

ROBERT R. HEARNE
CURRICULUM VITAE

CURRENT POSITION Professor
Department of Agribusiness and Applied Economics (since 2002)
North Dakota State University
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EDUCATION

Ph.D. Agricultural and Applied Economics, University of Minnesota, St. Paul, Mn. U.S.A. (1995)

Thesis research on Efficiency of Market Allocation of Water-Use Rights in Chile.
Supporting Field in Economics

Fields of Specialization

Natural Resource and Environmental Economics
Development and Trade Economics
Economics of Public Policy

M.S. Agricultural Economics, University of Kentucky, Lexington, Ky., U.S.A. (1988)

Thesis research on learning by doing in non-traditional crop production.

B.A. Georgetown University, Washington, D.C. (1980)
Major: Economics
Minor: Government

PROFESSIONAL EXPERIENCE

North Dakota State University Department of Agribusiness and Applied Economics (2002 – present)
Professor, Associate, and Assistant Professor

Conducting research on the economic analysis of emerging environmental and resource issues. Teaching responsibilities include Environmental and Resource Economics at the Undergraduate and Graduate levels as well as an M.S. class in Microeconomic Theory. Chair of Graduate Program Committee responsible for recruitment, admissions, and curricula for M.S. program, 2003-2006, 2010-2014. Chair of the Undergraduate Program Committee responsible for recruitment and curricula for B.S. and B.A. programs, 2007-2008, 2017-2018. Member Faculty Senate 2008-2009, 2016-2018.

Kasetsart University Bangkok Thailand (2009-2010)
Visiting Fulbright Scholar

Taught Microeconomics, Water Economics, and Environmental Economics and conducting research on environmental management in Thailand.

Tropical Agriculture Research and Higher Education Institute (CATIE) Turrialba, Costa Rica.
Assistant Professor. (1998-2001)

Developed research programs in the economic valuation of environmental resources, analysis of resource utilization policies, and analyses of alternative land and water use systems. Taught Spanish language M.S. classes in *Microeconomic Theory* and *Environmental Economics*. As Academic Coordinator of CATIE's M.S. program in Environmental Economics responsible for the academic training of graduate students with major and minor degrees. Coordinated CATIE-Sida-EEU Agreement on Support to Capacity Building in Environmental Economics in Central America.

International Institute for Environment and Development. (I.I.E.D.) London, U.K.
Research Associate. Environmental Economics Programme. (1995-1998)

Conducted economic analysis of environmental issues in developing countries. Developed project proposals for donor funding. Implemented collaborative research projects with interdisciplinary and multi-institutional teams. Projects included: analyses of water policies, forest policies, private sector participation in water supply and sanitation, and development aid policies; valuation of mangrove resources; and a review of valuation methodologies.

Macalester College. St. Paul, Mn.. *Visiting Instructor.* Department of Economics. (1995)

Taught Course in Environmental and Natural Resource Economics. Prepared and presented lectures and other learning materials and evaluated students.

Metropolitan State University. Minneapolis, Mn. *Community Faculty.* (1995)

Taught introductory level courses in economic theory. Prepared and presented lectures and other learning materials and evaluated students.

University of Minnesota. St. Paul, Mn. *Research Assistant.*
Department of Applied Economics. (1990-1991, 1994)

Conducted research on water allocation institutions, water markets, the value of water in alternative uses, transactions costs, and market allocation of water-use rights in Chile. Reviewed global literature on water allocation institutions. Analyzed data on water market transactions and calculated economic and financial benefits to buyers and sellers. Prepared technical papers for the World Bank and articles for scientific journals.

The World Bank. Santiago, Chile. *Consultant.* Agricultural Policies Division. (1993-1994)

Established cooperation with Chilean academics, government officials, businessmen, and farmers in study of water markets. Developed survey instrument and data collection procedures. Led team of Chilean economists and agronomists in collecting primary data on market transactions of water in four Chilean valleys. Interviewed principal industrial users of water, government officials, leaders of water users associations, and professional water managers.

The World Bank. Washington, D.C. *Consultant*. Agricultural Policies Division. (1992-1993)

Contributed significantly to the development of The World Bank's Water Resources Management Policy Paper. Reviewed and analyzed World Bank's experience in investments in water resources. Prepared sections of World Bank reports. Developed project to analyze water-use rights markets in Chile. Reviewed literature on water markets, property rights, transactions costs, and the economic value of water in different uses.

Los Alamos National Laboratory. Los Alamos, New Mexico. *Graduate Research Assistant*. (1988-1989)

Supported energy planning programs in four Central American countries. Trained Central American planners in the economic and financial appraisal of development projects. Prepared workshop for training and evaluation of energy planning efforts. With Honduran energy planners, developed econometric model to predict Honduran energy demand.

University of Kentucky. Lexington, KY. *Research Assistant*.

Department of Agricultural Economics.

(1986-1988)

Conducted thesis research on improvement of yields of non-traditional crops. Developed conceptual framework for assessing learning-by-doing among vegetable farmers. Gathered and analyzed data from farmers cooperatives. Prepared research reports. Conducted interviews, of manufacturing firm officers, for study of rural employment. Trained enumerators.

U.S. Department of Labor. Philadelphia, Pa., U.S.A. *Economist*

Bureau of Labor Statistics.

(1985)

Gathered data for employment and wage statistics. Interviewed personnel officers and assured data quality.

U.S. Peace Corps, Botswana. *Work-Relief Project Technical Officer*.

(1983-1984)

Administered numerous labor intensive relief projects as part of the government's drought-relief program. Developed project proposals and budgets for drought-relief efforts in sixteen villages. Coordinated purchase and delivery of supplies, payments, supervision, and technical support. Responsible for the successful completion of permanent and useful community projects. Prepared monitoring and evaluation reports. Supported district drought-relief and development committees in emergency relief efforts. Assisted with development of community water projects.

U.S. Peace Corps, Honduras. *Small Business Advisor*.

(1981-1983)

Initiated and trained peasant farmers in the use of product and cash controls for their regional agroforestry cooperative. Advised cooperative officers and staff in management and accountancy procedures. Initiated enterprise of pine cone seed collection. Supported efforts of Honduran National Forestry Corporation's Community Forestry Program. Taught English as a second language to Honduran secondary and business students.

FUNDED GRANTS

Principle Investigator. 2005. National Institute for Water Resources and United States Geological Survey. "Assessing the Effectiveness of Local Water Institutions in Water Management and Water Quality Protection." Federal Funds \$150,392, State Funds \$150,393.

Principle Investigator. 2014. North Central Regional Center for Rural Development. "Assessing Strategies for Water Supply in the Bakken Region" \$14,395

AWARDS and SERVICE

Faculty Fellow, Challey Institute for Global Innovation & Growth 2019- present

Traditional Fulbright Grant. 2009. Strengthening Environmental Economics and Assessing Environmental Services Payments in Thailand.

Associate Editor 2019 - present *Journal of Water Resources Planning and Management*

Book Review Editor 2015. *Journal of Natural Resources Policy Research*

PUBLICATIONS

Articles in Refereed Scientific Journals

Wickramage, H. M., Roberts, D. C., & Hearne, R. R. 2020. Water Allocation Using the Bankruptcy Model: A Case Study of the Missouri River. *Water*, 12(3), 61

Fernando, F. and R. Hearne. 2017. "Housing for Essential Service Workers during an Oil Boom: Opportunities and Policy Implications." *Journal of Housing and the Built Environment*. DOI 10.1007/s10901-016-9539-9. 32(4):755-786.

Hearne, R. and F. Fernando. 2016. "Strategies for Community and Industry Water Management in the Oil Producing Region of North Dakota" *Water* 2016, 8, 331; doi:10.3390/w8080331

Hearne, R. and T. Prato. 2016. "Institutional Evolution of Missouri River Management." *Water Policy*. 18 (3) 619-634.

Wachenheim, C., S. Hovde, R. Hearne, and W. Njanje. 2015. "Identifying Market Preferences for High Selenium Beef." *Journal of Food Distribution Research*. 46(3): 50-67.

Choi, J., R.R. Hearne, K. Lee, and D.C. Roberts. 2015. "The Relation between Water Pollution and Economic Growth Using the Environmental Kuznets Curve: A Case Study in South Korea." *Water International* 40(3):499-512.

Hearne, R. S. Shakya, and Q. Yin. 2015. "The value of fracking wastewater treatment and recycling technologies in North Dakota." *Journal of Water Reuse and Desalination* 5(2):211-222.

Hearne, R. 2011. "Chile's Water Markets Continue to Evolve." *Water Resources Impact*. 13(5): 12-14.

Hearne, R. and E. Biénebe. 2010. "The Use of Choice Experiments in Developing Countries: The Central American Experience." *Panorama Socioeconómico*. 40:104-115.

- Hearne, R. and D. Torpen. 2010. "Stakeholder Preferences for Water Management Alternatives in the Red River Basin." *Water International* . 36(2):150-164.
- Hearne, R. and C. Kritsky. 2010. "Characteristics of Active Local Water Management Districts In the Red River Basin." *Water Policy*. 12:898-912.
- Hearne, R. and S. Tuscherer. 2008. "Stated Preferences for Standing Rock Sioux Indian Reservation Ecotourism Alternatives" *Great Plains Research*. 18:131-142.
- Ndiva Mongoh M, Dyer N W, Stoltenow C L, Hearne R., Khaita M L. 2008. 'A Review of Management Practices for the Control of Anthrax in Animals: The 2005 anthrax Outbreak in North Dakota - Case Study.' *Zoonoses and Public Health*, 55:275-290.
- Ndiva Mongoh M., R. Hearne, and M. Khaita. 2008.. "Private and public economic incentives for the control of animal diseases: the case of anthrax in livestock." *Transboundary and Emerging Diseases*. 55:319-328.
- Nganje, W., R. Hearne, C. Gustafson, and M. Orth. 2008. "Farmers' Preferences for Alternative Crop and Health Insurance Subsidies." *Review of Agricultural Economics*. 30(2) 311-332.
- Ndiva Mongoh M., R. Hearne, N. Dyer, and M. Khaita. 2008. "The Financial Impact of West Nile virus Infection in horses in the North Dakota Horse Industry." *Tropical Animal Health and Production*. 40:69-76. DOI 10.1007/311250-007-9055-8.
- Hearne, R. 2007. "Water Markets as a Mechanism for Intersectoral Water Transfers: The Elqui Basin in Chile." *Paddy and Water Environment*. 5:223-227.
- Hearne, R. 2007. "Evolving Water Management Institutions in the Red River Basin." *Environmental Management*. 40(6):842-852.
- Biénebe, E. and R. Hearne. 2006. "Public Preferences For Biodiversity Conservation and Scenic Beauty Within A Framework Of Environmental Services Payments." *Forest Policy and Economics* 9(4):335-348.
- Hearne, R. and M. Volcan. 2005. "The Use of Choice Experiments to Analyze Consumer Preferences for Ecolabeled and Organic Produce in Costa Rica". *Quarterly Journal of International Agriculture* 44 (4): 381-397.
- Hearne, R. and C. A. Santos. 2005. "Tourists' and Locals' Preferences toward Ecotourism Development in the Maya Biosphere Reserve, Guatemala." *Environment, Development, and Sustainability*. 7(3):305-318
- Hearne, R. and G. Donoso. 2005. "Water Institutional Reforms in Chile." *Water Policy*. 7(1):53-70.
- Hearne, R. 2004. "Evolving Water Management Institutions in Mexico." *Water Resources Research*, 40(12) W12S04. December 2004.
- Hearne, R. and Z. Salinas. 2002. "The Use of Choice Experiments in the Analysis of Tourist Preferences for Ecotourism Development in Costa Rica". *Journal of Environmental Management* 65(2):153-163.
- Ramírez, O., S Shultz, R. Hearne, and M. Gomez. 2000. "Conteo de Poisson: Modelos econométricos para explicar la adopción de tecnologías agrícolas por pequeños productores en Centroamérica" *Revista Forestal Centroamericano*. Vol 32. pp. 13-19.

- Salinas, Z. and R. Hearne. 2000. "Aplicación del método de experimentos de selección para analizar las preferencias de los turistas". *Revista Forestal Centroamericana*. Vol 30 pp. 46-50.
- Johnstone, N. L. Wood. and R. Hearne. 1999. "Private Sector Participation in Urban Water and Sanitation: Realizing Social and Environmental Objectives in Developing Countries". *Natural Resources Forum*, Vol. 23, 1999, pp. 287-302.
- Hearne, R. and K.W. Easter. 1997. "The Economic and Financial Gains from Water Markets in Chile." *Agricultural Economics*. 15:187-199.
- Hearne, R. 1996. Economic Valuation of Use and Non-Use Values on Environmental Goods and Services in Developing Countries. *Project Appraisal*. 11(4):255-260.
- Easter, K.W. and R. Hearne. 1995. "Water Markets and Decentralized Water Resources Management: International Problems and Opportunities." *Water Resources Bulletin*. 31:9-20.

Book Chapters in Edited Volumes

- Hearne, R. 2018. Water Markets. In *Water Policy in Chile*. G. Donoso Ed. Springer.
- Fernando, F., A. Junod, J. Jacquet, R. Hearne, L. Flage. 2018. "Housing Challenges and Policy Implications of Shale Oil Development in Rural Communities" in *Rural Housing and Economic Development*. Don Albrecht, Scott Loveridge, Stephan Goetz, and Rachel Welborn eds. Routledge.
- Hearne, R. and G. Donoso. 2014. Water Markets in Chile: Are they Meeting Needs. In *Water Markets in the 21st Century*. K.W. Easter and Q.Q. Huang Editors. Dordrecht. Springer.
- Brandson, N. and R. Hearne. 2013. Devils Lake and Red River Basin. Chapter 9 in *Water Without Borders? Canada, the U.S., and Transboundary Waters*. Emma S. Norman ed. University of Toronto Press. Toronto.
- Hearne, R., B. Barbier, and J. Gonzalez. 2006. "Small-Scale Agroindustry and the Environment: Coffee Processing in Honduras." In *Small Firms and the Environment in Developing Countries* Allen Blackman ed. Resources for the Future Press. Washington, D.C.
- Easter, K.W., and R. Hearne. 2001. "Water Markets, Water Rights and Strategies for Decentralizing Water Management. In *Management of Shared Groundwater Resources: The Israeli-Palestinian Case with an International Perspective*. E. Feitelson and M. Haddad eds. Springer Science+Business Media. New York.
- Johnstone, N., R. Hearne, and L. Wood 2001. "Regulation of Social and Environmental Concerns with Increased Private Sector Participation in the Provision of Water and Sanitation" in *Private Firms and Public Water: Realising Social and Environmental Objectives in Developing Countries*. N. Johnstone and L. Wood eds. Edward Elgar. Cheltenham. U.K.
- Hearne, R. 1998. "Institutional and Organizational Arrangements for Water Markets in Chile" in *Markets for Water: Potential and Performance*. A. Dinar, K.W. Easter, and M. Rosegrant eds. Kluwer. Boston
- Hearne, R. and K.W. Easter. 1998. "Economic and Financial Returns from Chile's Water Markets" in *Markets for Water: Potential and Performance*. A. Dinar, K.W. Easter, and M. Rosegrant eds. Kluwer. Boston

Hearne, R. 1998. "Opportunities and Constraints to Improved Water Markets in Mexico" in *Markets for Water: Potential and Performance*. A. Dinar, K.W. Easter, and M. Rosegrant eds. Kluwer. Boston

Refereed Publications

Torpen D. and R. Hearne. 2008. "Stakeholder Preferences for Water Management Alternatives in the Red River Basin." *Agribusiness and Applied Economics Report N0. 639*. Department of Agribusiness and Applied Economics. North Dakota State University. April, 2008.

Hearne, R. and S. Tuscherer 2007. "Stated Preferences for Ecotourism Alternatives On the Standing Rock Sioux Indian Reservation." *Agribusiness and Applied Economics Report No. 601*. Department of Agribusiness and Applied Economics. North Dakota State University. June 2007

Johnstone, N. L. Wood, and R. Hearne. 1999. *The Regulation of Private Sector Participation in Urban Water and Sanitation: Realizing Social and Environmental Objectives in Developing Countries*. (with Nick Johnstone and Libby Wood) Discussion Paper 99-01. Environmental Economics Programme. IIED. London.

Bass, S. and R. Hearne. 1997. *Private Sector Forestry: A Review of Instruments for Improving its Sustainability*. Forest and Land Use Series No 11. IIED. London.

Hearne, R. and J. Trava. 1997. *Water Markets In Mexico: Opportunities and Constraints*. Discussion Paper 97-01. Environmental Economics Programme. IIED London.

Hearne, R. 1996. *A Review of Economic Appraisal of Environmental Goods and Services With a Focus on Developing Countries*. Discussion Paper 96-03. Environmental Economics Programme. IIED London.

Hearne, R. and K. W. Easter. 1995. *Water Allocation and Water Markets: An Analysis of Gains-From-Trade in Chile*. (with K.W. Easter) World Bank Technical Paper #315. The World Bank.

Easter, K. W. and Hearne, R. 1993. *Decentralizing Water Resources Management: Economic Incentives, Accountability, and Assurance*. (with K.W. Easter) Policy Research Working Paper 1219. Agricultural Policies Division. The World Bank.

Chapters in Edited Conference Proceedings

Hearne, R. 2001. "Necesidades para Investigación en el Desarrollo de Pagos por Servicios Ambientales". proceedings from II Foro Regional: Pago por Servicios Ambientales: Experiencias Replicables en América Central. PASOLAC 25-27 April, 2001. Montelimar, Nicaragua.

Hearne, R. 2001. "Bases Económicas para Pagos por Danos Ambientales" proceedings from "Seminario Sobre Daño Ambiental" Procuraduría General de la Republica. November 1999 and March 2000. San José. Costa Rica.

Hearne, R. 2000. "Bases Económicas para una Política de Pagos por Servicios Ambientales" proceedings from Foro Regional: Pago por Servicios Ambientales con Énfasis en Agricultura Sostenible de Laderas" PASOLAC, 27-29 October 1999. San Salvador.

Johnstone, N. and R. Hearne. 1998. *Private Sector Participation in Urban Water and Sanitation: Realizing Social and Environmental Objectives*. Proceedings of the Workshop on Private Sector Participation in Water Supply and Sanitation: Realizing Social and Environmental Objectives. London. November. 26 1998.

Easter, K. W. and R. Hearne. 1995 "Water Markets, Water Rights, and Strategies for Decentralizing Water Management". in *Joint Management of Shared Aquifers*. proceedings of workshop Nov.27 - Dec 1, 1994. M. Haddad and E. Feitelson eds. The Palestine Consultancy Group and The Harry S Truman Research Institute for the Advancement of Peace, Jerusalem.

Book Reviews

Hearne, R. 2014. Review of "Integrating Agriculture, Conservation and Ecotourism: Societal Influences. Edited by W. Bruce Campbell and Silvia López Ortíz. New York: Springer, 2014. *Great Plains Research*. 24(2): 213

Hearne, R. 2009. Review of "Emerging Markets for Ecosystem Services: A Case Study of the Panama Canal Watershed" by Gentry, B., Q. Newcomer, S. Anisfeld, M. Fotos, editors. 2007. *American Journal of Agricultural Economics*. 91(3):855-857.

Hearne, R. 2009. Review of "Frontiers in Resource and Rural Economics: Human-Nature, Rural-Urban Interdependencies" by JunJie Wu, Paul Barkley, and Bruce Weber (eds.) Resources for the Future Press, 2008. *Journal of Natural Resources Policy Research* 1(2): 205–09.

Hearne R. 2004. Review of "Understanding Water and Terrorism", by H. Curt Young, BurgYoung Publishing, Denver, CO; 2003. *Journal of American Water Resources Association*, December, 2004.

Easter, K. W. and R. Hearne. 1995. Review of "Groundwater Markets and Irrigation Development: Political Economy and Practical Policy" by Tushaar Shah. (with K.W. Easter) *Land Economics*. 71:265-268.

Edition

Dixon, J., L. Fallon, R. Carpenter, and P. Sherman. 1999. *Análisis Económico de Impactos Ambientales: Edición Latinoamericano* (coeditors of Latin American Edition R Hearne and M. Piedra). CATIE, Turrialba, Costa Rica

Other Publications

Girt, J., R. Hearne, H. Kieft, and M. van der Lubbe. 1998. *Integrating Environmental Costs and Benefits in Fertilizer Policy*. Report Presented to DGIS Netherlands.

Hearne, R. 1995. *The Market Allocation of Natural Resources: Transactions of Water-Use Rights in Chile*. Ph.D. Dissertation. Department of Agricultural and Applied Economics. University of Minnesota. June 1995.

Hearne, R. 1988. The Dynamic Elements of Yield and Price Probability Distributions: Individual and Group Learning in Tomato Production. M.S. Thesis. Department of Agricultural Economics. University of Kentucky.

PRESENTATIONS

2019 The Effect of International Conflict on Container Ports' Efficiency in the Middle East: Using DEA (with Mohammed Alshareef and Joseph Szmerekovsky, presented by Alshareef) Poster Presented at 60th Annual Transportation Research Forum April 2019, Washington DC.

- 2018 The Value of Missouri River Water in its Navigation Channel and Freight Costs. (with M. Alshareef, presented by Alshareef) Poster Presented at 59th Annual Transportation Research Forum April 2018 Minneapolis.
- 2016 Community Strategies for Water Supply in the Bakken Region (with Felix Fernando) Presented at the Facing New Conditions and Challenges: The Agricultural Development in USA and China, Conference South China Agricultural University Guangzhou, China July 8-10, 2016.
- 2016 Effects of inundation and flood risk on the value of agricultural lands in the Devil's Lake Basin of North Dakota (with Daniel Margarit and David Roberts). Presented at the W3133 Annual Meeting, Portland. February 24, 2016.
- 2016 Community Strategies for Water Supply in the Bakken Region. (with Felix Fernando). Presented in a webinar sponsored by the North Central Regional Center for Rural Development. January 21 2016.
- 2015 Assessing the Value of Public Lands in Western North Dakota in Community Land Trusts. (with Felix Fernando). Presented at the W3133 Annual Meeting, Pensacola Fl. February 26, 2015.
- 2014 Estimating the Environmental Kuznets Curve for Water Pollution: An Empirical Analysis in South Korea (with Choi, J., R. Hearne, K. Lee, and D.C. Roberts (Presenter). Selected paper, US-Korea Conference San Francisco, CA. August 6-9, 2014.
- 2013 An Assessment of Fracking Wastewater Treatment and Recycling Alternatives in Western North Dakota (Qingqing Yin and Sumadhur Shakya) Presented at the W3133 Annual Meeting, Coeur D'Aline, Id. February 28, 2013.
- 2011 Devil's Lake (with N. Brandson) Presented at the Water Without Borders workshop Vancouver B.C. May 16. 2011.
- 2010 Assessing the Efficiency of Conservation Districts Using Data Envelopment and Stochastic Frontier Analysis. (with N. DeSilva, and S. Shaik). Presented at the Environmental and Conservation Sciences Seminar. North Dakota State University. September 2010.
- 2010 Analyzing Water Management Policies in Thailand. Presented at the 2nd Mid-Year Conference for US Fulbrighters in SE Asia. Manila, Phillipines. March 2010
- 2010 Challenges in Applying Stated Choice Analysis in Developing Countries: (with case study from Central America). Presented at the College of Economics and Management Seminar. University of the Philippines Los Baños. March 2010
- 2010 Choice Experiments: Concept and Application. Presented at the Faculty of Economics Seminar. Prince of Songkla University. Hat Yai, Thailand. February 2010.
- 2009 Economic Instruments for Water Resource Management. Presented at the Faculty of Environment and Resource Studies Seminar, Mahidol University, Selaya Thailand. December 2009.
- 2009 The Use of Choice Experiments to Valuate Environmental Goods and Services in Central America. Invited Presentation at the Economy And Environment Program For Southeast Asia Biannual Meeting, Hanoi Vietnam. November 2009.
- 2009 Characteristics of Active Water Management Organizations in the Red River Basin. (with Craig Kritsky). Presented at the Department of Agricultural and Resource Economics Seminar, Kasetsart University, Bangkok Thailand. November 2009.

- 2009 Characteristics of Active Water Management Organizations in the Red River Basin. (with Craig Kritsky). Presented at the Faculty of Economics Seminar, Thammasat University, Bangkok Thailand. October 2009.
- 2009 Assessing the Efficiency of Conservation Districts Using Data Envelopment and Stochastic Frontier Analysis. (with N. DeSilva, and S. Shaik). Selected Poster Presented at the AAEA Annual Meetings, Milwaukee, WI. July, 2009. (Presented by Saleem Shaik).
2009. “The Use of Choice Experiments to Valuate Environmental Goods and Services in Central America” (with Estelle Biénabe). Presented at the IV Congreso de la Asociación Latinoamericana y del Caribe de Economistas Ambientales y de Recursos Naturales. Heredia, Costa Rica. March 2009.
2009. “The Use of Choice Experiments to Valuate Environmental Goods and Services in Central America” (with Estelle Biénabe). Presented at the W-2133 Annual Meeting, Asutin Tx. February 2009.
- 2008 “Characteristics of Active Water Management Organizations in the Red River Basin.” (with Craig Kritsky). Presented at the Environmental and Conservation Sciences Seminar. North Dakota State University. November 2008.
- 2008 “Characteristics of Active Water Management Organizations in the Red River Basin.” (with Craig Kritsky). Presented at the Western Agricultural Economics Association Annual Meeting. Big Sky, Mt. June 2008.
2008. “Lessons for Improved Local Water Management.” Presented at the North Dakota State University Extension Service Spring Extension Conference. Bismarck, ND. March 2008
- 2008 “Stakeholder Preferences for Water Management Alternatives in the Red River Basin” (with D. Torpen). Paper Presented at the W-2133 Annual Meeting Kona Hi., February 2008.
- 2007 “Private and public economic incentives for the control of animal diseases: the case of anthrax in livestock.” (with M. Ndiva Mongoh, M. Khaitsa presented by M. Ndiva Mongoh) Presented at the 88th Annual Meeting of the Conference of Research Workers in Animal Diseases. Chicago, IL, Dec.2 -4, 2007. Biosafety and Biosecurity: Abstract No.31.
- 2007 “Identifying Market Preferences for High Selenium Beef.” (with C. Wachenheim, S. Hovde, and W. Nganje, presented by C. Wachenheim) Selected Poster presented at the AAEA Annual Meetings Portland, July 2007.
- 2007 “Stated preferences for ecotourism alternatives on the Standing Rock Sioux Indian Reservation” (with Sheldon Tuscherer). Presented to the Sitting Bull College Board. June, 2007
- 2007 “Characteristics of Effective Local Water Management Organizations in the Red River Basin” (with Craig Kritsky presented by C. Kritsky) Presented at the International Water Institute Third International Water Conference- 2007. Grand Forks, ND. March, 2007
- 2007 “Assessing the Incentives for Hazardous Material Transportation.” (with M. Zimanski, and E. DeVuyst) Invited Paper Presented at the 4th International Seminar of Logistics for Agribusiness. March 2007. Piracicaba (SP), Brazil.
- 2007 “Stated preferences for ecotourism alternatives on the Standing Rock Sioux Indian Reservation.” (with S. Tuscherer). Presented at the W-1133 Annual Meeting Richmond Va. March 2007.

- 2006 “Consumer demand for high-selenium beef”. Paper presented at the WERA 072 annual meeting for 2006. (with Scott Hovde, Cheryl Wachenheim, William Nganje, and Tim Petry presented by Cheryl Wachenheim). Las Vegas, Nevada, June 18-20.
- 2006 “Interbasin Transfer to Reduce Flooding: The Case of Devils Lake, North Dakota.” Presented at the University Council on Water Resources Conference. Santa Fe, NM. July 18, 2006
- 2006 “Water Quality Monitoring Among Local Agencies in The Red River of the North Basin” (with Chalres Fritz) 2006 National Monitoring Conference. San Jose, Ca. May 10 2006.
- 2006 “Public Preference For Biodiversity Conservation And Scenic Beauty Within A Framework ” (with E Biénabe) Paper Presented at the Graduate Seminar Departamento de Economia, Administração e Sociologia ESALQ/USP. Piracicaba Brazil March 2006
- 2006 “The Use of Attitudinal Responses as Explanatory Variables in Choice Experiments.” Paper presented at the W-1133 Meeting Western Benefits and Costs Multistate Research Project Meeting San Antonio February 2006
- 2006 “Criteria and Indicators for Effective Water Management Institutions.” Paper Presented at the Red River Basin Conference. Winnipeg, Manitoba, January 12, 2006
- 2005 “A Review of Water Management Institutions in The Red River of the North Basin.” Paper presented at the W-1190, Western Water Multistate Research Project Meeting. Las Cruces, NM. October 17-19, 2005.
- 2005 “Evolving Water Management Institutions in the Red River Valley.” Paper presented at the American Water Resources Association Summer Specialty Conference. Honolulu, HI. June 27-29, 2005.
- 2005 “A Review of Water Management Institutions in the Red River of the North Basin.” Paper presented at the USGS Institutional Analysis for Environmental Decision Making Workshop. Ft. Collins, CO. January 2005
2004. “Estimating the Demand and Willingness to Pay for Whole Farm Insurance and Alternative Crop Risk Mitigation Tools” (with W. Nganje, M. Orth, and C. Gustafson, presented by W. Nganje). Paper Presented at the NC-1014 Annual Meeting, Chicago IL, October 4-5, 2004
- 2004 “An Analysis Of The Feasibility Of Irrigation District Transfer In Honduras.” (with C. Martinez). Selected Paper Presented at the American Agricultural Economics Association Annual Meeting. Denver, Co. July, 2004.
- 2004 “Using Choice Experiments to Elicit Farmers Preferences’ for Crop and Health Insurance.” (with W. Nganje, M. Orth, and C. Gustafson, presented by W. Nganje). Selected Paper Presented at the American Agricultural Economics Association Annual Meeting. Denver, Co. July, 2004.
- 2003 “Progress in Institutional Reforms in the Water Sector in Mexico.” Presented at the Learning Workshop on Water Reforms, Institutions’ Performance, Allocation, Pricing, and Resource Allocation at the 25th International Conference of Agricultural Economists. Durban, South Africa. August 2003.

- 2003 “Trade-off Between Economic Efficiency and Contamination by Coffee Processing: A Bioeconomic Model at the Watershed Level.” Selected Paper Presented at the 25th International Conference of Agricultural Economists. Durban, South Africa. August 2003. (presented by B. Barbier).
- 2002 "The Use Of Choice Experiments to Analyze Consumer Preferences for Ecolabeled And Organic Produce in Costa Rica." Presented at Departmental Seminar, Department of Agribusiness and Applied Economics. North Dakota State University. October 2002.
- 2002 “El método de ‘experimentación por selección’ como metodología de valuación de servicios ambientales derivados de ecosistemas.” Keynote presentation at the Expert’s Meeting of Economic Valuation of Environmental Goods and Services from Amazonian Forests and Agroforestry Systems. Lima Peru, September 3, 2002.
- 2002 “The Use Of Choice Experiments To Investigate Public Preferences For Biodiversity Conservation Within A Framework Of Environmental Services Payments” (with E. Motte Bienebe). Selected paper presented at the Second World Congress of Environment and Resource Economists. Monterrey California, June 2002.
- 2002 “Development of Minimum Cost, Incentive Based Plan for the Implementation of a Technology Standard for Coffee Processing in Honduras” (with Bruno Barbier and J. Gonzalez). Selected Paper Presented at the American Agricultural Economics Association Annual Meeting. Long Beach Ca. July, 2002.
- 2002 “The Use of Choice Experiments to Analyze Consumer Preferences for Organic Produce in Costa Rica” (with M. Volcan) Selected Paper Presented at the American Agricultural Economics Association Annual Meeting. Long Beach Ca. July, 2002.
- 2002 “Choice experiments: a way to investigate public preferences for biodiversity conservation within a framework of Environmental Services Payments”. Presented at the Biennial Conference of the International Society for Ecological Economics. Sousse, Tunisia, March 2002. (presented by coauthor E. Motte Biénabe)
- 2002 “The Use of Choice Experiments to Analyze Preferences for Ecotourism Development in Central America.” Presented at Departmental Seminar, Department of Agribusiness and Applied Economics. North Dakota State University. March 2002.
- 2001 “Visiones Económicas del Manejo de Aguas” Presented at The Costa Rican Electric Institute. June 7, 2001.
- 2001 “Instrumentos Económicos en el Manejo de Aguas” Presented at the Ministry of the Environment, El Salvador. June 5, 2001.
- 2001 “Visiones Económicas del Manejo de Aguas” presented at the Department of Anthropology, The University of Costa Rica. May 10, 2001.
- 2001 “Necesidades de Investigación en el Desarrollo de Pagos por Servicios Ambientales.” Principal paper presented at the II Foro Regional de Pagos por Servicios Ambientales. Montelimar, Nicaragua, April 26 2001.
- 2000 “The Use of Choice Experiments in the Analyses of Tourist Preferences in Costa Rica” (with Zenia Salinas) Selected poster presented at the American Agricultural Economics Association meeting Tampa Fl. July 2000.

- 2000 "Bases Económicas Para Políticas de Pagos por Servicios Ambientales". Presented at The Interamerican Agricultural School. Zamorano, Honduras, Taller de Economía Ambiental. Honduras, 16 March 2000, 35 participants.
- 2000 "El Uso de Métodos de Valoración de Bienes y Servicios Ambientales" Presented at The Interamerican Agricultural School. Zamorano, Honduras, Taller de Economía Ambiental en Honduras, 16 March 2000 35 participants.
- 2000 "Bases Económicas para Pagos por Danos Ambientales" Presented to Seminario-Taller Sobre Daño Ambiental. Procedería Ambiental, Costa Rica, , San José 28 March 2000. 40 participants.
- 2000 "Diseño de Políticas de Pagos por Servicios Ambientales Bajo Las Perspectivas del Mercado (y ausencia de mercados)" Presented at the Taller de Valoración de Bienes y Servicios Ambientales de los Ecosistemas Forestales de Mesoamérica Habana Cuba,15 June 2000. 35 participants.
2000. "Economía de Aguas" Presented to the Maestría en Gestión Ambiental, Universidad Centroamericana en San Salvador, 18 July 2000. 40 participants
2000. "The Use of Choice Experiments to Analyze Preferences for Protected Area Management in Central America". Presented at the Natural Resources and Environmental Economics Seminar. Department of Applied Economics, University of Minnesota, , 28 August 2000 12 participants
2000. "Bases Económicas Para Políticas de Pagos por Servicios Ambientales". Presented to the Facultad de Economía, Universidad de Panamá, Santiago, 30 October 2000. 70 participants
2000. "Bases Económicas Para Políticas de Pagos por Servicios Ambientales". Presented to the Facultad de Economía, Universidad de Panamá, Panama, 31 October 2000. 140 participants
2000. "Economía de Aguas". Presented to the Facultad de Economía, Universidad de Panamá, Panamá, 31 October 2000. 140 participants
- 1999 "Bases Económicas Para Políticas de Pagos por Servicios Ambientales" Principle paper presented to Foro Regional Pago por Servicios Ambientales con Énfasis en Agricultura Sostenible de Laderas, San Salvador. 28 October 1999
- 1999 "El Uso de Derechos Transferibles de Agua y Mercados de Agua: Casos de México y Chile" Principal paper presented to the XLV Annual Meeting of the PCCMCA in Guatemala City Guatemala, April 1999.
1996. "The 'Decentralization' of Water Resources Management in Mexico." Selected paper presented at the International Society for Ecological Economics meetings in Boston, MA. August 1996.
1996. "A Review of Economic Appraisal of Environmental Goods and Services in Development Projects." Selected paper presented at the Conference on Integrating Environmental Assessment and Socio-Economic Appraisal in the Development Process. Development and Planning Center. University of Bradford. Bradford. U.K. May 1996.
1996. "Water Resource Management and Water Markets in Chile." Presented at the School of Development Studies Seminar, University of East Anglia. U.K. May 1996.
1996. "Recent Water Resource Management Experience in Chile: Water Markets." Presented at the Middle East and African Water Issues Seminar. School of Oriental and African Studies. University of London. U.K. January 1996.

1995. "Economic and Financial Gains from Water Market Transactions in Chile" (with K.W. Easter). Selected paper presented at the American Agricultural Economics Association annual meeting Indianapolis, IN. August 1995.
1993. "Un Estudio del Mercado de Aguas en Chile." Presented at the Department of Agrarian Economics seminar Pontificia Universidad Católica de Chile October 1993.
1988. "Changes in Yield and Price Probability Distributions Due to Learning by Doing" (with M. Reed) Selected paper presented at the American Agricultural Economics Association annual meeting Nashville, TN. August 1988.

UNDERGRADUTATE COURSES TAUGHT

<i>Principles of Microeconomics</i>			North Dakota State University
Summer 2015	8 weeks	3 credits	17 students
<i>Elements of Economics</i>			North Dakota State University
Summer 2019	8 weeks	3 credits	31 students
Summer 2018	8 weeks	3 credits	38 students
Summer 2017	8 weeks	3 credits	44 students
Summer 2016	8 weeks	3 credits	47 students
Fall 2014	16 weeks	3 credits	18 students
Spring 2014	16 weeks	3 credits	77 students
Fall 2013	16 weeks	3 credits	44 students
Spring 2013	16 weeks	3 credits	88 students
Fall 2012	16 weeks	3 credits	128 students
Fall 2012	16 weeks	3 credits	47 students
<i>Principles of Microeconomics</i>			Kasetsart University, Bangkok Thailand
Fall 2009	16 weeks	3 credits (50%)	92 students
<i>Natural Resource Economics</i>			North Dakota State University
Fall 2019	16 weeks	3 credits	44 students
Fall 2018	16 weeks	3 credits	45 students
Fall 2017	16 weeks	3 credits	35 students
Fall 2016	16 weeks	3 credits	42 students
Fall 2015	16 weeks	3 credits	35 students
Fall 2014	16 weeks	3 credits	47 students
Fall 2013	16 weeks	3 credits	44 students
Fall 2012	16 weeks	3 credits	44 students
Fall 2011	16 weeks	3 credits	35 students
Fall 2010	16 weeks	3 credits	48 students
Fall 2008	16 weeks	3 credits	45 students
Fall 2007	16 weeks	3 credits	21 students
Fall 2006	16 weeks	3 credits	36 students
Fall 2005	16 weeks	3 credits	17 students
Fall 2004	16 weeks	3 credits	15 students
Spring 2003	16 weeks	3 credits	19 students
<i>Environmental Economics</i>			North Dakota State University
Fall 2003	16 weeks	3 credits	7 students
Spring 2002	16 weeks	3 credits	15 students

<i>Environmental and Resource Economics,</i> Spring 1995	15 weeks	3 credits	Macalaster College, St Paul Mn., 12 students
<i>Principles of Macroeconomics,</i> Winter 1995	12 weeks	3 credits	Metropolitan State University, Minneapolis Mn. 14 students
Spring 1995	12 weeks	3 credits	13 students

GRADUATE COURSES TAUGHT

<i>Environmental Economic, Law, and Policy</i> Fall 2009	4 weeks	3 credits (50%)	Chulalongkorn University, Bangkok Thailand 26 students
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<i>Natural Resource Economics</i>			North Dakota State University
Fall 2018	16 weeks	3 credits	1 student
Fall 2017	16 weeks	3 credits	5 students
Fall 2016	16 weeks	3 credits	4 students
Fall 2015	16 weeks	3 credits	3 students
Fall 2014	16 weeks	3 credits	8 students
Fall 2013	16 weeks	3 credits	6 students
Fall 2012	16 weeks	3 credits	7 students
Fall 2011	16 weeks	3 credits	13 students
Fall 2010	16 weeks	3 credits	12 students
Fall 2008	16 weeks	3 credits	9 students
Fall 2007	16 weeks	3 credits	8 students
Fall 2006	16 weeks	3 credits	7 students
Fall 2005	16 weeks	3 credits	4 students
Fall 2004	16 weeks	3 credits	4 students
Spring 2003	16 weeks	3 credits	3 students

<i>Environmental Economics</i> Fall 2003	16 weeks	3 credits	North Dakota State University 2 students
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<i>Advanced Microeconomics</i>			North Dakota State University
Fall 2019	16 weeks	3 credits	13 students
Fall 2018	16 weeks	3 credits	15 students
Fall 2017	16 weeks	3 credits	12 students
Fall 2016	16 weeks	3 credits	12 students
Fall 2015	16 weeks	3 credits	11 students
Fall 2014	16 weeks	3 credits	13 students
Fall 2013	16 weeks	3 credits	13 students
Fall 2012	16 weeks	3 credits	9 students
Fall 2011	16 weeks	3 credits	12 students
Fall 2010	16 weeks	3 credits	4 students
Fall 2008	16 weeks	3 credits	8 students
Fall 2007	16 weeks	3 credits	16 students
Fall 2006	16 weeks	3 credits	10 students
Fall 2005	16 weeks	3 credits	15 students
Fall 2004	16 weeks	3 credits	13 students
Fall 2003	16 weeks	3 credits	13 students
Fall 2002	16 weeks	3 credits	11 students

<i>Microeconomía</i>				CATIE, Turrialba, Costa Rica
Second Quarter, 2001	12 weeks	3 credits	13 students	
Second Quarter, 2000	12 weeks	3 credits	14 students	
Second Quarter, 1999	12 weeks	3 credits	13 students	
Third Quarter, 1998	12 weeks	3 credits	12 students	
<i>Economía Ambiental</i>				CATIE, Turrialba, Costa Rica
Third Quarter, 2001	12 weeks	3 credits	12 students	
Third Quarter, 2000	12 weeks	3 credits	13 students	
Fourth Quarter, 1999	12 weeks	3 credits	13 students	
Fourth Quarter, 1998	12 weeks	3 credits	12 students	

TRAINING COURSES ORGANIZED AND TAUGHT

2000. Environmental Economics Teaching Workshop (in Spanish)
Co-Coordinator and Speaker 2 days, 12 participants CATIE
- Course in Economic Valuation of Forest Goods and Services, sponsored by FAO (in Spanish)
Professor and Co-Coordinator 5 days, 23 participants CATIE
- Course in Economic Valuation of Forest Goods and Services, sponsored by FAO (in English)
Professor and Co-Coordinator 5 days, 12 participants CATIE
- Strategic Course in Economic Valuation of Environmental Goods and Services (in Spanish)
Coordinator and Professor 11 days, 8 participants CATIE
- Environmental Economics Teaching Workshop (in Spanish)
Co-Coordinator and Speaker 3 days, 15 participants CATIE
1999. Strategic Course in Economic Valuation of Environmental Goods and Services (in Spanish)
Coordinator and Professor 11 days, 10 participants CATIE
- Course in Economic Valuation of Environmental Goods and Services, (in Spanish)
Coordinator and Professor 5 days, 15 participants Universidad de Panamá
- Course in Economic Valuation of Environmental Goods and Services, (in Spanish)
Professor via TeleConference 1 day, 12 participants, organized by REALAC in Bolivia
- Course in Climate Change, CATIE *Professor* 1 day, 12 participants.
1998. Strategic Course in Economic Valuation of Environmental Goods and Services (in Spanish)
Professor 5 days, 11 participants, CATIE

GRADUATE STUDENTS SUPERVISED

Graduated with Ph.D., North Dakota State University

Mohammed Alshareef 2019 King Abdulaziz University, Saudi Arabia
 James Leiman 2019 North Dakota Department of Commerce

Graduated with M.S. Degree, North Dakota State University

Heshani Manaweera Wickramage 2019 Ph D Student
 Curriculum Vitae. Robert R. Hearne. June 2019 16

Jaesung Choi 2012	PhD student NDSU
Qingqing Yin 2012	Researcher, China
Nirodha DeSilva 2009	Sri Lanka
Craig Kritsky, 2008	Lecturer, NDSU
Michael Zimanski, 2008	Industrial Engineer, Swift Brands
David Torpen, 2008	Analyst, US Bank
Sheldon Tuscherer, 2007	Research Specialist, NDSU
Mariya Burdina, 2004	Ph.D. Student, University of Colorado

Graduated with M.S. Degree, CATIE

Marco Otárola , 2001	PhD Student, CATIE
Martha Gonzalez, 2001	Consultant, El Salvador
Carlos Martínez, 2001	Ministry of Agriculture, Honduras
Karla Del Cid, 2001	Ministry of Agriculture, Honduras
Mirel Volcan, 2000	TC Services, Venezuela
Patricia Panting, 2000	Minister of Environment and Natural Resources, Honduras
Vilma Calderón, 2000	PhD. Student Texas A&M University
Cristóbal Mejia, 2000	Researcher, OAS, Washington, D.C.
Jose Manuel Gonzalez, 2000	Researcher, CATIE, Costa Rica
Cesar Alejandro Santos, 2000	Researcher, CATIE, Nicaragua
Zenia Salinas, 1999	Researcher, CATIE, Costa Rica
Ximena Landazuri, 1999	Consultant, Ecuador

STUDENT GROUPS ADVISED

CERES Women’s Fraternity	NDSU Chapter Advisor	2004 – 2009
Habitat for Humanity	NDSU Chapter Advisor	2004 – 2009

PROFESSIONAL ASSOCIATIONS

American Agricultural Economics Association	Member
International Agricultural Economics Association	Member
Association of Environmental and Resource Economics	Member
Western Agricultural Economics Association	Member
Gamma Sigma Delta, NDSU Chapter	Member
W-1190 Western Water Research Group	Member
W-2133 Western Non-Market Valuation Research Group	Member

CONSULTANCIES

Missouri River Joint Water Board
 International Water Management Institute
 Department for International Development (United Kingdom)
 The Center for Research on the Changing Earth System, Columbia, MD.
 Agricultural Engineering Research Center, Taiwan

LANGUAGES

English: (native speaker).
 Spanish: excellent written and oral skills, with six years professional experience in Latin America.
 Setswana: basic communication ability.