

ASIM ZIA, Ph.D.

Professor of Public Policy and Computer Science
Department of Community Development and Applied Economics (CDAE) &
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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, University of Vermont, Burlington VT (Primary Appointment)

07/2018 – Tenured **Professor**, Department of Computer Science, University of Vermont, Burlington VT (Secondary Appointment)

07/2013 – 06/2018 **Associate Professor**, Department of Community Development and Applied Economics, University of Vermont, Burlington VT (Primary Appointment)

07/2013 – 06/2018 **Associate Professor**, Department of Computer Science, University of Vermont, Burlington VT (Secondary Appointment)

- 08/2008 – 06/2013 **Assistant Professor**, Department of Community Development and Applied Economics, University of Vermont, Burlington VT (Primary Appointment)
- 08/2011 – 06/2012 **Assistant Professor**, Department of Computer Science, University of Vermont, Burlington VT (Secondary Appointment)
- 08/2006 – 06/2008 **Assistant Professor**, Department of Environmental Studies, San Jose State University, San Jose CA (Primary Appointment)
- 08/2004 – 07/2006 **Post-Doctoral Scientist**, Institute for the Study of Society and Environment, National Center for Atmospheric Research, Boulder CO
- 05/2004 – 07/2004 **Graduate Research Assistant** School of Public Policy, Georgia Institute of Technology, Atlanta GA
- 08/2000 – 05/2004 **Graduate Research Assistant** Air Quality Laboratory, School of Civil and Environmental Engineering, Georgia Institute of Technology, Atlanta
- 08/1997 – 03/1998 **Independent Researcher** Heinrich Boell Foundation, Lahore, Pakistan

ADMINISTRATIVE POSITIONS (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 – Present **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** 25th Office Management Group, Secretariat
Training Institute, Federal Government of Pakistan, Islamabad
- 10/1993 – 06/1994 **Probationary Officer,** 21st Commons Group, Civil Services
Academy, Federal Government of Pakistan, Lahore

GRANTS AWARDED

- 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
- 08/2022-07/2024 **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)
- 10/2020-09/2024 **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)
- 09/2019-08/2020 **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**

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. Bomblies, 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](https://doi.org/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

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](https://doi.org/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)
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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.
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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.

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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. 13th 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? 13th 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. 13th Annual Meeting of Earth System Governance. Toronto, Canada. October 2022.
126. Asim Zia* (2022) Theorizing Climate Diplomacy: Frameworks, Applications and Models. *13th Annual Meeting of Earth System Governance*. Toronto, Canada. October 2022.
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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

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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. *12th 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. *12th 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. *12th 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., Clemins, 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 Clemins (2019) Anticipatory Governance of Regime Shifts in Social Ecological Systems: Building Resilience to Climate Change in Transboundary Lake Champlain. *11th 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? *11th 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) 100th 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) 24th 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. *10th 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. *10th 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. *10th 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 Bomblies, Brian Beckage. 2017. Understanding Lags, Thresholds and Cross Scale Dynamics in Social Ecological Systems: Cascading Impacts of Climate and Land Use Adaptation on Missisiquoi 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. 35th 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. 78th 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. 78th 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. *7th 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. *7th 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. *4th 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: 20th 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 Missisquoi watershed of Lake Champlain Basin. *SwarmFest2016: 20th 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: 20th Annual Meeting on Agent-Based Modeling & Simulation*. Burlington VT. July 31- August 2, 2016.
71. Zia*, A., C. Koliba, A. Bomblied, 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 RHESSys," *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: 19th 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: 19th 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. *110th 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. *110th 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 RHESys. *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. *38th 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. *75th 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. *75th 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 5th 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 5th 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. *100th 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. *28th 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 25th 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**

16. Asim Zia*, Patrick J. Clemins, 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) 100th 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) 100th annual meeting*. Washington DC. December 10-14, 2018
11. Jory S. Hecht*, Asim Zia, Brian Beckage, Jonathan Winter, Patrick Clemins, 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? 35th 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 92nd 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

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)

Invited Presentations (Selected)

- 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 21st Century, Islamabad, Pakistan
- 12/2022 "Diversifying HEI Funding Portfolios: Strategic, Tactical and Operational Considerations" International Summit on Higher Education and Workforce Development in 21st 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*

FELLOWSHIPS, AWARDS, AND HONORS

Fulbright Global Scholar 2021-2024, "Securing Clean Water in Transboundary Indus, Jordan and Amazon Basins through Science and Environmental Diplomacy."

University Scholar, University of Vermont, 2020-21

Hubert W. Vogelmann Award for Excellence in Research and Scholarship, College of Agriculture and Life Sciences (CALs), University of Vermont, 2019-20.

Senior Fellow, Global Change Impact Studies Center (GCISC), Ministry of Climate Change, Government of Pakistan. 2018-2019.

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, School of Public Policy, Georgia Institute of Technology, Atlanta GA (2014)

Sea-Sky Scholar, Dalian University of Technology, China (2014-16)

Fellow, Gund Institute of Ecological Economics, University of Vermont, Burlington VT (March 2011 to Present)

Senior Research Fellow, Earth System Governance Project.
<http://www.earthsystemgovernance.org/> (March 2013 to Present)

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

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

UNIVERSITY AND COMMUNITY SERVICE (Selected)

- **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*
- **Co-Editor-in-Chief**, Complexity, Governance and Networks, 2020-2026
- **Coordinating Lead Author**, UNEP Policy Report "Use of Big Data and Frontier Technology for Environmental Peacebuilding" (Expected Spring 2023)
- **Academic Editor**, Complexity, since 2021
- **Member**, Board of Directors, Environmental Peacebuilding Association (2022-2025)
- **Co-chair**, Interest Group on Frontier Technologies in Environmental Peacebuilding, Environmental Peacebuilding Association
- **Member**, Executive Committee, Section on Complexity, Governance and Networks, ASPA (2021-2024)
- **Member** Search Committee, Assistant/Associate Professor of Public Policy/Administration, CDAE, 2022-23
- **Member** Provost Committee on Distinguished Professors and University Scholars, 2022-2025
- **Member** 5th year review committee for Chair, Department of Civil and Environmental Engineering, UVM
- **Lead Organizer**, Session on "Responsible AI Governance and Sensor Technology for Sustainability", ASPA 2023 annual conference
- **Guest Editor**, Special Issue on "Sustainable water resource management under climate change", [Frontiers in Water](#)

- **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*
- **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
- **Lead Organizer**, *A workshop on "Advancing Public Service through Big Data and Artificial Intelligence," ASPA 2019 Annual Conference*
- **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*
- **Guest Editor**, *Special Issue on "Adaptive Governance of Social Ecological Systems," Complexity, Governance and Networks*
- **Member, Scientific Review Committee (SRC)**, National Socio-Environmental Synthesis Center (SESYNC), 2014-17
- **Associate Editor**, *Complexity, Governance and Networks, 2014-2019*
- **Member** Shelburne Planning Commission, 2017-19
- **Member** SWARM Development Group
- **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: 20th Annual Meeting on Agent-Based Modeling & Simulation. Burlington VT. July 31- August 2, 2016.*
- **Member** Complex Systems tenure track search committee, 2013-14
- **Member** 5th 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
- **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)
- **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)

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)
- 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

- 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), 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)

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 Perrucio* (UVM); Kati Gallagher (UVM); Emma Spett (UVM); Ben Ryan* (UVM); Fareed Ahmad* (UVM);

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

M.S. in Natural Resources: Nathaly Agosto Fillion (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)

- 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/uvr-researchers-study-climate-changes-impact-toxic-algae-blooms-lake-champlain/>
- Interview with WCAX, April 2022. <https://www.wcax.com/video/2022/04/13/uvr-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/uvr-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-I80>
- 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-I80>