TEDxUVM 2012. <https://www.youtube.com/watch?v=6eUBPXL-l80>
- Asim Zia, Stuart Kauffman (2012) *A view from Doha: The time to tackle climate change is now*. <http://www.npr.org/sections/13.7/2012/12/07/166720029/a-view-from-doha-the-time-to-tackle-climate-change-is-now>
- Asim Zia, Stuart Kauffman (2011) *One world government? Not so fast!* Appeared in the NPR's 13.7 cosmos & culture on September 6, 2011. <http://www.npr.org/sections/13.7/2011/09/06/140212789/why-we-need-adaptive-decentralized-and-democratically-anchored-governance>
- Asim Zia (2011) *Cross-scale value trade-offs in managing socio-ecological systems*. Gund Institute for Ecological Economics. <https://www.youtube.com/watch?v=6eUBPXL-l80>