

Megan Konar

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Civil and Environmental Engineering
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Education

Princeton University

Ph.D. Civil and Environmental Engineering 2012
M.S. Civil and Environmental Engineering 2009
Certificate in Science, Technology, and Environmental Policy

University of Oxford

M.Sc. Water Science, Policy, and Management 2005

University of California at Berkeley

B.S. Conservation and Resource Studies, Minor in Forestry 2002

Academic Appointments

University of Illinois at Urbana-Champaign (UIUC)

Assistant Professor, Civil and Environmental Engineering 2013-
Visiting Scholar, Institute of Government and Public Affairs 2014-
Post-Doctoral Research Fellow, Civil and Environmental Engineering 2012-2013

Fellowships and Awards

William J. and Elaine F. Hall Faculty Fellow in Civil & Environmental Engineering 2017
DISCCRS VIII Symposium Scholar 2013
Princeton Energy and Climate Scholarship, Princeton Environmental Institute 2011-2012
EOS Research Spotlight, The Global Virtual Water Trade Network 2011
Ford Fellow, Woodrow Wilson School of Public and International Affairs 2010-2012
Predoctoral Fellowship, Association for Women in Science 2010
Graduate Research Fellowship, National Science Foundation 2007-2010
Holly A. Cornell Scholarship, American Water Works Association 2007
Hertford College Travel Grant, University of Oxford 2005
Certificate of Appreciation, Federal Emergency Management Agency 2003
Forestry Fellowship, University of California at Berkeley 2001
High Honors, University of California at Berkeley 2000-2002

Research Grants

“**Global virtual water trade**”, Co-PI with PI Sandy Dall’erba (UIUC) and Co-PI Francina Dominguez (UIUC), Future Interdisciplinary Research Explorations (FIRE) program, Office of Research, UIUC, 2017-2019, \$60,000.

“**INFEWS/Track 1: Mesoscale Data Fusion to Map and Model the U.S. FEW system (INFEWSion)**”, Institutional PI (UIUC) with PI Benjamin L. Ruddell (Northern Arizona University), Institutional PI John Sabo (Arizona State University), Institutional PI Christopher

Lant (Utah State University), and Institutional PI Alfonso Mejia (Penn State University), National Science Foundation, 2016-2020, \$3,000,000 (ACI-1639529).

“Hazards SEES: Understanding cross-scale interactions of trade and food policy to improve resilience to drought risk”, Institutional PI (UIUC) with PI Justin Sheffield (Princeton University), Co-PI Kelly Caylor (Princeton University), Co-PI Lyndon Estes (Princeton University) and Institutional PI Tom Evans (Indiana University), National Science Foundation, 2015-2019, \$2,500,000 (BCS-1534544).

“Climate change in Illinois”, Co-PI with PI Don Fullerton (UIUC) and Co-PI Julian Reif (UIUC), Institute of Government and Public Affairs, UIUC, 2014-2017, \$125,000.

“Towards socio-hydrologic synthesis: modeling the co-evolutionary dynamics of coupled human, water, and ecological systems”, Co-PI with PI Murugesu Sivapalan (UIUC) and Co-PI Tara Troy (Lehigh University), National Science Foundation Socio-Environmental Synthesis Center (SESYNC), 2014-2015, \$90,000.

“Extending the curriculum content of an existing sketch recognition tutoring system with immediate feedback to engage cross-disciplinary instructors”, Co-PI with PI Joshua Peschel (UIUC) and Co-PI Cassandra Rutherford (UIUC), Strategic Instructional Initiatives Program, UIUC, 2014, \$68,000.

“Risk management and water resources sustainability”, Co-PI with PI Tatyana Deryugina (UIUC), Research Board, UIUC, 2014, \$10,000 (ID# RB14188).

“A flow net sketch recognition tutoring system: Improved student learning through mobile active learning and immediate student feedback”, Co-PI with PI Joshua Peschel (UIUC) and Co-PI Cassandra Rutherford (UIUC), Strategic Instructional Initiatives Program, UIUC, 2013, \$50,000.

“Advancing socio-hydrology, a new science of people and water”, Co-PI with PI Murugesu Sivapalan (UIUC) and Co-PI Ximing Cai (UIUC), Research Thrust Program, Civil and Environmental Engineering, UIUC, 2013, \$25,000.

Teaching

Fall 2017, CEE 598: Globalization of Water, CEE Department, UIUC
Fall 2017, CEE 350: Water Resources Engineering, CEE Department, UIUC
Summer 2017, CUAHSI Master Course: Water Sustainability in a Global Economy
Fall 2016, CEE 598: Globalization of Water, CEE Department, UIUC
Fall 2015, CEE 598: Globalization of Water, CEE Department, UIUC
Fall 2015, CEE 350: Water Resources Engineering, CEE Department, UIUC
Fall 2014, CEE 350: Water Resources Engineering, CEE Department, UIUC
Spring 2014, CEE 350: Water Resources Engineering, CEE Department, UIUC
Fall 2013, CEE 597: Research Topics in Virtual Water, CEE Department, UIUC
Fall 2013, CEE 350: Water Resources Engineering, CEE Department, UIUC
Spring 2012, TA, ENV 201 Introduction to Environmental Studies, CEE Dept, Princeton University

Papers In Review

[R2] Lant, C. et al (In Review), The U.S. Food-Energy-Water System: A blueprint to fill the mesoscale gap for science and decision-making.

[R1] **Konar, M.**, X. Lin*, B. Ruddell, and M. Sivapalan (In Review), Scaling properties of food flow

networks.

Journal Publications

* indicates student

- [J28] Marston, L.* , Y. Ao* , **M. Konar**, M. Mekonnen, and A.Y. Hoekstra (2018), High-resolution water footprints of production of the United States, *Water Resources Research*, doi: 10.1002/2017WR021923.
- [J27] Ou, S., S. Liang, **M. Konar**, Z. Zhu, A. Chiu, X. Jia, and Ming Xu (2018), Virtual water scarcity risk to the global trade system, *Environmental Science & Technology*, Vol 52, Issue 2, pp. 673-683, doi: 10.1021/acs.est.7b04309.
- [J26] Dang, Q.* and **M. Konar** (2018), Trade openness and domestic water use, *Water Resources Research*, Vol 54, Issue 1, pp. 4-18, doi: 10.1002/2017WR021102.
- [J25] Deryugina, T., and **M. Konar** (2017), Impacts of crop insurance on water withdrawals for irrigation, *Advances in Water Resources*, Vol 110, pp. 437-444, doi: 10.1016/j.advwatres.2017.03.013.
- [J24] Wada, Y., M.F.P. Bierkens, A. de Roo, P.A. Dirmeyer, J.S. Famiglietti, N. Hanasaki, **M. Konar**, J. Liu, H. Müller-Schmied, T. Oki, Y. Pokhrel, M. Sivapalan, T.J. Troy, A.I.J.M. van Dijk, T. van Emmerik, M.H.J. van Huijgevoort, H.A.J. van Lanen, C.J. Vörösmarty, N. Wanders, and H. Wheeler (2017), Human-water interface in hydrological modeling: current status and future directions, *Hydrology and Earth System Sciences*, Vol 21, pp. 4169-4193, doi: 10.5194/hess-21-4169-2017.
- [J23] Srinivasan, V., **M. Konar**, and M. Sivapalan (2017), A dynamic framework for water security, *Water Security*, Vol 1, pp. 12-20, doi: 10.1016/j.wasec.2017.03.001.
- [J22] Marston, L.* and **M. Konar** (2017), Drought impacts to water footprints and virtual water transfers of the Central Valley of California, *Water Resources Research*, Vol 53, doi: 10.1002/2016WR020251.
- [J21] Chini, C., **M. Konar**, and A.S. Stillwell (2017), Direct and indirect urban water footprints of the United States, *Water Resources Research*, Vol 53, doi: 10.1002/2016WR019473.
- [J20] Srinivasan, V., M. Sanderson, M. Garcia, **M. Konar**, G. Blöschl, and M. Sivapalan (2016), Panta Rhei opinion: Prediction in a socio-hydrological world, *Hydrological Sciences Journal*, Vol 62, Issue 3, pp. 1-8, doi: 10.1080/02626667.2016.1253844.
- [J19] **Konar, M.**, T.P. Evans, M. Levy, C.A. Scott, T.J. Troy, C.J. Vörösmarty, and M. Sivapalan (2016), Water resources sustainability in a globalizing world: who uses the water? *Hydrological Processes*, Vol 30, Issue 18, pp. 3330-3336, doi: 10.1002/hyp.10843.
- [J18] **Konar, M.**, J.J. Reimer, Z. Hussein, and N. Hanasaki (2016), The water footprint of staple crop trade under climate and policy scenarios, *Environmental Research Letters*, Vol 11, Issue 3, 035006, doi: 10.1088/1748-9326/11/3/035006.
- [J17] Dang, Q.* , **M. Konar**, J.J. Reimer, G. Di Baldassarre, R. Zeng, and X. Lin* (2016), A theoretical model of water and trade, *Advances in Water Resources*, Vol 89, pp. 32-41, doi: 10.1016/j.advwatres.2015.12.016.
- [J16] Troy, T.J., **M. Konar**, V. Srinivasan, and S. Thompson (2015), Moving sociohydrology forward: A synthesis across studies, *Hydrology and Earth System Sciences*, Vol 19, pp. 3667-3679, doi: 10.5194/hess-19-3667-2015.
- [J15] Paterson, W., R. Rushforth, B.L. Ruddell, **M. Konar**, I.C. Ahams, J.A. Gironás, A. Mijic, and A. Mejia (2015), Water footprint of cities: A review and suggestions for future research, *Sustainability*, Vol 7, Issue 7, pp. 8461-8490, doi: 10.3390/su7078461.
- [J14] Marston, L.* , **M. Konar**, X. Cai, and T.J. Troy (2015), Virtual groundwater transfers from over-exploited aquifers in the United States, *Proceedings of the National Academy of Sciences*, Vol 112, No 28,

pp. 8561-8566, doi: 10.1073/pnas.1500457112.

[J13] Jackson, N.* , **M. Konar**, and A.Y. Hoekstra (2015), The water footprint of food aid, *Sustainability*, Vol 7, Issue 6, pp. 6435-6456, doi: 10.3390/su7066435.

[J12] Dang, Q.* , X. Lin* , and **M. Konar** (2015), Agricultural virtual water flows within the United States, *Water Resources Research*, Vol 51, Issue 2, pp. 973-986, doi: 10.1002/2014WR015919.

[J11] Lin, X.* , Q. Dang* , and **M. Konar** (2014), A network analysis of food flows within the USA, *Environmental Science & Technology*, Vol 48, Issue 10, pp. 5439-5447, doi: 10.1021/es500471d.

[J10] Sivapalan, M., **M. Konar**, V. Srinivisan, A. Chhatre, A. Wutich, C. Scott, J.L. Wescoat, and I. Rodríguez-Iturbe (2014), Socio-hydrology: Use-inspired water sustainability science for the Anthropocene, *Earth's Future*, Vol 2, pp. 225-230, doi: 10.1002/2013EF000164.

[J9] **Konar, M.** and K.K. Caylor (2013), Virtual water trade and development in Africa, *Hydrology and Earth System Sciences*, Vol 17, pp. 3969-3982, doi: 10.5194/hess-17-3969-2013.

[J8] **Konar, M.**, Z. Hussein, N. Hanasaki, D.L. Mauzerall, and I. Rodríguez-Iturbe (2013), Virtual water trade flows and savings under climate change, *Hydrology and Earth System Sciences*, Vol 17, pp. 3219-3234, doi:10.5194/hess-17-3219-2013.

[J7] **Konar, M.**, M.J. Todd, R. Muneeppeerakul, A. Rinaldo, and I. Rodríguez-Iturbe, (2013), Hydrology as a driver of biodiversity: Controls on carrying capacity, niche formation, and dispersal, *35th Anniversary Issue of Advances in Water Resources Research*, Vol 51, pp. 317-325, doi: 10.1016/j.advwatres.2012.02.009.

[J6] Dalin, C., S. Suweis, **M. Konar**, N. Hanasaki, and I. Rodríguez-Iturbe (2012), Modeling past and future structure of the global virtual water trade network, *Geophysical Research Letters*, Vol 39, Issue 24, L24402, doi: 10.1029/2012GL053871.

[J5] **Konar, M.**, C. Dalin, N. Hanasaki, A. Rinaldo, and I. Rodríguez-Iturbe (2012), Temporal dynamics of blue and green virtual water trade networks, *Water Resources Research*, Vol 48, Issue 7, W07509, doi: 10.1029/2012WR011959.

[J4] Dalin, C., **M. Konar**, N. Hanasaki, A. Rinaldo, and I. Rodríguez-Iturbe, (2012), Evolution of the global virtual water trade network, *Proceedings of the National Academy of Sciences*, Vol 109, Issue 16, pp. 5989-5994, doi: 10.1073/pnas.1203176109.

[J3] Suweis, S., **M. Konar**, C. Dalin, N. Hanasaki, A. Rinaldo, and I. Rodríguez-Iturbe (2011), Structure and Controls of the Global Virtual Water Trade Network, *Geophysical Research Letters*, Vol 38, Issue 10, L10403, doi: 10.1029/2011GL046837.

[J2] **Konar, M.**, C. Dalin, S. Suweis, N. Hanasaki, A. Rinaldo, and I. Rodríguez-Iturbe (2011), Water for food: The global virtual water trade network, *Water Resources Research*, Vol 47, Issue 5, W05520, doi: 10.1029/2010WR010307.

[J1] **Konar, M.**, R. Muneeppeerkul, S. Azaele, E. Bertuzzo, A. Rinaldo, and I. Rodríguez-Iturbe (2010), Potential impacts of precipitation change on large-scale patterns of tree diversity, *Water Resources Research*, Vol 46, Issue 11, W11515, doi: 10.1029/2010WR009384.

Other Publications

Does crop insurance impact water use? Institute of Government and Public Affairs Policy Brief, with Tatyana Deryugina, Don Fullerton and Julian Reif, XX 2018.

Does a carbon policy really burden low-income families? Institute of Government and Public Affairs Policy Brief, with Don Fullerton and Julian Reif, 20 April 2017.

Does global climate change affect air pollution in Illinois? Institute of Government and Public Affairs

Policy Brief, with Don Fullerton and Julian Reif, 26 July 2016.

Illinois' climate is changing, *Illinois Issues*, with Don Fullerton and Julian Reif, 31 July 2015.

Francis' call for action on climate change is opportunity for Illinois, *Crain's Chicago Business*, with Don Fullerton and Julian Reif, 23 June 2015.

Preparing for Climate Change in Illinois, Institute of Government and Public Affairs Policy Brief, with Kathy Baylis, Tatyana Deryugina, Don Fullerton and Julian Reif, 15 May 2015.

U.S. Clean Power Plan Gives Illinois a Chance for Significant State Revenue, *Illinois Issues*, with Don Fullerton and Julian Reif.

Quantifying the potential impacts of climate change on vegetation diversity at large spatial scales, with Ignacio Rodríguez-Iturbe, In: *The Scientific Legacy of the 20th Century: The Proceedings of the Plenary Session*, 28 Oct - 1 Nov, 2010. Proceedings of the Vatican Academy of Sciences, Vatican Press.

Drought boosts metering in the Southeast of England, *Global Water Intelligence*, Vol 7, Issue 7, pp. 10-11.

Desalination water markets in Asia, *Global Water Intelligence*, Media Analytics, Inc., Oxford, England.

Rainwater harvesting in rural India: Taankas in the Thar Desert, *Waterlines*, with Om Prakash Sharma, Vol 25, Issue 4, pp. 22-24.

The environment following terrorism, Unpublished Senior Thesis, College of Natural Resources, University of California at Berkeley. Referenced in: O'Neill, K. (2004) Transnational protest: States, circuses, and conflict at the frontline of global politics, *International Studies Review*, Vol 6, Issue 2, pp. 233-251.

Invited Presentations

* Presentation by co-author ** Presentation by student

Global gridded crop specific agricultural areas from 1961-2014, Civil & Environmental Engineering Department Seminar, University of Wisconsin at Madison, Madison, WI 01 Mar 2018.

Global gridded crop specific agricultural areas from 1961-2014, Oral presentation at the AGU Fall Meeting, Abstract 208374, New Orleans, LA 11-15 December 2017.

Water use data to enhance scientific and policy insight, Panel presentation at the AGU Fall Meeting, Abstract 244085, New Orleans, LA 11-15 December 2017.

Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Civil & Environmental Engineering Department Seminar, University of Iowa, Iowa City IA 03 November 2017.

Data science in food, energy, and water, Illinois Data Science Symposium, UIUC, Champaign, IL 10 October 2017.

Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Civil & Environmental Engineering Department Seminar, Cornell University, Ithaca NY 14 September 2017.

Scaling properties of commodity flow networks, Oral presentation at the JpGU-AGU Joint Meeting, Abstract C000320, Japan, 20-25 May 2017.

Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Oral presentation at the JpGU-AGU Joint Meeting, Abstract C000153, Japan, 20-25 May 2017.

Panelist, Machine Learning: Farm-To-Table Workshop, UIUC, Champaign, IL 18-20 April 2017.

Plenary Speaker, Drought impacts to water footprints and virtual water transfers of the Central Valley

of California, “The Fate of the Earth: Water in the Climate-Food-Energy-Water Nexus”, Michigan State University, Lansing, MI 12-14 April 2017.

Panelist, Water and globalization panel, Rose-Hulman Institute of Technology, Terre Haute, IN 20 October 2016.

Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Ezra’s Round Table Systems Seminar, Cornell University, Ithaca, NY 14 October 2016.

Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Regional Economics Applications Laboratory (REAL) seminar, UIUC, Champaign, IL 20 September 2016.

Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Virtual water in agricultural products: Quantification, limitations, and trade policy workshop, University of Nebraska at Lincoln, Lincoln, NE 15 September 2016.

Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Food and Data Workshop: Interoperability through the Food Pipeline, UIUC, Champaign, IL 12 September 2016.

Virtual groundwater transfers from overexploited aquifers of the United States & Crop insurance increases withdrawals for irrigation in agriculture, America’s Water Webinar, Columbia University, 08 Dec 2015.

Virtual groundwater transfers from overexploited aquifers of the United States, Exchange Club of Urbana, Urbana, IL 12 Nov 2015.

Virtual groundwater transfers from overexploited aquifers of the United States & Crop insurance increases withdrawals for irrigation in agriculture, Atmospheric Sciences Department, UIUC, Champaign, IL 11 Sept 2015.

A network analysis of food flows within the United States, Transport Chicago, Chicago, IL 12 Jun 2015.

Virtual groundwater transfers from overexploited aquifers of the United States, London School of Economics, London, United Kingdom, 27 May 2015.

Panelist, Let’s Talk About Water, Illinois Water Day, UIUC, Champaign, IL, 10 Apr 2015.

Virtual groundwater transfers from overexploited aquifers of the United States, École polytechnique fédérale de Lausanne, Lausanne, Switzerland, 01 Apr 2015.

Food trade and its water footprint under climate and policy scenarios, Poster presentation at the AGU Fall Meeting, Abstract H13I-1217, San Francisco, CA 15-19 Dec 2014.

Food and virtual water transfers in the USA, Program in Environment and Resource Economics Brown Bag Series, UIUC, Champaign, IL 15 Sept 2014.

Network analysis of food and virtual water flows in the USA, Construction Engineering Research Laboratory (CERL), United States Army Corps of Engineers, Champaign, IL 18 Jun 2014.

Virtual water trade and development in Africa, Oral presentation at the European Geosciences Union General Assembly, Vienna, Austria 01 May 2014.

The water footprint of food trade under climate change, International Institute for Applied Systems Analysis, Vienna, Austria 28 Apr 2014.

The water footprint of food trade under climate change, Institute of Government & Public Affairs, UIUC, Urbana, IL 23 Apr 2014.

The water footprint of trade under climate change, Earth Sciences Department, Indiana University-Purdue University Indianapolis, Indianapolis, IN 3 Mar 2014.

*Observed and potential global pathways of virtual water trade, Session “Socio-hydrology: Co-evolution and future of human-water resource systems”, 2013 American Association for the Advancement of Science (AAAS) Annual Meeting, Boston, MA 15 Feb 2013.

Virtual water trade flows under climate change, Urban Networks Workshop, Arizona State University, Tempe, AZ 1-2 Nov 2012.

Virtual water trade flows under climate change, Session “Predictions Under Change (PUC): Visions for understanding and managing water, Earth and biota in the Anthropocene”, CUAHSI 3rd Biennial Colloquium on Hydrologic Science and Engineering, UCAR, Boulder, CO 17-18 July 2012.

Water for biodiversity and food, Natural Resources and Environmental Sciences Department, UIUC, 30 March 2012.

Water for biodiversity and food, Civil & Environmental Engineering Department, UIUC, 2 April 2012.

Hydrologic drivers of tree biodiversity: The impact of climate change, AGU Fall Meeting, Abstract H31G-05, San Francisco, CA, 14-18 December 2010.

Presentations

* Presentation by co-author ** Presentation by student

**High resolution production water footprints of the United States, Oral presentation at the AGU Fall Meeting, Abstract H32G-07, New Orleans, LA 11-15 December 2017.

*A dynamic framework for water security, Poster presentation at the EGU General Assembly, Abstract EGU2017-4225, Vienna, Austria 28 Apr 2017.

**Global climate shocks to agriculture from 1950 to 2015, Oral presentation at the AGU Fall Meeting, Abstract 178184, San Francisco, CA 12-16 Dec 2016.

**Drought impacts to water footprints and virtual water transfers of the Central Valley of California, Oral presentation at the AGU Fall Meeting, Abstract 120465, San Francisco, CA 12-16 Dec 2016.

Scaling effect in trade network, Poster presentation at the AGU Fall Meeting, Abstract H13G-1620, San Francisco, CA 14-18 Dec 2015.

**A theoretical model of water and trade, Poster presentation at the AGU Fall Meeting, Abstract H13G-1617, San Francisco, CA 14-18 Dec 2015.

**The water footprint of food aid, Poster presentation at the AGU Fall Meeting, Abstract H13D-1575, San Francisco, CA 14-18 Dec 2015.

**Virtual groundwater transfers from overexploited aquifers in the United States, Oral presentation at the AGU Fall Meeting, Abstract H11L-06, San Francisco, CA 14-18 Dec 2015.

Crop insurance increases water withdrawals for irrigation in agriculture, Oral presentation at the AGU Fall Meeting, Abstract H33O-04, San Francisco, CA 14-18 Dec 2015.

Impact of crop insurance on crop water use, Association of American Geographers Annual Meeting, Abstract 90080767, Chicago, IL 21-25 Apr 2015.

Virtual groundwater transfers from overexploited aquifers of the United States, Student Sustainability Initiatives Symposium, Champaign, IL 18 Apr 2015.

Agricultural virtual water flows in the USA, Oral presentation at the AGU Fall Meeting, Abstract H41L-05, San Francisco, CA 15-19 Dec 2014.

Impact of crop insurance on crop water use, Poster presentation at the Robert B. Daugherty Water for Food Institute, Global Water for Food Conference, Seattle, WA, 21 Oct 2014.

Virtual water transfers from overexploited aquifers, Poster presentation at the Robert B. Daugherty Water for Food Institute, Global Water for Food Conferences, Seattle, WA, 21 Oct 2014.

Virtual water trade and development in Africa, Oral presentation at the EGU General Assembly, Abstract EGU2014-2027, Vienna, Austria 30 Apr 2014.

A theoretical model of water and trade, Poster presentation at the EGU General Assembly, Abstract EGU2014-2028, Vienna, Austria 01 May 2014.

Virtual water trade flows and savings under climate change, Poster presentation at the AGU Fall Meeting, Abstract GC13B-1064, San Francisco, CA, 9-13 December 2013.

Temporal dynamics of blue and green virtual water trade networks, Poster presentation at the AGU Fall Meeting, Abstract H11H-1277, San Francisco, CA, 3-7 December 2012.

*Modeling and predicting the structure of the global virtual water trade network, Poster presentation at the AGU Fall Meeting, Abstract H11H-1278, San Francisco, CA, 3-7 December 2012.

*Strengthening students of sustainability: Interdisciplinary approaches, Presented at the Rio +20 International Conference on Sustainable Development, Rio de Janeiro, Brazil, 20 June 2012.

Network analysis of global virtual water trade, Seminar, Science, Technology, and Environmental Policy Program, Princeton University, 17 April 2012.

Network analysis of global virtual water trade, Seminar, Princeton Energy and Climate Scholars, Princeton University, 24 April 2012.

Water for food: The global virtual water trade network, Poster presentation at the AGU Fall Meeting, Abstract GC13A-0965, San Francisco, CA, 5-9 December 2011.

*Dynamics of the global virtual water trade network, Poster presentation at the AGU Fall Meeting, Abstract GC13A-0964, San Francisco, CA, 5-9 December 2011.

Water for food: A complex network approach to virtual water trade, Princeton Research Symposium, Princeton, NJ, December 2010.

Potential impacts of precipitation change on large-scale patterns of tree diversity, Poster presentation at the AGU Fall Meeting, Abstract GC511-0833, San Francisco, CA, 13-17 December 2010.

Drinking water in India: Storing monsoon rains in the desert, Oxford Centre for Water Research, University of Oxford, 15 September 2005.

Media

The Food Fix: “How investing in infrastructure can make the world less hungry”, radio interview with Ben Muir, 20 May 2017.

WTAX Radio: “Link between buying crop insurance and using water”, radio interview with Dave Dahl, 15 May 2017.

The 21st, Illinois Public Radio: “Study: Crop insurance linked to increased water usage”, radio interview with Niala Boodhoo, 06 April 2017.

WTTW Chicago Tonight: “Air pollution action day issued for Wednesday”, by Reuben Unrau, 27 July 2016.

Yale Environment Review: “Virtual water flows and trade: The complex relationship between agriculture and water”, by Sam Cohen, 21 January 2016.

New York Times: “California wants to store water for farmers, but struggles over how to do it”, by Justin Gillis, 21 December 2015.

LA Times: “Cities’ food supplies are eating into groundwater reserves, study finds”, by Sasha Harris-Lovett, 3 July 2015.

TAKEPART: “Many of your groceries are really just groundwater in disguise”, by Willy Blackmore, 30 June 2015.

TIME Magazine: “How draining global groundwater supplies could harm the food supply”, by Justin Worland, 30 June 2015.

Smithsonian Magazine: “Here’s how U.S. groundwater travels the globe via food”, by Sarah Zielinski, 29 June 2015.

NPR Illinois: “Illinois is nation’s biggest center for food transport”, by Jamey Dunn, 1 February 2015.

Science World Report: “Illinois critical hub for food security: transportation infrastructure helps”, by Kathleen Lees, 18 December 2014.

Smithsonian Magazine: “Ancient Roman Water Networks Made the Empire Vulnerable”, by Francie Diep, 19 December 2014.

INFORM Magazine: “Ideas that hold water”, by Laura Cassiday, Vol 25, Issue 9, October 2014.

Professional Service & Leadership

Proposer, Special Issue

Water Resources Research ‘Spatial and temporal dynamics of coupled human-water systems’ 2017

Panel service,

National Science Foundation, National Research Traineeship Program 2017

National Defense Science & Engineering Graduate Fellowship 2017

National Science Foundation, Environmental Engineering CAREER 2015

National Science Foundation, Graduate Research Fellowship 2015

National Science Foundation, Polar Symposium 2014

Chair,

AGU Fall Meeting, Session “OS11A. Measuring and Modeling the Anthropocene” 2016

AGU Fall Meeting, Session “H32C. Food, Energy & Water Nexus: Synergies & Tradeoffs” 2016

AGU Fall Meeting, Session “H002. Food Security in the Water-Food-Energy Nexus” 2015

AGU Fall Meeting, Session “H41L. Water Footprint Assessment I” 2014

AGU Fall Meeting, Session “GC11C. Climate Change, Food, and Water I” 2011

Convener,

CUAHSI Biennial Conference, Session “Water-Food Nexus” 2018

AGU Fall Meeting, Session “OS002. Linking science and human impacts” 2016

AGU Fall Meeting, Session “H116. Water Footprint Assessment” 2015

AGU Fall Meeting, Session “H002. Food Security in the Water-Food-Energy Nexus” 2015

EGU General Assembly, Session “HS5.12. Water Footprint Assessment” 2015

AGU Fall Meeting, Session “H41L. Water Footprint Assessment” 2014

AGU Fall Meeting, Session “H82. Trade and the Environment” 2012

AGU Fall Meeting, Session “H68. Water, Food, and Trade” 2011

Member,

European Geophysical Union	2014-
Association of Environmental Engineering and Science Professors	2013-
American Geophysical Union	2009-
Princeton Energy & Climate Scholars, Princeton Environmental Institute	2011-2012
Graduate Women in Science & Engineering, Princeton University	2007-2012
Participant,	
NSF RCN Urban Sustainability, Arizona State University	2014
DISCCRS VIII Symposium	2013
Communicating Climate Change Workshop, Columbia University	2012
Short Course in Global Economic Analysis, Purdue University	2011
Short Course in Research Design for Causal Inference, Northwestern University	2011
Symposium on Network Visualization, Harvard University	2010
Student leadership,	
Manager, Princeton Reunions, Association of Princeton Graduate Alumni	2010
Representative, Princeton Graduate Engineering Council	2009-2011
Organizer, Civil & Environmental Engineering Seminar, Princeton University	2008-2009
Environment Chair, Hertford College, University of Oxford	2004
Reviewer,	
Nature, Proceedings of the National Academy of Sciences, Environmental Research Letters (3), Water Resources Research, Environmental Science & Technology, Global Environmental Change, Water Resources Economics, Advances in Water Resources (2), Review of Geophysics, Resources, Conservation & Recycling	2017
Environmental Science & Technology, Advances in Water Resources, Global Environmental Change, Nature Communications, Science of the Total Environment, Earth System Dynamics	2016
Environmental Research Letters, Advances in Water Resources (2), Water Resources Research (4), Sustainability, Water Resources Planning & Management	2015
Proceedings of the National Academy of Sciences, Environmental Science & Technology, Water Resources Research, Water Resources Planning and Management, World Development, Water, Journal of Industrial Ecology	2014
Geophysical Research Letters, Global Environmental Change, Water Resources Research, PLOS One, Hydrology & Earth System Sciences (3), Climate Research	2013
Proceedings of the National Academy of Sciences, Land Use Policy	2012
Journal of Geophysical Research	2011

Outreach

Faculty lead,	
Girls Adventures in Mathematics, Engineering, & Science (GAMES) camp	2017
Girls Adventures in Mathematics, Engineering, & Science (GAMES) camp	2016
Girls Adventures in Mathematics, Engineering, & Science (GAMES) camp	2015

Industry Experience

Sustainability Intern, Environmental Law & Policy Center, Chicago	2007
Researcher and Writer, Global Water Intelligence, Oxford	2006
Science Policy Intern, Institute for Public Policy Research, London	2005
Environmental Scientist, United States Army Corps of Engineers, Chicago	2002-2004
Environmental Science Intern, Northern Environmental Technologies, Chicago	2000

Students

PhD students

Paul Ruess (current)
Nicole Jackson (current)
Qian Dang (2018; Data Scientist at Facebook)

Xiaowen Lin (2018; Data Scientist at Rubrik)
Landon Marston (2017; Faculty at Kansas State University)

MS students

Rachel von Gnechten (current)
Sajani Gumidyala (current)
Qian Dang (2015; PhD student in Konar Group)

PhD committees

Chris Chini (current)
Erhu Du (2017)
Alison Goodwell (2017)
Xiao Zheng (2014)

Undergraduate researchers

Rayan Abi Fadel (2018)
Jacob Povlich (2018)
Ammar Elmajdoub (2017)
Yazen Kashlan (2017)
Zoe Ao (2016)
Sajani Gumidyala (2015-2016)
Joseph Chang (2015-2016)
Namrata Logishetty (2015)
J. Grant Wingo (2015)
Jimmy Chang (2014)
Kevin Kho (2014)