

## NICHOLAS BROZOVIĆ

### Professional Preparation

Oxford University	Geology	B.A., 1993
University of Southern California	Geological Sciences	M.S., 1996
University of California, Berkeley	Agricultural & Resource Economics	M.S., 2000
University of California, Berkeley	Agricultural & Resource Economics	Ph.D., 2002
University of California, Berkeley	Agricultural & Resource Economics	Postdoc, 2003

### Appointments

2014 – present	Director of Policy, Daugherty Water for Food Global Institute, University of Nebraska <i>Apportionment: 50% Administrative, 35% Research, 15% Teaching</i>
2018 – present	Professor, Agricultural Economics, University of Nebraska-Lincoln
2014 – 2018	Associate Professor, Agricultural Economics, University of Nebraska-Lincoln
2012 – 2013	Visitor, Civil & Environmental Engineering, Imperial College, London, UK
2011 – 2014	Associate Professor, Agricultural & Consumer Economics, University of Illinois
2003 – 2011	Assistant Professor, Agricultural & Consumer Economics, University of Illinois

### Selected Activities and Recognitions

#### *University Administrative Experience*

- Lead policy and entrepreneurship programs of the Daugherty Water for Food Global Institute (DWFI), including oversight and mentoring of staff, student interns, and postdoctoral researchers.
- Convene, facilitate, and manage collaborative multidisciplinary and international engagement on water resource management with staff, faculty, students, and university partners and external partners in profit, non-profit, government and multilateral institutions.
- Plan and implement institute's strategic and sustainability goals as part of DWFI leadership team.

#### *Other Administrative Experience*

- Former chair of the W2190 USDA Multistate Research Committee (2010-2011; previously also Vice-Chair and Secretary), *Water Policy and Management Challenges in the West*, with a goal of facilitating collaborative multidisciplinary, multistate research on water resource management.
- Board member (*ex officio* 2013-2015, full 2015-2021), *International Arid Lands Consortium*, a multinational, multi-institution group that facilitates interdisciplinary research and applied collaborations in arid lands.
- Member, External Advisory Board, *Wells Fargo Innovation Incubator* (2018-present).
- Member, core group, *Groundwater Solutions Initiative for Policy and Practice* (GRIPP), a multinational group that synthesizes and translates lessons learned on technology and governance for groundwater management (2017-present).
- Co-founder and scientific advisor of a startup company (*Mammoth Water*) that develops and implements environmental markets in complex regulatory regimes (2014-2021).

#### *Editorial Activities*

Associate Editor, *Water Resources Research*, 2010-2014; Editorial Board, *Water Economics and Policy*, 2013-2018; Editorial Board, *Water Security*, 2016-2021; Guest Editor, *Hydrogeology Journal*, 2012 Special Issue.

### **Journal Articles (last 5 years)**

- Rimsaite, R., Gibson, J., and Brozović, N., 2021, Informing drought mitigation policy by estimating the value of water for crop production, *Environmental Research Communications*, v. 3 (4), 041004.
- Young, R., Foster, T., Mieno, T., Valocchi, A., and Brozović, N., 2021, Hydrologic-economic trade-offs in groundwater allocation policy design, *Water Resources Research*, v. 57 (1), e2020WR027941.
- Foster, T., Mieno, T., and Brozović, N., 2020, Satellite-based monitoring of irrigation water use: Assessing measurement errors and their implications for agricultural water management policy, *Water Resources Research*, v. 56 (11), e2020WR028378.
- Garrick, D., Iseman, T., Gilson, G., Brozović, N., O'Donnell, E., Matthews, N., Miralles-Wilhelm, F., Wight, C., and Young, W., 2020, Scalable solutions to freshwater scarcity: Advancing theories of change to incentivise sustainable water use, *Water Security*, v. 9, 100055.
- Rad, M.R., Brozović, N., Foster, T., and Mieno, T., 2020, Effects of instantaneous groundwater availability on irrigated agriculture and implications for aquifer management, *Resource and Energy Economics*, v. 59, 101129.
- Riley, D., Mieno, T., Schoengold, K., and Brozović, N., 2019, The impact of land cover on groundwater recharge in the High Plains: An application to the Conservation Reserve Program, *Science of The Total Environment*, v. 696, 133871.
- Foster, T., Gonçalves, I.Z., Campos, I., Neale, C.M.U., and Brozović, N., 2019, Assessing landscape scale heterogeneity in irrigation water use with remote sensing and in-situ monitoring, *Environmental Research Letters*, DOI: 10.1088/1748-9326/aaf2be.
- O'Keeffe, J., Moulds, S., Bergin, E., Brozović, N., Mijic, A., and Buytaert, W., 2018, Including farmer irrigation behavior in a socio-hydrological modelling framework with application in north India, *Water Resources Research*, DOI: 10.1029/2018WR023038.
- Forbes, C.T., Brozović, N., Franz, T., Lally, D., and Petitt, D., 2018, Water in Society: An interdisciplinary course to support undergraduate students' water literacy, *Journal of College Science Teaching*, v. 48 (1), 36-42.
- Foster, T. and Brozović, N., 2018, Simulating crop-water production functions using crop growth models to support water policy assessments, *Ecological Economics*, v. 152, 9-21, DOI: 10.1016/j.ecolecon.2018.05.019.
- Schoengold, K. and Brozović, N., 2018, The future of groundwater management in Nebraska and the High Plains: Evolving institutions, aquifers, and regulations, *Western Economic Forum Journal*, v. 16 (1), 47-53.
- Du, E., Cai, X., Brozović, N., and Minsker, B., 2017, Evaluating the impacts of farmers' behaviors on a hypothetical agricultural water market based on double auction, *Water Resources Research*, DOI: 10.1002/2016WR020287.
- Foster, T., Brozović, N., and Speir, C., 2017, The buffer value of groundwater when well yield is limited, *Journal of Hydrology*, DOI: 10.1016/j.jhydrol.2017.02.034.
- Foster, T., Brozović, N., Butler, A.P., Neale, C., Raes, D., Steduto, P., Fereres, E., and Hsiao, T.C., 2017, AquaCrop-OS: An open source version of FAO's crop water productivity model, *Agricultural Water Management*, v. 181, 18-22, DOI: 10.1016/j.agwat.2016.11.015.

### **Book Chapters and Reports (last 5 years)**

- Powers, C.A., Flyr, B., Winter, J., Gibson, K., and Brozović, N., 2021, Intentional infiltration using irrigation canals to sustain Central Platte River ecology and irrigation, in Zheng, Y., Ross, A., Villholth, K.G., and Dillon, P. (eds.), *Managing Aquifer Recharge: A Showcase for Resilience and Sustainability*, UNESCO, Paris, 379 p.

- Young, R., and Brozović, N., 2021, *Rapid Scoping for Water Market Readiness: Guidelines and a toolkit for water transfers*, Daugherty Water for Food Global Institute/Mammoth Water, 19 p.
- Garrick, D., O'Donnell, E., Moore, M.S., Brozović, N., and Iseman, T., 2019, *Informal water markets in an urbanising world: Some unanswered questions*, World Bank, Washington DC, 47 p.
- Young, R., and Brozović, N., 2019, *Agricultural water transfers in the Western United States*, Daugherty Water for Food Global Institute/Mammoth Trading, 22 p.
- Babbitt, C., Gibson, K., Sellers, S., Brozović, N., Saracino, A., Hayden, A., Hall, M., and Zellmer, S., 2018, *The Future of Groundwater in California: Lessons in Sustainable Management from Across the West*, Environmental Defense Fund/Daugherty Water for Food Global Institute, 120 p.
- Babbitt, C., Hall, M., Hayden, A., Briones, A., Young, R., and Brozović, N., 2017, *Groundwater Trading as a Tool for Implementing California's Sustainable Groundwater Management Act*, Environmental Defense Fund/Mammoth Trading, 16 p.
- Polzkill, S., Stejskal, A., Wilke, H., Wistrom, A., Gibson, K., Spiels, M., and Brozović, N., 2017, *Paid to Pump: How a tax credit could discourage conservation of the High Plains Aquifer*, Daugherty Water for Food Global Institute Policy Brief, 4 p.

### **Selected Grants and Contracts (last 5 years)**

- Assessment of Water Markets, N. Brozović, R. Rimsaite, A. Chandra, Bayer, \$47,400, 2021.
- Economics-Related Assistance for Water Resource Projects, R. Rimsaite, N. Brozović, M. Svoboda, *Headwaters Corporation*, \$24,206, 2021.
- Promoting Sustainability and Resilience of Smallholder Irrigation Impacts in Sub-Saharan Africa, N. Brozović, *International Fund for Agricultural Development*, \$1,000,000, 2020-2023.
- Strengthening Agtech Entrepreneurship in the Midwest in Response to COVID-19, N. Brozović (PI), K. Gibson, *Wells Fargo-Innovation Incubator IN2*, \$50,000, 2020-2021.
- Understanding real-time irrigation behavior to improve energy efficiency in agriculture, N. Brozović (PI), T. Mieno, K. Schoengold, *Nebraska Center for Energy Sciences Research*, \$83,800, 2019-2020.
- Wells Fargo Innovation Incubator, Brozović, N., *Alliance for Sustainable Energy*, \$15,000, 2018.
- Market-Based Approaches to Drought Management, McCornick, P. (PI), Brozović, N., Nance, M., *USDA-Office of the Chief Economist*, \$50,000, 2018-2019.
- Contaminant Sensing and Field Data Platform, S. Ndao (PI), R. Lai, N. Brozović, *Nebraska Department of Economic Development*, \$201,657, 2018-2019.
- Developing a Platform to Monitor N Footprint in Agro-Ecosystems, P. Grassini (PI), N. Brozović, J. Rattalino, K. Gibson, *USDA-NIFA Agriculture and Food Research Initiative*, \$431,197, 2018-2020.
- Governing groundwater sustainably: Nebraska's 50-year experiment, N. Brozović (PI), K. Gibson, *World Bank*, \$25,000, 2017.
- Market-Based Approaches to Drought Management, N. Brozović, *USDA-Office of the Chief Economist*, \$200,000, 2017-2018.
- Water Education Leaders for Secondary Science, C. Forbes (PI), N. Brozovic, J. Griffin, *Nebraska Coordinating Commission for Postsecondary Education, Improving Teacher Quality grant*, \$62,000, 2017-2018.
- Water Education Leaders for Secondary Science, C. Forbes (PI), N. Brozovic, J. Griffin, *USDA-NIFA*, \$144,500, 2016-2019.
- The state of informal agricultural water trading in the American West, Brozović, N., *USDA-Office of the Chief Economist*, \$40,150, 2016-2017.
- IUSE: Fostering Undergraduate Students' Disciplinary Learning and Water Literacy, C. Forbes (PI), N. Brozovic, T. Franz, *National Science Foundation*, \$299,018, 2016-2019.