

SECHINDRA VALLURY

Odum School of Ecology

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Education

- 2014-2019 School of Sustainability, Arizona State University, AZ.
Ph.D., Sustainability. Advisors: Drs. Joshua K Abbott & John M Anderies.
- 2012-2014 Department of Natural Resources, TERI School of Advanced Studies, India.
M.S., Environmental Studies and Resource Management, May 2014.
- 2006-2010 Department of Mechanical Engineering, Jawaharlal Nehru Technological University,
India. B.S., Mechanical Engineering, May 2010.

Professional Experience

- 08/22- Assistant Professor of Environmental Policy, Odum School of Ecology
Director of Policy, River Basin Center, University of Georgia, GA.
- 02/20-07/22 Postdoctoral Associate, WA Franke College of Forestry & Conservation,
University of Montana, MT.
- 09/19-02/20 Postdoctoral Associate, Nicholas School of the Environment, Duke University,
NC.
- 06/18-06/19 Instructor, School of Sustainability, Arizona State University, AZ.
- 08/16-05/18 Research Associate, School of Sustainability, Arizona State University, AZ.
- 01/15-05/16 Teaching Assistant, School of Sustainability, Arizona State University, AZ.

Research Activities

Order of names is as published and does not necessarily indicate priority of authorship. Papers where authorship is equally shared between myself and one or more authors are indicated by a *. Publications involving students or postdocs are indicated with a †.

Peer-Reviewed Journal Articles

14. Smith, A.P.[†], **Vallury, S.**, and Metcalf, E.C. (2023). “Social dimensions of adaptation in rangeland social-ecological systems: A systematic literature review.” *Accepted at Climatic Change*.
13. **Vallury, S.**, Chaffin, B. C., Hamlin, S. L., and Allen, C. R. (2023). “Communication in the science-policy interface: Evidence from a boundary organization in Nebraska, USA.” *Environmental Science & Policy*, 148, 103558.
12. Shin, H.C.[†], Yousefi, P.[†], Park, S.[†], Yu, D.J., Janssen, M., **Vallury, S.**, and Araral, E. (2023). “Coping with Unreliable Water Supply: An Experimental Study of Exit and Voice.” *Water Resources Research*, e2022WR032468.
11. Breetz, H.L., Stokes, L.C.*, **Vallury, S.***, and Cuiffo, K.V. (2022). “City Pledges for 100% Renewable Energy: A Matched Pair Analysis of Policy Adoption.” *Energy Research & Social Science*, 90, 102664.

10. Shin, H.C.[†], **Vallury, S.**, Janssen, M.A., and Yu, D.J. (2022). “Joint effects of voluntary participation and group selection on the evolution of altruistic punishment.” *PLoS ONE*, 17(5), e0268019.
9. **Vallury, S.**, Smith, A.P., Chaffin, B.C., Nesbitt, H.K., Lohani, S., Gulab, S., Banerjee, S., Floyd, T.M., Metcalf, A.L., Metcalf, E.C., Twidwell, D., Uden, D.R., Williamson, M.A., and Allen, C.R. (2022). “Beyond the household: a literature review of scale and aggregation in adaptive capacity research”. *Environmental Research Letters*, 17, 063001.
8. **Vallury, S.**, H. C. Shin, M. A. Janssen, R. Meinzen-Dick, S. Kandikuppa, K. R. Rao, and R. Chaturvedi. (2022). “Assessing the institutional foundations of adaptive water governance in South India”. *Ecology and Society*, 27(1):18.
7. Shin, H.C., **Vallury, S.**, Abbott, J.K., Anderies, J.M., and Yu, D. (2022). “Understanding the role of competitive and participatory institutions in sustainable governance of irrigation systems”. *Ecological Economics*, 191, 107221.
6. **Vallury, S.** and Leonard, B.J. (2022). “Canals, Climate, and Corruption: The Provisioning of Public Infrastructure under Uncertainty”. *Economics & Politics*, 34, 221-252.
5. **Vallury, S.**, Abbott, J. K., Shin, H. C., and Anderies, J. M. (2020). “Sustaining Coupled Irrigation Infrastructures: Multiple Instruments for Multiple Dilemmas.” *Ecological Economics*, 178, 106793.
4. Mueller, V., Masias, I.* , and **Vallury, S.*** (2019). “Labor-Saving Technologies and Structural Transformation in Northern Ghana.” *Agricultural Economics*, 50(5), 581-594.
3. Janssen, M., Anderies, J.M., Baeza, A., Breetz, H.L., Jasinski, T., Shin, H.C., and **Vallury, S.** (2019). “Highways as coupled infrastructure systems: an integrated approach to address sustainability challenges.” *Sustainable and Resilient Infrastructure*, 1-12.
2. Baggio, J.A., Schoon, M., and **Vallury, S.** (2019). “Managing networked landscapes: conservation in a fragmented, connected world.” *Regional Environmental Change*, 19(8), 2551-2562.
1. Bernstein, M.J., Mancha-Cisneros, M., Tyson, M., Brady, U.* , Shin, H.C.* , **Vallury, S.***, Smith-Heisters, S., Ratajczyk, E. (2019). “Mapping Ostrom’s Common-pool Resource Systems Coding Handbook to the Coupled Infrastructure Systems Framework to Enable Comparative Research.” *International Journal of the Commons*, 13(1), 528-52.

Manuscripts in Review

Olivier, T.* and **Vallury, S.*** “Institutional Fit in Collaborative Water Governance: Nebraska’s Natural Resources Districts.” *Revise & resubmit at Policy Studies Journal*.

Benedum, M.E.[†], Cook, N.J., and **Vallury, S.** (2023). “Out-Migration and Participation in Community-Based Natural Resource Management: The Role of Remittances.” *Under review at Current Research in Environmental Sustainability*.

Vallury, S., Cook, N.J., and Nelson, D. “Social inequalities shape climate change adaptation in Indian farmers.” *Under review at Environmental Research Letters*.

Nesbitt, H., Metcalf, A., Floyd, T., Uden, D., Chaffin, B., Gulab, S., Banerjee, S., **Vallury, S.**, Hamlin, S., Metcalf, E., Fogarty, D., Twidwell, D., and Allen, C. “Social networks and transformative behaviors in a grassland social-ecological system.” *Revise & resubmit at People & Nature*.

Work in Preparation

Vallury, S., Cook, N.J., Nelson, D., and Rao, Shishir. “Heterogeneous climate effects on rural migration in India.”

Vallury, S., Nelson, D., and Cook, N.J. “Spatial and temporal dimensions of weather shocks and migration in India.”

Vallury, S. and Olivier, T. “A review of institutional design for collaborative water governance.”

Vallury, S., Jungers, B., Cook, N.J., and Koontz, T. “Unpacking information in public good experiments.”

Vallury, S., Abbott, J.K., and Anderies, J.M. “Persistence of Cultural Norms, Elites, and Political Institutions.”

Teaching Activities

Courses Taught

- Agent-Based Modeling (Fall 2023)
- Environmental Policy & Natural Resource Management (Fall 2023)
- Water Policy Seminar (Spring 2023)
- Introduction to Applied Math for the Life & Social Sciences (Summer 2017-2019; Fall 2018)
- Economics of Sustainability (Spring 2019)
- Systems, Dynamics & Sustainability (Spring 2019)

Research Grants

- 2023-2024 National Science Foundation CRISES Program (Co-PI, \$100,000).
- 2023-2024 UGA E-Mobility Initiative Seed Proposal Program (Co-PI, \$65,000).
- 2023-2024 UGA Teaming for Interdisciplinary Research Pre-Seed Grant (PI, \$4,000).
- 2018-2019 Graduate Dissertation Fellowship, Center for Study of Economic Liberty, Arizona State University, AZ. (\$10,000).
- 2018-2019 Humane Studies Fellowship, Institute for Humane Studies, (\$5,000).
- 2016-2017 Neely Foundation Food & Agriculture Sustainability Research Grant, School of Sustainability, Arizona State University, AZ. (\$4,000).

Awards & Fellowships

- 2023-2024 UGA Teaching Academy Early Career Fellows Program.
- 2021-2022 Hayek Travel Fund, Institute for Humane Studies, (\$1600).
- 2018-2019 Adam Smith Fellowship, Mercatus Center, (\$10,000).

Research Grants Submitted

- 09/2023 The Belmont Forum-CRA-CCH. “Mitigation and adaptation in cultural heritage landscapes: Lessons from transhuman pastoral systems for managing novel climate risks.” (Co-PI, \$399,906.) *Recommended for Funding.*
- 08/2023 NSF-HEGS. “Equitable Pathways to Climate-Smart Agriculture: Rethinking Adaptation as a Continuum.” (PI, \$400,000). *Pending Review.*
- 09/2023 USDA-NIFA-AFRI. “Human And Natural Dimensions of Soil HeAlth LinKed: (HAND-SHAKE).” (Co-PI, \$749,180). *Pending Review.*

- 07/2023 USDA-FAS. “Gender Disparities in Collaborative Groundwater Governance: Experiential Tools to Enhance Inclusion of Disadvantaged Groups.” (PI, \$50,000). *Declined*.
- 05/2023 NSF-CLIMA. “Enhancing Water Infrastructure Resilience in Small Cities and Towns: A Multi- level Agent Based Modelling Analysis for Climate Change Adaptation Decision Making.” (Co-PI, \$95,973). *Declined*.

Conference Participation

- “Social inequalities shape climate change adaptation among Indian farmers”. 2023 Association of Public Policy Analysis & Management. November 9-11, 2023.
- “Institutional Fit and Policy Design in Water Governance: Nebraska’s Natural Resources Districts”. 2023 Association of Public Policy Analysis & Management. November 9-11, 2023.
- “Social inequalities shape climate change adaptation among Indian farmers”. XIX Biennial IASC Conference, Nairobi. June 19-24, 2023.
- (*Invited*) Panel on “Natural Infrastructure and Equity”. 2023 Georgia Water Resources Conference. March 30-31, 2023.
- “Assessing the institutional foundations of adaptive water governance in South India”. 2022 Toronto Conference on Earth System Governance. October 20-24, 2022.
- “Beyond the household: a literature review of scale and aggregation in adaptive capacity research”. International Association for Society and Natural Resources Virtual Conference. 20-22 June, 2021.
- “Institutions Without Romance: Corruption and Provision of Shared Infrastructure in Canal Irrigation Systems.” 6th Workshop on the Ostrom Workshop, Indiana University, Bloomington, June 19-21, 2019.
- “Technology Adoption in the Presence of Shared Infrastructure: The Case of Long-Enduring Tank Irrigation Systems in India.” 2018 Utrecht Conference on Earth System Governance, November 5-8, 2018.
- (*Invited*) “Technology Adoption in the Presence of Shared Infrastructure: The Case of Long-Enduring Tank Irrigation Systems in India.” IHS Graduate Research Colloquium, Arlington, VA, October 12-14, 2018.
- “Institutions Without Romance: Corruption and Provision of Shared Infrastructure in Canal Irrigation Systems.” 55th Annual Meetings of the Public Choice Society, Charleston, SC, March 1-3, 2018.
- “Labor-Saving Technologies and Structural Transformation in Northern Ghana.” Workshop on Gender, Agricultural Growth, and Rural Transformation Research in the CGIAR, International Food Policy Research Institute, Washington D.C., December 14-15, 2017.

Student Mentoring

Graduate Students

Jonathan Parrish, Advisor, M.S. Integrative Conservation and Sustainability.

Crystal Pendargast, Committee Member, M.S. Integrative Conservation and Sustainability.

Sabyasachi Kar, Committee Member, M.S. Warnell School of Forestry & Natural Resources.

Megan Seidel, Committee Member, MNR Warnell School of Forestry & Natural Resources.

Undergraduate Students

Professional Service

- Associate Editor, Ecology & Society
- Reviewer of Journals:
 - ◊ Policy Studies Journal
 - ◊ World Development
 - ◊ Ecological Economics
 - ◊ Environmental Science and Policy
 - ◊ International Journal of Commons
- Grant Reviewer, 2023 National Science Foundation Human-Environment Geographical Systems
- Grant Reviewer, 2023 Social Sciences and Humanities Research Council of Canada

Administration

- Co-organizer, 2023 Georgia Water Resources Conference
- Organizer, 2023 Confluence: RBC Water Science and Policy Poster Symposium

University Service

- 2024-2027 University Council

Professional Memberships

- American Association of Geographers
- American Economic Association
- American Political Science Association
- International Association for Society and Natural Resources
- International Association for the Study of the Commons

Related Programming Skills

- Simulation Software: R, MATLAB, NetLogo, XPPAUT
- Statistical Software: STATA, R
- Other: QGIS, \LaTeX