

CURRICULUM VITAE

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Education: Ph.D., Agricultural Economics, University of California, Davis, 1980
M.E., Economics, North Carolina State University, 1976
B.A., Economics, University of North Carolina, 1975

Current Positions:

Juli Plant Grainger Professor of Global Environmental Health, Nicholas School of the Environment, Duke University, (with secondary appointments in the Duke Global Health Institute and Department of Economics). *Responsibilities:* teaching and research in environmental economics, global environmental health, environmental policy analysis, and development economics.

Deputy Director, Duke Global Health Institute, Duke University. *Responsibilities:* oversee institute's strategic planning and initiatives, faculty recruitment and development, and international partnerships.

Previous Experience:

Visiting Scholar, Business and Environment Initiative, IUCN – World Conservation Union, Gland, Switzerland, 2001-2002.

Associate Professor, Nicholas School of the Environment, Duke University, 1988-1996.

Visiting Economist, Directorate General of Forest Protection and Nature Conservation, Ministry of Forestry, Government of Indonesia, 1995-1996.

Visiting Fellow, Economic Growth Center, Yale University, 1987-1988.

Associate Professor, Department of Agricultural Economics, Virginia Polytechnic Institute and State University, 1985-1988.

Assistant Professor, Department of Agricultural Economics, Virginia Polytechnic Institute and State University, 1980-1985.

Post Graduate Research Agricultural Economist, University of California, Davis, 1978-1980.

Professional Societies:

Association of Environmental and Resource Economists
 American Agricultural Economics Association
 American Society of Tropical Medicine and Hygiene

Honorary Societies:

Phi Beta Kappa
 Phi Eta Sigma
 Gamma Sigma Delta
 Sigma Xi

Selected Professional Activities:

- 2014 - 2017:** Talent (education) Domain Co-Leader, Amsterdam Health and Technology Institute
- 2014 - 2017:** Board of Directors and Treasurer, Triangle Global Health Consortium
- 2012 - 2015:** Bass Connections in Global Health Theme Leader, Duke University
- 2011 - 2015:** Member, National Advisory Environmental Health Science Council, National Institutes of Health.
- 2009 - 2015:** Faculty Leader, Global Environmental Health Signature Research Initiative, Duke Global Health Institute.
- 2007-2014:** Editorial Board, Journal of Natural Resources Policy Research.
- 2007:** Consultant to the Organization for Economic Cooperation and Development (OECD) for report on international cost-sharing for biodiversity conservation.
- 2002-2007:** Chair, Environmental Economics and Policy Program, Nicholas School (and 1990-92, 1996-98)
- 2004-2005:** Advisor to the World Health Organization on Reporting of DDT Use Under the Stockholm Convention on Persistent Organic Pollutants
- 2001-2004:** Consultant to the International Union for the Conservation of Nature (IUCN) on economic incentives for biodiversity conservation in Bulgaria and Romania.
- 2001-2008:** Consultant to the World Bank Group on efforts to encourage private sector biodiversity conservation in Tanzania, Mozambique and Mongolia.
- 1999-2000:** Chair, Division of Environmental Sciences and Policy, Nicholas School

- 1999-2007:** Board of Directors, Coral Reef Alliance
- 1998-2001:** Board of Directors, Association of Environmental and Resource Economists
- 1998-2011:** Consultant to the World Bank Group on ecotourism and sustainable financing for Komodo National Park, Indonesia.
- 1998:** Consultant to the Packard Foundation on the development of a marine and coastal biodiversity funding strategy.
- 1992-1995:** Director of Undergraduate Studies, Environmental Sciences and Policy Program, Duke University.
- 1994-1995:** Consultant to Winrock International and U.S. Agency for International Development for a report on the economics of biodiversity
- 1992:** Consultant to the Asian Development Bank on Indonesia Biodiversity Conservation Project.
- 1990-1991:** Consultant to the World Bank on the preparation of a global forest policy paper.
- 1989-1995:** Editorial Board, Journal of Sustainable Agriculture.
- 1986-1987:** Consultant to U.S. Fish and Wildlife Service on economic analysis of wetlands.
- 1985-1988:** Consultant to U.S. Department of the Interior, Office of Policy Analysis, Washington, D.C., for economic analysis on a congressionally mandated study of the effects of federal policies on the preservation and development of wetlands.
- 1985:** Consultant to U.S. Agency for International Development to provide technical assistance on research and graduate instruction to the Post Graduate Institute of Agriculture, University of Peradeniya, Sri Lanka.
- 1984:** Consultant to the Organization of American States, Washington, D.C. for preparation of manual on incorporating natural disaster information into benefit-cost analysis.
- 1982:** Consultant to International Food Policy Research Institute, Washington, D.C., for preparation of report on crop insurance programs.

Primary Research Interests:

Environmental Economics
 Global Environmental Health
 Ecosystem Services
 Benefit-Cost Analysis
 Environmental Policy Analysis

Economic Development

Courses Taught:

Social Science Surveys for Environmental Management
 Economics of Environmental Management
 Environmental Social Sciences Research Workshop
 Economic Analysis of Environmental Policy
 Resource and Environmental Economics
 Advanced Environmental Economics
 Introduction to Environmental Sciences and Policy
 Resource and Environmental Policy
 Seminar on Economic Valuation of the Environment
 Seminar on Biodiversity Management
 Seminar on Environmental Equity

Awards:

Duke University Scholar/Teacher of the Year, 2004
 Outstanding Teacher of the Year, 1989 and 1998, Nicholas School of the Environment

Books:

X.N. Zhou, R. Kramer, and W.Z. Yang, editors, *Malaria Control and Elimination Program in the People's Republic of China*, *Advances in Parasitology*, vol. 86, 1-360 (2014).

R.A. Kramer, C. van Schaik, and J. Johnson, editors, *Last Stand: Protected Areas and the Defense of Tropical Biodiversity*, Oxford University Press, 1997.

Articles:

D.A., Miteva, R.A. Kramer, Z. Brown, and M. Smith, "A spatial model of household fuelwood extraction in northern Uganda." In *Selected Paper prepared for presentation at the Agricultural & Applied Economics Association's 2013 AAEA & CAES Joint Annual Meeting, Washington DC, Am J Agric Econ* (2017) aax027.

Z.S. Brown and R.A. Kramer, "Preference Heterogeneity in the Structural Estimation of Efficient Pigovian Incentives for Insecticide Spraying to Reduce Malaria," *Environmental and Resource Economics* (forthcoming)

S.K. Pattanayak, R.A. Kramer, and J.R. Vincent, "Ecosystem Change and Human Health: Implementation Economics and Policy," *Philosophical Transactions B* (2017): 372: 1722, p.20160130

Z.S. Brown, R.A. Kramer, D. Ocan, and C. Oryema, "Household Perceptions and Subjective Valuations of Indoor Residual Spraying Programs to Control Malaria in Northern Uganda," *Infectious Diseases of Poverty* 5 (2016): 100-113.

S.L. Macdonald, R.L. Lewison, S.E. Roady, R.A. Kramer, D. Rigling-Gallagher, and A.J. Read, "Comparing Stakeholder Perceptions with Empirical Outcomes from Negotiated

Rulemaking Policies: Is Participant Satisfaction a Proxy for Policy Success?," *Marine Policy* 73 (2016): 224-230.

R. Rahman, A. Lesser, L. Mboera, and R. Kramer, "Cost of Microbial Larviciding for Malaria Control in Rural Tanzania," *Tropical Medicine & International Health* 21 (2016): 1468-1475.

D. Kim, Z. Brown, R. Anderson, C. Mutero, M.L. Miranda, J. Wiener, and R. Kramer, "The Value of Information in Decision-Analytic Modeling for Malaria Vector Control in East Africa," *Risk Analysis* (2016).

C.J. Paul, R.A. Kramer, A. Lesser, C.M. Mutero, M.L. Miranda, and K. Dickinson, "Identifying Barriers in the Malaria Control Policymaking Process in East Africa: Insights from Stakeholders and a Structured Literature Review," *BMC Public Health* 15 (2015): 862- 870.

R.A. Kramer and A. Lesser, "Sustaining the Gains Made in Malaria Control and Elimination," *Infectious Diseases of Poverty* 4 (2015): 26-28.

X.N. Zhou, Z.G. Xia, R.B. Wang, Y.J. Qian, S.S. Zhou, J. Utzinger, M. Tanner, R. Kramer, and W.Z. Yang, "Feasibility and Roadmap Analysis for Malaria Elimination in China," 21-46, Chapter 2 in *Malaria Control and Elimination Program in the People's Republic of China*, X.N. Zhou, R. Kramer, and W.Z. Yang, editors, *Advances in Parasitology*, 86 (2014):1-360.

Z.G. Xia, L. Zhang, J. Feng, M. Li, X.Y. Feng, L.H. Tang, S.Q. Wang, H.L. Yang, Q. Gao, R. Kramer, T. Ernest, P. Yap, and X.N. Zhou, "Lessons from Malaria Control to Elimination: Case Study in Hainan and Yunnan Provinces," 47-79, Chapter 3 in *Malaria Control and Elimination Program in the People's Republic of China*, X.N. Zhou, R. Kramer, and W.Z. Yang, editors, *Advances in Parasitology*, 86 (2014):1-360.

C. Mutero, R. Kramer, C. Paul, A. Lesser, M.L. Miranda, L.E.G. Mboera, and B. Ameneshewa, "Factors Influencing Malaria Control Policy-making in Kenya, Uganda and Tanzania," *Malaria Journal* 13 (2014): 305-405.

R.A. Kramer, L.E.G. Mboera, K. Senkoro, A. Lesser, E.H. Shayo, C.J. Paul, and M.L. Miranda, "A Randomized Longitudinal Factorial Design to Assess Malaria Vector Control and Disease Management Interventions in Rural Tanzania," *Int. J. Environ. Res. Public Health* 11 (2014): 5317-5332.

L.E.G. Mboera, R.A. Kramer, M.L. Miranda, S.P. Kilima, E.H. Shayo, and A. Lesser, "Community Knowledge and Acceptance of Larviciding for Malaria Control in a Rural District of East-Central Tanzania," *Int. J. Environ. Res. Public Health* 11 (2014): 5137-5154.

R. Kramer, A. Jenkins, and A. Lesser, "The Role of Ecosystem Service Payments in Achieving Conservation Goals: Attitudes Among Farm Operators," chapter in *Valuing Ecosystem Services – Methodological Issues and Case Studies*, K.N. Ninan, editor, Cheltenham: Edward Elgar Publishers (2014): 395-413.

L.E.G. Mboera, H.D. Mazigo, S.F. Rumisha, and R.A. Kramer, "Towards Malaria

Elimination and its Implication for Vector Control, Disease Management and Livelihoods in Tanzania,” *Malaria World Journal* 4 (2013): 1-14.

Z. Brown, K. Dickinson, and R. Kramer, “Insecticide Resistance and Malaria Vector Control: The Importance of Fitness Cost Mechanisms in Determining Economically Optimal Control Trajectories,” *Journal of Economic Entomology* 106 (2013): 366-374.

D. Kim, K. Fedak, and R. Kramer, “Reduction of Malaria Prevalence by Indoor Residual Spraying: A Meta-Regression Analysis,” *American Journal of Tropical Medicine and Hygiene* 87 (2012): 117-124.

C.M. Mutero, D. Schlodder, N. Kabatereine and R. Kramer, “Integrated Vector Management for Malaria Control in Uganda: Knowledge, Perceptions and Policy Development,” *Malaria Journal* 11 (2012): 21-31.

K.L. Dickinson, H.F. Randell, R.A. Kramer, E.H. Shayo, “Socioeconomic Status and Malaria-related Outcomes in Mvomero District, Tanzania,” *Global Public Health* 4 (2012): 384-99.

H. Randell, K. Dickinson, E. Shayo, L. Mboera, and R. Kramer, “Environmental Management for Malaria Control: Knowledge and Practices in Mvomero, Tanzania,” *EcoHealth* 7 (2010): 507–516.

W.A. Jenkins, B.C. Murray, R.A. Kramer, and S. P. Faulkner, “Valuing Ecosystem Services from Wetland Restoration in the Mississippi Alluvial Valley,” *Ecological Economics* 69 (2010): 1051-1061.

Y. Kraus Elsin, R.A. Kramer, W.A. Jenkins, “Valuing Drinking Water Provision as an Ecosystem Service in the Neuse River Basin,” *Journal of Water Resources Planning and Management* 136 (2010): 474-482.

R.A. Kramer, “Forests and Biodiversity: An Alternative View,” Chapter 4 in *Latin American Development Priorities: Costs and Benefits*, Bjorn Lomborg, editor, Cambridge Press, 2010.

R.A. Kramer, K.L. Dickinson, R.M. Anderson, V.G. Fowler, M.L. Miranda, C.M. Mutero, K.A. Saterson, and J.B. Wiener, “Using Decision Analysis to Improve Malaria Control Policy Making,” *Health Policy* 92 (2009): 133-140.

R.A. Kramer, J.I. Eisen-Hecht, and G.E. Vaughn, “Economics of Ecosystem Management for the Catawba River Basin,” chapter 6 in *Environmental Economics for Watershed Protection*, H. Thurston, M.T. Heberling and A. Schrecongost, editors, CRC/Taylor Francis Press, 2009.

R.A. Kramer, E.O. Sills, and S.K. Pattanayak, “National Parks as Conservation and Development Projects: Gauging Local Support,” chapter 7 in *Conserving and Valuing Ecosystem Services and Biodiversity - Economic, Institutional and Social Challenges*, K.N. Ninan, editor, London: Earthscan Press, 2009.

K.K. Karanth, R.A. Kramer, S.S. Qian, and N.L. Christensen, “Examining Conservation Attitudes, Perspectives, and Challenges in India,” *Biological Conservation*, 41 (2008):

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R. A. Kramer, "Economic Valuation of Ecosystem Services," chapter 11 in *Sage Handbook of Environment and Society*, Jules Pretty, et al. editors, 2008.

C. Liese, M.D. Smith, and R.A. Kramer, "Open Access in a Spatially Delineated Artisanal Fishery: The Case of Minahasa, Indonesia," *Environment and Development Economics*, 12 (2007):123-143.

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S. Cassels, S. Curran, and R.A. Kramer. "Do Migrants Degrade Coastal Environments? Migration, Natural Resource Extraction, and Poverty in North Sulawesi, Indonesia." *Human Ecology* 3 (2005): 329-363.

K. Saterson, N.L. Christensen, R.B Jackson, R.A. Kramer, S.L. Pimm, M.D. Smith, and J.B. Wiener, "Disconnects in Evaluating the Relative Effectiveness of Conservation Strategies," *Conservation Biology* 18 (2004): 597-599.

S.K. Pattanayak, E.O. Sills and R.A. Kramer, "Seeing the Forest for the Fuel," *Environment and Development Economics* 9 (2004): 155-179.

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R.A. Kramer and S.M.H. Simanjuntak, "Human Migration and Resource Use In Sulawesi Fishing Communities," pp. 739-740 in *Proceedings of the Ninth International Coral Reef Symposium*, Bali, Indonesia, 2000, Indonesian Institute of Sciences, 2 (2003).

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- S. Pattanayak and R. Kramer, "Pricing Ecological Services: Willingness to Pay for Drought Control Services in Indonesia," *Water Resources Research* 37 (2001): 771-778.
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- R. Kramer and E. Mercer, "Valuing a Global Environmental Good: U.S. Residents' Willingness to Pay to Protect Tropical Rain Forests," *Land Economics*, 73 (1997): 196-210. Reprinted in R.T. Carson, ed., *The Stated Preference Approach to Environmental Valuation*, Hampshire: Ashgate Publishing, 2007.
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- R.A. Kramer, D. Richter, S. Pattanayak, and N. Sharma, "Ecological and Economic Analysis of Watershed Protection in Eastern Madagascar," *Journal of Environmental Management*, 49 (1997): 277-295.
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- R.A. Kramer and N. Sharma, "Tropical Forest Biodiversity Protection: Who Pays and Why," chapter 8 in Kramer, C. van Schaik, and J. Johnson, editors, *Last Stand: Protected Areas and the Defense of Tropical and Biodiversity*, Oxford University Press, 1997.
- P.J. Ferraro and R.A. Kramer, "Compensation and Economic Incentives: Reducing Pressure on Protected Areas," chapter 9 in R.A. Kramer, C. van Schaik, and J. Johnson, editors, *Last Stand: Protected Areas and the Defense of Tropical Biodiversity*, Oxford University Press, 1997.

- P. Shyamsundar and R.A. Kramer, "Tropical Forest Protection: An Empirical Analysis of the Costs Borne by Local People," *Journal of Environmental Economics and Management*, 31 (1996): 129-144.
- R.A. Kramer, E. Mercer, and N. Sharma, "Valuing Tropical Rain Forest Protection Using the Contingent Valuation Method," chapter 10 in W. L. Adamowicz, et al., editors, *Forestry, Economics and the Environment*, Wallingford, U.K.: CAB International, 1996.
- T. Holmes and R.A. Kramer, "Contingent Valuation of Ecosystem Health," *Ecosystem Health* 2(1996): 56-60.
- P.J. Parks, R.A. Kramer, and R. Heimlich, "Simulating Cost Effective Wetlands Reserves," *Natural Resources Modeling*, 9 (1995): 81-96.
- T. Holmes and R. Kramer, "An Independent Sample Test of Yea-Saying and Starting Point Bias in Dichotomous-Choice Contingent Valuation," *Journal of Environmental Economics and Management*, 28 (1995): 121-132.
- E. Mercer, R. Kramer, and N. Sharma, "Rain Forest Tourism — Estimating the Benefits of Tourism Development in a New National Park in Madagascar," *Journal of Forest Economics*, 1(1995): 239-269.
- P. Parks and R. Kramer, "A Policy Simulation of the Wetlands Reserve Program," *Journal of Environmental Economics and Management*, 28 (1995): 223-240.
- M. Zhu, D.B. Taylor, S.C. Sarin, and R.A. Kramer, "Chance Constrained Programming Models for Risk-Based Economic and Policy Analysis," *Agricultural and Resource Economics Review* 23 (1994): 58-65.
- K. Reichelderfer and R.A. Kramer, "Agricultural Resource Policy," chapter 10 in G.A. Carlson, D. Zilberman, and J.A. Miranowski, editors, *Agricultural and Environmental Resource Economics*, New York: Oxford University Press, 1993.
- R.A. Kramer and L. Shabman, "The Effects of Agricultural and Tax Policy Reform on the Economic Return to Wetland Drainage in the Mississippi Delta Region," *Land Economics*, 69 (1993): 249-262.
- R. Kramer and V. Ballabh, "Management of Common-Pool Forest Resources," in G.H. Peters and B.F. Stanton, editors, *Sustainable Agricultural Development: The Role of International Cooperation*, Brookfield, Vermont: Dartmouth Publishing Co, 1992.
- R. Kramer, R. Healy, and R. Mendelsohn, "Forest Valuation," chapter 10 in Narendra Sharma, editor, *Managing the World's Forests*, World Bank Natural Resources Development Series, Arlington, VA.: Kendall Hunt, 1992.
- N. Sharma, R. Rowe, M. Grut, R. Kramer and H. Gregerson, "Conditions for Sustainable Development," chapter 18 in Narendra Sharma, editor, *Managing the World's Forests*, World Bank Natural Resources Development Series, Arlington, VA.: Kendall Hunt, 1992.
- S.M.M. Zuhair, D.B. Taylor, and R.A. Kramer, "Choice of Utility Functional Form: Its

Effect on Classification of Risk Preferences and the Prediction of Farmer Decisions." *Agricultural Economics*, 6 (1992): 333-344.

R.A. Kramer, A.L. Florey, and B.E. Utria, "Natural Hazard Risk Reduction in Project Formulation and Evaluation," chapter 2 in Steven O. Bender, editor, *Primer on Natural Hazard Management in Integrated Regional Development Planning*, Washington, DC: Organization of American States, 1991.

P.J. Parks and R.A. Kramer, "Costs of Wetlands Protection and Restoration Policies," in R.E. Heimlich, ed., *A National Policy of "No Net Loss of Wetlands"*, U.S. Department of Agriculture, Economic Research Service, Staff Report 9149, 1991.

R.A. Kramer, "Decision Analysis as a Tool in Integrated Environmental Management," in *Integrated Environmental Management*, chapter 5 John Cairns, Jr, and Todd V. Crawford, editors, Chelsea, Michigan: Lewis Publishers, 1991.

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J.M. Halstead, R.A. Kramer, and S.S. Batie, "Logit Analysis of Information in Animal Waste Management," *Production Agriculture*, 3 (1990): 540-544.

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