

RESUME

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Personal:

Birth: December 4, 1950, Austin, Texas
Married, Two Children
Citizenship: USA

Education:

Ph.D., Interdisciplinary Ph.D. Program in Business, Engineering, and Public Affairs;
University of Texas at Austin, 1980. Ford Foundation Dissertation Grant Award.
M.Sc., Economics, London School of Economics and Political Science, 1978.
M.P.A., Lyndon B. Johnson School of Public Affairs, University of Texas at Austin, 1976.
A.B., Economics, Brown University, 1972. Brown University Fellowship.

Professional Experience:

Professor, Departments of Environmental Sciences & Engineering, and City & Regional Planning; University of North Carolina at Chapel Hill. (on the faculty of the UNC-CH since 1981).

Chaired Professorship. (part-time) Manchester Business School, Innovation, Management, and Policy Division. United Kingdom. Appointed in 2007.

Visiting Professor. Department of Economics. Gothenburg University. Sweden. Summer, 2008.

Visiting Professor, Department of Urban Studies and Planning. Massachusetts Institute of Technology. Spring semesters, 1997 and 1998.

Consultant (long term), Infrastructure and Urban Development Department, The World Bank. September 1988-January 1990.

Visiting Fulbright Lecturer, Institut fur Rammordnung, Economics University of Vienna. April 1988.

Visiting Professor, Dipartimento di Electronica, Politecnico di Milano, Spring 1984.

Fulbright Scholar, Institute of Environmental Studies, University of Khartoum, Sudan. Fall 1983.

Visiting Assistant Professor, School of Environmental and Public Affairs, Indiana University, Summer 1982.

Water Resources Systems Analyst, Egyptian Academy of Scientific Research and Technology, Lake Nasser-River Nile Research Project. September 1977-August 1980.

Consultant, Ford Foundation. Cairo Field Office, 1977-1980.

Assistant Instructor, Department of Economics, University of Texas at Austin, 1978-1979.

International Institute for Applied Systems Analysis. Vienna, Austria. IIASA Soviet-American Graduate Student Exchange Program, Summer 1977. Ford Foundation Grant.

Staff Economist, National Commission on Water Quality, United States Congress. September 1973-August 1975.

Management Analyst, U.S. General Accounting Office, June 1973-August 1973. (Summer Internship).

Administrative Experience

Director of the Environmental Management and Policy Program, Department of Environmental Sciences and Engineering, 1995-2002; Acting Chairman, Public Policy Analysis Program. (Undergraduate Curriculum), University of North Carolina at Chapel Hill (UNC-CH). 1986-1988.

UNC Project Director, USAID-funded Water and Sanitation for Health Project (WASH). August 1986-July 1988.

Program Director. Masters in Regional Planning Concentration in "Planning in Developing Areas." Department of City & Regional Planning. UNC-CH. 1987-88.

Co-Director. World Bank Water Demand Research Team. Project on Household Demand for Improved Water Supplies in Rural Areas of Developing Countries. 1988-1990.

Co-Coordinator. Hubert Humphrey Fellowship Program. UNC-CH. 1990-1991.

Selected Current Activities

National Research Council, Water and Technology Board. Committee member for study entitled, "Assessment of Water Reuse as an Approach for Meeting Future Water Supply Needs." Appointed 2008.

Lead author for Water and Sanitation Challenge paper, Copenhagen Consensus II Project. 2007-2008. Copenhagen, Denmark.

Member of International "Blue Ribbon" Panel on Strategic Assessment of the Investment

Options for the Eastern Nile Council of Ministers. (“Nile Basin Scoping Study Team”).

Member of World Bank Task Force on resolving transboundary water resources issues on the Ganges River. 2008

Consultant to the Hopi Tribe in the adjudication of the water rights to the Little Colorado River, before the Supreme Court of Arizona. 2003-present.

Research Advisor – Economy and Environment Program for Southeast Asia –EEPSEA. (Singapore). 1998-present.

Research Advisor - Latin American and Caribbean Environmental Economics Program - LACEEP. (Turrialba, Costa Rica.). 2006-present.

Consultant, Eastern Nile Technical Regional Office. Addis Ababa, Ethiopia.

Consultant, World Bank, Nile Basin Initiative. Washington D.C.

Consultant, PATH. Seattle, Washington.

PhD Students Supervised (Chair of Doctoral Committee)

1. Xinming Mu. (1988). Department of City & Regional Planning, UNC-CH. Dissertation title: “Modeling Rural Water Demand Behavior: A Study of the Contingent Valuation Method.” Investment banker and entrepreneur. New Jersey, USA. (formerly Assistant Professor at the Lyndon Baines Johnson School of Public Affairs, University of Texas at Austin).
2. KyeongAe Choe. (1994). Department of City & Regional Planning, UNC-CH. Dissertation title: “Assessing the Accuracy of the Contingent Valuation Method for Valuing Improved Urban Infrastructure in the Context of a Developing Country.” Natural Resources Sector Manager, Asian Development Bank. Manila, Philippines.
3. Elizabeth McClelland. (1997). Department of City & Regional Planning, UNC-CH. Dissertation title: “The Use of Attitudinal Indicators in Contingent Valuation Research: A Test of Validity and Theoretic Compatibility.” Deceased. (formerly Staff Economist, United States Environmental Protection Agency).
4. Hua Wang. (1997). Department of Environmental Sciences and Engineering, UNC-CH. Dissertation title: “Contingent Valuation of Environmental Resources: A Stochastic Perspective.” Principal Economist, Research Department, The World Bank, Washington D.C.
5. Jennifer A. Davis. (1998). Department of Environmental Sciences and Engineering, UNC-CH. Dissertation title: “Assessing Community Preferences for Development Projects: Does Mode Matter? An Application of Household, Intercept, Telephone, and Focus Group Interview Methods.” Assistant Professor, Department of Civil and Environmental Engineering. Stanford University. Palo Alto, California. USA.
6. Julian Lampietti. (1999). Department of Public Policy, UNC-CH. Dissertation title: "Assessing Preferences for Health Care: Willingness to Pay for Malaria Prevention in Northern Ethiopia."

Economist. World Bank, Washington D.C. USA

7. Christine Poulos. (2000). Department of Public Policy, UNC-CH. Dissertation title: "Three essays on nonmarket valuation in less developed countries." Senior Environmental Economist. Research Triangle Institute, Research Triangle Park, N.C. USA

8. Xun Wu. (2000). Department of Public Policy, UNC-CH. "Game-theoretical approaches to water conflicts in international river basins -- A case study of the Nile Basin." Assistant Professor. Lee Kuan Yew School of Public Policy, National University of Singapore.

9. Linda Prokopy. (2002). Department of City & Regional Planning, UNC-CH. Dissertation title: "The Relationship between Participation and Project Outcomes: A Study of Rural Drinking Water projects in India." Assistant Professor of Natural Resources Planning, Department of Forestry and Natural Resources, Purdue University. West Lafayette, Indiana, USA.

10. Kristin Komives. (2003). Department of City & Regional Planning, UNC-CH. Dissertation title: "Infrastructure, Property Values, and Housing Choice: An Application of Property Value Models in the Developing Country Context." Senior Lecturer, Institute of Social Studies. The Hague, Netherlands.

11. Joe Cook. (2007). Department of Environmental Sciences and Engineering, UNC-CH. Dissertation title: "Are cholera and typhoid vaccines a good investment for a slum in Kolkata, India?" Assistant Professor, Evans School of Public Affairs, University of Washington.

12. Dohyeong Kim. (2007). Department of City and Regional Planning, UNC-CH. Dissertation title: "Strategy for Determining Vaccination User Fees and Locations: A Case Study in Rural China." Assistant Professor, North Carolina Central University.

13. Richard Thorsten. (2007). Department of City and Regional Planning, UNC-CH. Dissertation title: "Predicting Sustainable Performance and Household Satisfaction of Community-Oriented Rural Water Supply Projects: A Quantitative Evaluation of Evidence from Ghana and Peru." Research Director, Water Partners International. Kansas City, Mo.

14. Vimalanand Prabhu. (2007). Department of Public Policy, UNC-CH. Dissertation title: "Income Polling and Demand Aggregation in Low-Income Households in Navi Mumbai, India: Evidence from Willingness to Pay, Risky Choices, and Anthropometrics." Post-doctoral Researcher, Center for Disease Control, Atlanta, Ga.

Current PhD Students (Chair of Doctoral Committee)

Brian Maskery. Department of Environmental Sciences and Engineering, UNC-CH.

Marc Jeuland. Department of Environmental Sciences and Engineering, UNC-CH.

Chittrakarn Buchandranon. Department of Environmental Sciences and Engineering, UNC-CH.

Semra Ozdemir. Department of Environmental Sciences and Engineering, UNC-CH.

Publications:**Books:**

1. *Water Management Models in Practice: A Case Study of the Aswan High Dam*. 1983, Elsevier Scientific Publishing Co., Amsterdam. 246 pages (with Giorgio Guariso).
2. *High Hopes for High Tech: Microelectronics Policy in North Carolina*. Editor. University of North Carolina Press, 1985. 341 pages.
3. *Project and Policy Appraisal: Integrating Economics and the Environment*. Organization for Economic Cooperation and Development. Paris. 1994. 287 pages. (with David Pearce, Steven Georgiou, and David James).
4. *Economic Values and the Environment in the Developing World*. 1997. Edward Elgar Publishing, Ltd. UK. 167 pages. (with David Pearce, Steven Georgiou, and Dominic Moran).
5. *Expert Advice for Policy Choice: Analysis and Discourse*. Georgetown University Press. 1997. 430 pages. (with Duncan MacRae, Jr.)
6. *The Contingent Valuation Method in Developing Countries: A Guide*. (Under contract). Springer Publishing. Forthcoming, 2009

Refereed Articles:

1. "The Supply of Physicians and Physicians' Incomes: Alternative Projections of the Future." *Journal of Health Politics, Policy, and Law*. Vol. 2, No. 2, Summer 1977, pp. 227-256. (with D.C. Warner and M. Katz).
2. "A Multiobjective Programming Analysis of Lake Nasser Management." *Environment and Planning A*, Vol. 12, 1980, pp. 369-379. (with G. Guariso, K.E. Haynes, and M. Younis).
3. "Valuing Water in the Agricultural Environment of Egypt: Some Estimation and Policy Considerations." *Regional Science Perspectives*. Vol. 10, No. 1, 1980. pp. 109-126. (with K.E. Haynes).
4. "A Salt Balance Model of Lake Nasser." *Water Supply and Management*, Vol. 4, 1980. pp. 73-80. (with G. Guariso, M.A. Samie, and C. Kramer).
5. "Nile Water for Sinai: Framework for Analysis." *Water Resources Research*. Vol. 17, No. 6, December 1980. pp. 1585-1593. (with G. Guariso, B.S. Zikri, and K.H. Mancy).
6. "International Management of the Nile: Stage Three?" *Geographic Review*. Vol. 71, No. 1, January 1981. pp. 17-32. (with K.E. Haynes).
7. "A Real-Time Management Model for the Aswan High Dam Reservoir with Policy Implications." *Geographical Analysis*, Vol. 13, No. 4, 1981. pp. 355-372.

(with G. Guariso, K.E. Haynes, and M. Younis).

8. "Planning of Capacity Expansion: Stochastic Process and Game-Theoretic Approaches." *Socio-Economic Planning Sciences*. 1984. Vol. 18, No. 3, pp. 195-205.
(with K.E. Haynes et al.).

9. "Economic Analysis in Regulatory Decisions: The Implications of Executive Order 12291." *Science, Technology, and Human Values*, Winter 1984. Vol. 9, Issue 1, No. 46. pp. 63-71.
(with W. N. Grubb).

10. "Water Capacity Expansion: Some Local Planning and Design Considerations." *Journal of the American Planning Association*, Summer 1984. Vol. 50, No. 3, pp. 359-364. (with K.E. Haynes et al.).

11. "An Examination of Tax Credits for Solar Hot Water Heating Systems." *Energy Systems and Policy*. 1985. Vol. 9, No. 2. pp. 115-139.

12. "An Application of Multiobjective Programming to Waterfront Management." *Coastal Zone Management Journal*. 1985. Vol. 13, No. 2. pp. 151-176 (with Roger Stough).

13. "An Examination of EPA's Regulatory Impact Analysis of Uranium Mill Tailings." *Environmental Impact Assessment Review*. 1986: 6, pp. 223-252 (with William Drummond).
[Feature Article]

14. "The Issue of Standing in Cost-Benefit Analysis." *Journal of Policy Analysis and Management*. 1986. Vol. 5, No. 4, pp. 665-682. (with Duncan MacRae, Jr.).
Reprinted in *Benefit-Cost Analysis*, edited by Richard O. Zerbe. Edward Elgar Publishing, Ltd., Cheltenham: UK. 2008.

15. "Implications of Ethiopian Water Development for Egypt and Sudan." *International Journal of Water Resources Development*, Vol. 3, No. 2, 1987. pp. 105-114. (with Giorgio Guariso).
Reprinted in *Water Resources and Economic Development*, R.M. Saleth, editor. Edward Elgar Publishing, Cheltenham, UK. 2002. pp. 92-114.

16. "Computerized Information Management in a System-Poor Environment: Lessons from the Design and Implementation of a Computer System for the Sudanese Planning Ministry." *Third World Planning Review*, 9(4), 1987. pp. 361-379. (with Craig Calhoun and William Drummond).
Reprinted in *Sudan After Nimeiri*, edited by Peter Woodward. 1991. Routledge, London.

17. "Assessing Preferences in Cost-Benefit Analysis: Reflections on Rural Water Supply in Haiti." *Journal of Policy Analysis and Management*. Vol. 7, No. 2, 1988. pp. 246-263. (with Duncan MacRae, Jr.).

18. "Who Really Wants Donor Coordination?" *Development Policy Review*. Vol. 6, 1988. pp. 295-309. (with Craig Calhoun).

19. "Water Vending Activities in Developing Countries: A Case Study of Ukunda, Kenya." *International Journal of Water Resources Development*, September 1989.

- pp. 158-168. (with Donald T. Lauria, Daniel A. Okun, and Xinming Mu).
Reprinted in *Cost-Benefit Analysis*, edited by Richard Layard and Stephen Glaister, Cambridge University Press, 1994.
20. "Estimating the Willingness to Pay for Water Services in Developing Countries: A Case Study of the Contingent Valuation Method in Haiti." *Economic Development and Cultural Change*. January 1990. Vol. 38, No. 2, pp. 293-311. (with John Briscoe, Xinming Mu, and William Barron).
Reprinted in *Housing the Poor in the Developing World: Methods of Analysis, Case Studies and Policy*, edited by A. Graham Tipple and Kenneth G. Willis. 1991. Routledge, London.
Also reprinted in *The Stated Preference Approach to Environmental Valuation Volume III: Benefit-Cost Analysis and Natural Resource Damage Assessment*. Richard Carson, Editor. Ashgate Publishing., UK. 2007.
21. "Calculating the Value of Time Spent Collecting Water: Some Estimates for Ukunda, Kenya." *World Development*, February 1990. Vol. 18, No. 2, pp. 269-280. (with Xinming Mu and Robert Roche).
22. "Modeling Village Water Demand Behavior: A Discrete Choice Approach." *Water Resources Research*, 1990. Vol. 26, No. 4. pp. 521-529. (with Xinming Mu and John Briscoe).
23. "Strategy for Cost Recovery in the Rural Water Sector: A Case Study of Nsukka District, Anambra State, Nigeria." *Water Resources Research*, 1990. Vol. 26, No. 9, pp. 1899-1913. (with Apia Okorafor, Augustine Okore, and Alexander McPhail).
24. "Planning in Squatter Settlements: An Interview with a Community Leader." *Journal of Planning Education and Research*. 1990. Vol. 9, No. 3. pp. 207-212. (with Donald T. Lauria).
Reprinted in *Teacher's Guide to World Resources: Exploring Sustainable Communities*. World Resources Institute, Washington D.C.
25. "Judgments About Who Has Standing in Cost-Benefit Analysis? A Comment." *Journal of Policy Analysis and Management*. 1990. Vol. 9, No. 4. pp. 536-547. (with Duncan MacRae, Jr.).
26. "A Study of Water Vending and Willingness to Pay for Water in Onitsha, Nigeria." *World Development*. 1991. Vol. 19, No. 2/3, pp. 179-198. (with Donald T. Lauria and Xinming Mu).
Reprinted in *Economic Analysis of Environmental Impacts*, by John Dixon, Louise Fallon Scura, Richard Carpenter, and Paul Sherman. Earthscan Publications, Second Edition, 1994.
Also reprinted in *Economics of Water Resources* edited by R. Quentin Grafton. Elsevier Press. Forthcoming in 2008.
27. "Giving Respondents Time to Think in Contingent Valuation Studies: A Developing Country Application." *Journal of Environmental Economics and Management*. May, 1992. Vol. 22, pp. 205-225. (with V. Kerry Smith and others).
Reprinted in *Environmental Valuation*, edited by Kenneth G. Willis, Kenneth Button, and Peter Nijkamp. Edward Elgar Publishing, Cheltenham, UK. 1999. Volume 1, Chapter 11.
28. "Opportunities for Regional and International Cooperation in the Nile Basin." *Water International*. Vol. 17, No. 3, September, 1992. pp. 144-154.
(with Elizabeth McClelland)

29. "Possible Adverse Effects of Increasing Block Water Tariffs in Developing Countries." *Economic Development and Cultural Change*. Vol. 41, No. 1. October, 1992. pp. 75-87.
30. "Demand for Water in Rural Areas: Determinants and Policy Implications." *World Bank Research Observer*. Vol. 8, No. 1, Jan. 1993. pp. 47-70.
(with John Briscoe and others).
Reprinted in *Water Resources and Economic Development*, R.M. Saleth, editor. Edward Elgar Publishing, Cheltenham, UK. 2002. pp. 232-255.
31. "Household Demand for Improved Sanitation Services in Kumasi, Ghana: A Contingent Valuation Study." *Water Resources Research*. Vol. 29, No. 6, 1993. pp. 1539-1560 (with D.T. Lauria, A.M. Wright, K. Choe, J.A. Hughes, and V. Swarna).
32. "Water Resource Issues in Developing Countries" *Water Resources Research*. Vol. 29, No. 7, July, 1993. pp. 1883-1888. Introduction to Special Section: Water Resource Issues and Problems in Developing Countries. (with David Brookshire).
33. "Rethinking Rural Water Supply Policy in the Punjab, Pakistan." *Water Resources Research*. Vol. 29, No. 7, July, 1993. pp. 1943-1954. (with Anjum Altaf, V. Kerry Smith, and Haroon Jamal). Reprinted in *Economics of Water Resources*, edited by R. Quentin Grafton, *The International Library of Critical Writings in Economics*, 2008.
34. "Rent-Seeking in the Water Supply Sector: A Case Study of Jakarta, Indonesia." *Water Resources Research*. Vol. 29, No. 7, July, 1993. pp. 1965-1974. (with Laszlo Lovei).
35. "Household Sanitation in Kumasi, Ghana: A Description of Current Practices, Attitudes, and Perceptions." *World Development*, Vol. 21, No. 5, 1993. pp. 733-748. (with D.T. Lauria, A.M. Wright, K. Choe, J.A. Hughes, and V. Swarna).
36. "The Economic Benefits of Surface Water Quality Improvements in Developing Countries: A Case Study of Davao, Philippines." *Land Economics*. Vol. 72, No. 4. November, 1996. pp. 519-537. (with KyeongAe Choe and Donald Lauria).
Reprinted in *Urban Planning and Management*, edited by R. Kerry Turner and Ian Bateman. (part of the series, *Managing the Environment for Sustainable Growth*). Edward Elgar, UK, 2000.
Also reprinted in *Economics of Water Quality*, edited by K. William Easter and Naomi Zeitouni. (Part of the series, *The International Library of Environmental Economics and Policy*). Ashgate, UK, 2005.
37. "Administering Contingent Valuation Surveys in Developing Countries." *World Development*. Vol. 26, No. 1. 1998. pp. 21-30.
Reprinted in *The Stated Preference Approach to Environmental Valuation Volume III: Benefit-Cost Analysis and Natural Resource Damage Assessment*. Richard Carson, Editor. Ashgate Publishing., UK. 2007.
38. "Playing Chicken on the Nile? The Implications of Microdam Development in the Ethiopian Highlands and Egypt's New Valley Project." *Natural Resources Forum*. August, 1998. pp. 155-163. (with John Waterbury).
39. "Participatory" Research for Development Projects: A Comparison of the Community Meeting and Household Survey Techniques. *Economic Development and Cultural Change*.

Vol. 41, No. 1. October, 1998. pp. 73-94. (with Jennifer Davis).

40. "Implementing a Demand-driven Approach to Community Water Supply Planning: A Case Study of Lugazi, Uganda. *Water International*. Vol. 23, 1998. pp. 134-145. (with Jennifer Davis and Elizabeth McClelland).

Reprinted in *Water Resources and Economic Development*, R.M. Saleth, editor. Edward Elgar Publishing, Cheltenham, UK. 2002. pp. 446-457.

41. "Designing a Neighborhood Deal: for Urban Sewers: A Case Study of Semarang, Indonesia." *Journal of Planning Education and Research*. 2000. 19: 297-308. (with Jennifer Davis, Richard Pollard, and Harry Miarsono).

42. "Individuals' Rates of Time Preference in Developing Countries: Results of a Multi-country Study." *Environmental Science and Technology*. April 15, 2000. 43:8 1445-1455. (with Christine Poulos).

[pubs.acs.org/isubscribe/journals/esthag/34/i08/pdf/es990730a.pdf]

43. "Future access to HIV vaccines - Report from a WHO-UNAIDS Consultation, Geneva, 2-3 October 2000." *AIDS* 15 (7): W27-W44 MAY 4 2001. (Ainsworth M, Bhamarapavati N, Batson A, Bishai D, Moran-Carpentier O, Casabona J, Clemens J, Collins C, El Habib R, Forsythe S, Goldenthal K, Kunanusont C, Longini IM, Mahoney R, Mastro TD, Ndumbe P, Pallangyo K, Rowley J, Sadoff J, Shin SI, Pratt D, Stanton BF, Suraratdecha C, Teixeira PR, van den Bussche I, Vandermissen W, Walsh JA, Whittington D, Widdus R.).

44. "How Important is Improved Water Infrastructure to Microenterprises? Evidence from Uganda." *World Development*. Vol. 29, No. 10. October, 2001. pp. 1753-1767. (with Jennifer Davis, Alice Kang, and Jeffrey Vincent.)

45. "Private demand for a HIV/AIDS vaccine: Evidence from Guadalajara, Mexico." *Vaccine*. 20, 2002. pp. 2585-2591. (with Osmar Matsui, John Freiberger, George Van Houtven, and Subhrendu Pattanayak).

46. "Improving the Performance of Contingent Valuation Studies in Developing Countries." *Environmental and Resource Economics*. Vol. 22, Nos. 1-2. June, 2002. Pp. 323-367.

47. "Behavioural studies of the domestic demand for water services in Africa: a reply to Stephen Merrett." *Water Policy*. Vol. 4, No. 1, 2002. pp. 83-88.

48. "Household Demand for Improved Piped Water Services in Kathmandu, Nepal." *Water Policy*. Vol. 4, Issue 6, 2002. pp. 531-556. (with Subhrendu Pattanayak, Jui-Chen Yang, and Bal Kumar).

49. "Municipal Water Pricing and Tariff Design: A Reform Agenda for South Asia." *Water Policy*. 5, 2003, pp. 61-76.

50. "The Economic Benefits of Malaria Prevention: A Contingent Valuation Study in Marracuene, Mozambique." *Journal of Health and Population in Developing Countries*. July 15,

2003. (with Armando Castelar Pinheiro and Maureen Cropper). www.jhpcd.unc.edu/2003_papers/ecowhit.pdf
51. "Visions of Nile Development." *Water Policy*. Vol. 6, No. 1. 2004, pp. 1-24.
52. "Why Have Some Countries on International Rivers been Successful Negotiating Treaties? A Global Perspective." *Water Resources Research*. Vol. 40, No. 5, May 2004. 18 pages. (with Jennifer Song).
53. "Ethical Issues with Contingent Valuation Surveys in Developing Countries: A Note on Informed Consent and other Concerns." *Environmental and Resources Economics*. Vol. 28, No. 4. pp. 507-515. 2004.
54. "Challenges for Water Sector Reform in Transition Economies." *Water Policy*. 6 (4). 2004. pp. 1-15. (with Jennifer Davis).
55. "The Demand for a Malaria Vaccine: Evidence from Ethiopia." *Journal of Development Economics*. Vol. 75, pp. 303-318, 2004. (with Maureen Cropper, M. Haile, J.Lampietti, and C. Poulos.)
56. "Costs-of-illness of typhoid fever in Indian urban slum community: implications for vaccination policy." *Journal of Health, Population, and Nutrition*. Vol. 22, No. 3, pp. 304-310, 2004. (with Rajiv Bahl, Anju Sinha, Christine Poulos, Sunil Sazawal, Ramesh Kumar, Dilip Mahalanabis, Camilo J Acosta, John Clemens, Maharaj K Bhan).
57. "A cost-benefit analysis of typhoid fever immunization programs in an Indian urban slum community." *Journal of Health, Population, and Nutrition*. Vol. 22, No. 3, pp. 311-321, 2004. (with Christine Poulos, Rajiv Bahl, Maharaj K. Bhan, John Clemens and Camilo J. Acosta).
58. "An Economic Reappraisal of the Melamchi Water Supply Project, Kathmandu, Nepal." *Portuguese Journal of Economics*. Vol. 3, No. 2, 2004. (with Donald T. Lauria, Vimalanand Prabhu, and Joe Cook).
59. "Private Demand for an AIDS vaccine in Thailand." *Health Policy*. Vol. 71, 2005. pp. 271-287. (with Chutima Suraratdecha, Martha Ainsworth, Viroj Tangcharoensathien).
60. "Coping with Unreliable Public Water Supplies: Averting Expenditures by Households in Kathmandu, Nepal." *Water Resources Research*. Vol. 4, No. 2, Feb. 2005. 11 pages. (with Subhrendu Pattanayak, Jui-Chen Yang, and Bal Kumar).
61. "Measuring Individuals' Valuation Distributions Using a Stochastic Payment Card Approach." *Ecological Economics*. Vol. 55, pp. 143-154, 2005. (with Hua Wang).
62. "Water Resources Management in the Nile Basin: The Economic Value of Cooperation." *Water Policy* 7, pp. 227-252, 2005. (with Xun Wu and Claudia Sadoff).
63. "Incentive Compatibility and Conflict Resolution in International River Basins: A Case Study of the Nile Basin." *Water Resources Research*. Vol. 42, W02417. 15 pages. 2006. (with Xun Wu).

64. "Household Demand for Typhoid Fever Vaccines in Hue, Vietnam: Implications for Immunization Programs." *Health Policy and Planning*. March 30, 2006. pp. 241-255. 2006. (with Do Gia Canh, Le Thi Kim Thoa, Nugroho Utomo, Nguyen Thai Hoa, Christine Poulos, Dang Thi Dieu Thuy, Dohyeong Kim, Andrew Nyamete, and Camilo Acosta).
65. "Designing stated choice experiments to produce graphical information for policymakers." *Journal of Policy Analysis and Management*. Vol. 26, No. 1, pp. 189-199. 2006. (with Dipika Sur, Joe Cook, Susmita Chatterjee, and Jacqueline Deen).
66. "Reliability of Stated Preferences for Vaccines with Time to Think." *Economic Inquiry*. Vol. 45, No. 1, pp. 100-114. 2007. (with Joe Cook, F. Reed Johnson, Andrew Nyamete, and Do Gia Canh).
67. "Private Demand for Cholera Vaccines in Rural Bangladesh." *Health Policy*. Vol. 85, pp. 184-195, 2007. (with Z. Islam, Brian Maskery, Andrew Nyamete Mark Horowitz, and Mohammad Yunus).
68. "Private Demand for Cholera Vaccines in Beira, Mozambique." *Vaccine*. Volume 25, Issue 14, 30. March 2007, pp. 2599-2609. (with Marcelino E. S. Lucas, Marc Jeuland, Jacqueline Deen, Nivalda Lazaro, Melissa MacMahon, Andrew Nyamete, Avertino Barreto, Lorenz von Seidlein, Arnaldo Cumbane, Francisco F. Songane).
69. "Private Household Demand for Cholera Vaccines in Hue, Vietnam." *Value in Health*. Vol. 11, No. 1, Jan/Feb. 2008, pp. 119-128. (with Dohyeong Kim, Do Gia Canh, Christine Poulos, Le Thi Kim Thoa, Joe Cook, Nguyen Thai Hoa, Andrew Nyamete, Dang Thi Dieu Thuy, Jackie Deen, Dang Duc Trach, John Clemens, Vu Dinh Thiem, Dang Duc Anh).
70. "Comparison of Cost-of-Illness with Willingness-to-Pay Estimates to Avoid Shigellosis: Evidence from China. Jan. 30, 2008. *Health Policy and Planning*. (with Christine Poulos, Soyeon Guh, and others).
71. "Household Demand for Preventive HIV/AIDS Vaccines in Thailand: Do Husbands' and Wives' Preferences Differ?" *Value in Health*. Vol. 11, No. 5, 2008. pp. 965-974.
- (with Chutima Suraratdecha, Christine Poulos, Martha Ainsworth, Vimalanand Prabhu, Viroj Tangcharoensathien).
72. "Rethinking Cholera and Typhoid Vaccination Policies for the Poor: Private Demand in Kolkata, India." *World Development*. Feb., 2009. Vol. 37, No. 2. (with Joe Cook, Dipika Sur, Brian Maskery, Christine Poulos, and others).
73. "Using private demand studies to calculate socially-optimal vaccine subsidies in developing countries." *Journal of Policy Analysis and Management*. Vol. 28, No. 1, pp. 6-28. 2009. (with Joseph Cook, Marc Jeuland, Brian Maskery, Donald Lauria, Dipika Sur, and John Clemens).
74. "How Well is the Demand-Driven, Community Management Model for Rural Water Supply Systems Doing? Evidence from Bolivia, Peru, and Ghana." *Water Policy*. Forthcoming, 2009.

(with Jennifer Davis, Linda Prokopy, Kristin Komives, Rich Thorsten, Heather Lukacs, Wendy Wakeman, and Alexander Bakalian).

75. "Cost-effectiveness Analysis of Typhoid Vaccination Programs: A Multi-country Study." *Vaccine*. Forthcoming, 2009. (with Joe Cook, John Clemens, Marc Jeuland, and others.)

76. "Evaluating investments in typhoid vaccines in two Kolkata slums." *Journal of Health, Population and Nutrition*. Forthcoming, 2009. (Joe Cook, Dipika Sur, and John Clemens).

77. "The Challenge of Improving Water and Sanitation Services in Less Developed Counties." *Foundations and Trends in Microeconomics*. Forthcoming, 2009. (W. Michael Hanemann, Claudia Sadoff, and Marc Jeuland).

78. "An Optimization Model for Reducing Typhoid Cases in Developing Countries Without Increasing Public Spending." *Vaccine*. Forthcoming, 2009. (with Donald T. Lauria, Brian Maskery, and Christine Poulos).

Papers under review or in preparation

1. "A Cost-Benefit Analysis of Cholera Vaccination Programs in Beira, Mozambique." *Under review*. (with Marc Jeuland, Marcelino Lucas, and John Clemens).
2. "Estimating the private benefits of vaccination against cholera in Beira, Mozambique: A travel cost application." *Under review*. (with Marc Jeuland and others).
3. "Cost-effectiveness Analysis of Cholera Vaccination Programs: A Multi-country Study." *Under review*. (with Mark Jeuland, Joe Cook, John Clemens, and others.)
4. "Estimation of Water Demand in Developing Countries: An Overview." *Under review*. (with Celine Nauges).
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51. "Assigning an Economic Value to Environmental Quality Improvements in Galveston Bay: Use and Nonuse Values." Ocean and Coastal Protection Division, United States Environmental Protection Agency. Washington D.C. May 20, 1994.
52. "Valuing Estuarine Resources: A Case Study of Galveston Bay." Paper presented at Workshop on the Economic and Environmental Valuation of Coastal and Estuarine Resources. University of Southern Maine. Wolfe's Neck Conference Center. June 2, 1994. Sponsored by the National Estuary Program, United States Environmental Protection Agency.
53. Whittington, Dale, Donald Lauria, and KyeongAe Choe. "The Effect of Giving Respondents "Time to Think" on Tests of Scope: An Experiment in Calamba, Philippines." Paper presented at Conference on "Value of Non Market Goods: Economic, Psychological and Policy Relevant Aspects of Contingent Valuation Methods." Bad Homberg, Germany. July 27, 1994.
54. "Water Supply Planning in Uganda Communities and Small Towns: A List of Policy Mistakes to Avoid." Guest Lecture, Directorate of Water Development Ministry of Natural Resources. Kampala, Uganda. July 25, 1994.
55. "Implementing a Demand-Side Investment Strategy in the Rural Water Sector: Lessons from Marracuene, Mozambique." Invited Lecture, PRONAR (Rural Water Agency, Ministry of Water). Maputo, Mozambique. November 25, 1994.
56. "The Construction of Environmental Indicators from Household Survey Data: New Developments." World Bank Conference on the Redesign of the Living Standards and Measurement Surveys. Washington D.C. Feb. 3, 1995.
57. "Environmental Values and Public Perceptions: Findings for Galveston Bay." Invited Presentation to the Galveston Bay Foundation, Rice University. Houston, Texas. Feb. 23, 1995.

58. "Galveston Bay: Economics and the Environment." Presentation to the Greater Houston Chamber of Commerce. Houston, Texas. Feb. 24, 1995.
59. "A Comparison of Contingent Valuation and Participatory Approaches for Assessing Household Demand for Improved Water and Sanitation Services." A Presentation to the Center for International Development, Research Triangle Institute. April 19, 1995.
60. "New Directions in Sanitation Planning in Developing Countries: A Case Study of Lugazi, Uganda." Presentation to the Annual Meetings of the Regional managers of the UNDP/World Bank Regional Water and Sanitation Programme. World Bank, Washington D.C. April 26, 1995.
61. "Comparing Participatory Meetings and Contingent Valuation Surveys as Approaches to Estimating the Demand for Infrastructure Services." Society for International Development. Washington D.C. May 12, 1995
62. "Administering Contingent Valuation Surveys in Developing Countries: Lessons Learned." Keynote Address. Annual Meetings of the Economy and Environment Program for Southeast Asia (EEPSEA). International Development Research Centre. Singapore. May 24, 1995.
63. "Water Resources Planning in Developing Countries." Two invited lectures. Harvard Institute for International Development. Cambridge, Mass. June, 1995.
64. "Ethiopian Options for Developing the Water Resources of the Blue Nile Basin." Presentation to the Ethiopian Ambassador to the United States and Embassy staff. July 3, 1995. Washington D.C.
65. "New Directions in Urban Sanitation Planning in Developing Countries." Presentation to the Ministry of Public Works and the Municipal Water Authority. Semarang, Indonesia. July 19, 1995.
66. "Air Quality Issues in Sofia, Bulgaria. Interview on Bulgarian National Radio. September 20, 1995.
67. "Approaches to Estimating the Economic Benefits of Malaria Reduction Interventions." Invited Presentation. World Health Organization, Geneva. September 29, 1995.
68. "Modeling the Relationship between Collective and Individual Decisions in Contingent Valuation Surveys." Invited Lecture, Department of Economics, University of London. December 8, 1995.
69. "The Economics Benefits of Malaria Control: A Contingent Valuation Study in Marracuene, Mozambique." Paper presented at the annual meetings of the Western Regional Science Association. Napa, California. Feb. 26, 1996.
70. "The Neighborhood Deal and Urban Sanitation Planning." Invited presentation to World Bank short course entitled, "Management, Financing, and Institutional Innovations: Urban Water and Wastewater Sector." April 10, 1996.

71. "Using Living Standard Measurement Surveys to Collect Data for Environmental Policy Analysis." Presentation to World Bank Workshop on Improving Living Standard Measurement Surveys. April 14, 1996.
72. "Crafting a Neighborhood Deal for Sewer Construction in Semarang, Indonesia: A Participatory Approach." Seminar presented at the Department of Urban Studies and Planning. Massachusetts Institute of Technology. May, 1996.
73. "Preliminary Findings for a Study of Household Demand for Improved Water and Sanitation Services." Seminar presented to the National Planning Ministry of the Government of Indonesia. Jakarta, August, 1996
74. Presentation of Nile Waters Negotiation Game at U.S. Department of State. Conference on Environmental Issues and National Security. Arlington, Va. September, 1996.
75. "Water and Sanitation Conditions in the Eastern Islands of Indonesia: Policy Implications." Seminar presented at the East Asia Infrastructure Department, World Bank. October, 1996.
76. "Spreading Misinformation: Ethical Dilemmas in the Implementation of Contingent Valuation Surveys." Presentation at the Annual Meetings of the Association for Public Policy Analysis and Management. November 1, 1996. Pittsburgh, Pa.
77. "Urban Sanitation Policy in Developing Countries: Current Debates and A Proposal for a New Direction." Presentation at the Annual Meetings of the Association for Public Policy Analysis and Management. November 1, 1996. Pittsburgh, Pa.
78. "The Implications of Microdam Development in the Ethiopian Highlands and Egypt's New Valley Project for Renegotiating the Nile Waters Agreement." Keynote Address, Vth Nile 2002 Conference. Addis Ababa, Ethiopia. Feb. 24-28, 1997.
79. "New Developments in Nile Waters Allocation." Presentation at U.S. Department of State, Washington D.C. August 27, 1997.
80. "A Review of Recent Experience with the Contingent Valuation Method in Water and Sanitation Project Preparation and Appraisal." Keynote Address. Conference on Willingness-to-Pay Studies in the Water Sector. September 15-17, 1997. New Delhi, India.
81. "Putting A Demand-Driven Planning Approach into Practice in the Water and Sanitation Sector." Presentation to UK staff engineers, Department of Foreign Assistance and Development, Annual Meetings for South Asia. September 18, 1997. Calcutta, India.
82. "Individuals' Rates of Time Preference in Developing Countries: Results of a Multi-country Study." Invited Lecture, Department of Economics, University of Dar es Salaam. October 6, 1997.
83. "Recent Developments in the Hydropolitics of the Nile Basin." Invited Lecture. Conference on Environmental Trends in the Middle East. Yale University. October 30, 1997.
84. "The Economic Value of Water in the Nile Basin." Invited presentation. World Bank

Washington D.C. July 9, 1998.

85. "The Political Economy of Increasing Block Tariffs in Developing Countries." Paper presented at the World Bank Conference on Political Economy of Water Pricing Implementation. November 3-5, 1998. (with John Boland).

86. "Challenges for Water Sector Reform in Transition Economies: A Case Study of Odessa, Ukraine." Paper presented at the World Bank Conference on Political Economy of Water Pricing Implementation. November 3-5, 1998. (with Jennifer Davis).

87. "Implementation Issues in Municipal Water Pricing Reform." Plenary Address to the Biannual Meetings of the Economy and Environment Program for Southeast Asia. Singapore, November 10-14, 1998.

88. "Problems with Increasing Block Water Tariffs in Developing Countries." Invited Lecture. Department of Urban Studies and Planning, Massachusetts Institute of Technology. February 8, 1999.

89. "The Demand of Poor Households for Improved Infrastructure Services." Invited Lecture. The World Bank. Private Provision of Infrastructure Program. March, 1999. Washington D.C.

89. "Infrastructure and the Poor. Invited Lecture. World Bank. March, 2000.

91. "Managing International Rivers: Scale and Scope of the Problem." Invited Lecture. World Bank Water Week. April, 2000.

92. "Infrastructure Coverage and the Poor: A Global Perspective." **Keynote Address.** International Conference, *Infrastructure for Development: Private Solutions and the Poor.* Sponsored by DIFD-World Bank. London. May 31- June 2, 2000.

93. "New Directions for the Field of Environmental and Resource Economics in Southeast Asia." **Keynote Address.** Inaugural Meetings of the Malaysian Association of Environmental and Resource Economists (MAERA). July 30, 2000. Malacca, Malaysia.

94. "The Use of State Preference Methods for Estimating Household Demand an HIV/AIDS Vaccine." Invited Lecture. Health Systems Research Center, Ministry of Public Health, Government of Thailand. August, 2000.

95. "Infrastructure Provision and the Poor: An Examination of the Living Standards Measurement Surveys in South Asia." Invited Lecture. Postgraduate Institute of Agriculture, University of Peradeniya. Kandy, Sri Lanka. May 18, 2000.

96. "Using GAMS Optimization Software to Model the Intra-year Nile Water Allocation Problem." Invited Lecture. The World Bank. Sept. 12, 2000.

97. "Thoughts on Estimating the Demand for a HIV/AIDS Vaccine and Preliminary Findings from Guadalajara, Mexico." Invited Presentation to the HIV/AIDS Task Force. World Health Organization. Geneva, Switzerland. October 2, 2000.

98. "The Effects of Privatization on Poor Households." Invited Lecture. Center for Development Policy, UN-WIDER University. Helsinki, Finland. October 5, 2000. (with Kristin Komives)
99. "The Tariffs Issues in the Design of Private Sector Participation Transaction in the Water and Sanitation Sector." Invited Lecture. UNDP-World Bank Water and Sanitation Program Workshop on Transaction Design and the Poor. Paris, France. Dec. 18-20, 2000.
100. "The Design of Water Tariffs in South Asia: Challenges and Opportunities." **Keynote Lecture.** Water and Sanitation Program-sponsored NAGARI Workshop. Mumbai, India. April 3, 2001.
101. "The Role of Economic Analysis in the Search for Cooperative Solutions to the Management of International River Basins." Invited Lecture. World Bank Annual Water Week Conference. April 18, 2001.
102. "Water Pricing and Tariff Design." Invited lectures. University of Florida at Gainesville, World Bank Utilities Training Program. June 21, 2001.
103. "A Cash Flow Equilibrium Model for Analysis of Water Pricing Decisions in Developing Countries." Invited Lecture. UNDP/World Bank Water and Sanitation Program. September 7, 2001. (with Kristin Komives).
104. "Household Demand for Improved Water Services in Kathmandu, Nepal." Invited Lecture. Economy and Environment Program for Southeast Asia. Hanoi, Vietnam. November 22, 2001.
105. "A Typology of International River." World Bank Institute, Feb. 27, 2002. Washington D.C.
106. Municipal Water Pricing and Tariff Design: A Reform Agenda for Developing Countries Issues Brief . Resources for the Future. August 22, 2002.
[[www.rff.org/Johannesburg/Johannesburg.htm#Urban Water](http://www.rff.org/Johannesburg/Johannesburg.htm#Urban%20Water)]
107. "Does Giving Respondents Time To Think Change Their Perceived Estimates Benefits of Vaccines in Hue, Vietnam." Plenary Address to the Biannual Meetings of the Economy and Environment Program for Southeast Asia. Singapore, November 18, 2003.
108. "The Costs and Benefits of Municipal Water and Sanitation Infrastructure in Developing Countries." Plenary Address to the Biannual Meetings of the Economy and Environment Program for Southeast Asia. Bangkok, November 19, 2004.
109. "Household Demand for Typhoid and Cholera Vaccines in Kolkata, India." Invited lecture, National Institute of Cholera and Enteric Diseases (ICMR). November 22, 2004.
110. "The Economic Case for Investments in Water and Sanitation Infrastructure." Invited lecture, Institute of Development Studies, Kolkata University. November 23, 2004.

111. “The Investment Case for the Expanded Use of Typhoid Vaccines in Vietnam, Pakistan, and Indonesia.” Plenary Address to the International Conference on Typhoid and Cholera Vaccines in South and Southeast Asia. Hanoi. January 12, 2005.
112. “The Consequences of Trade Liberalization for the Water and Sanitation Sector in Developing Countries.” Organization for Economic Cooperation and Development. Paris, France. February 3, 2005.
113. “Rethinking the Economics of Water and Sanitation Investments.” Department of Urban Studies and Planning. SPURS Luncheon Seminar. April; 4, 2005. Massachusetts Institute of Technology.
114. “The Economic Costs and Benefits of Investments in Municipal Water and Sanitation Infrastructure.” Invited Lecture, Water Resources Symposium. University of California at Berkeley. October 10, 2005.
115. “The Use of Economic Models for the Appraisal of Water Resources Infrastructure.” Invited lecture. Workshop of the Eastern Nile Planning Group. Addis Ababa, Ethiopia. November 8, 2005.
116. “Evaluating Infrastructure Investments in Developing Countries: Intuition vs. Analysis.” Invited Lecture, Lee Kwan Yew School of Public Policy. National University of Singapore. November 11, 2005.
117. “Lessons from Twenty five years of Fieldwork in Developing Countries.” Plenary Lecture. Inaugural Workshop of the Latin American and Caribbean Environmental Economics Program (LACEEP). February 21, 2006. San Jose, Costa Rica.
118. “The Economic Costs and Benefits of Investments in Municipal Water and Sanitation Infrastructure: A Global Perspective.” World Congress of Environmental and Resource Economics. Kyoto, Japan. July 2006. (with W. Michael Hanemann)
119. “Comparison of Cost-of-Illness with Willingness-to-Pay Estimates to Avoid Shigellosis: Evidence from China.” July 2005. World Congress of Environmental and Resource Economics. Kyoto, Japan. July 2006. (with Soyeon Guh, Christine Poulos, and others.)
120. “Post-construction Support Activities and the Sustainability of Rural Water Projects in Ghana.” World Congress of Environmental and Resource Economics. Kyoto, Japan. July 2006. (with Kristin Komives, Bernard Akanbang, Rich Thorsten, Benedict Tuffuor, Marc Jeuland, and Eugene Larbi).
121. “Preliminary Findings of the Nile Basin Scoping Team.” Seminar presented to World Bank management. November 20, 2006. Washington D.C.
122. “The Effect of Post-Construction Support on the Sustainability of Rural Water Systems.” Presentation at the World Bank, Water Week Conference. Feb. 28, 2007. (with Kristin Komives Jennifer Davis, Heather Lukacs, Linda Prokopy, Alexander Bakalian, Wendy Wakeman, and Richard Thorsten).

123. "Reflections on Cross-sectoral Investment Decisions." Invited Lecture. Department of Economics. University of Concepcion, Chile. October 5, 2007.
124. "Comparing the costs and benefits of investments in water and sanitation vs. vaccines in developing countries." Department of Civil and Environmental Engineering, Stanford University. October 18, 2007.
125. "The Costs and Benefits of Water and Sanitation Investments." Presentation to the Panel of Nobel Economists, Copenhagen Consensus 2008. May 28. Copenhagen, Denmark.
126. Presentations to the Eastern Nile Council of Ministers on the findings of the Blue Ribbon Commission (Scoping Study Team) on the opportunities for a joint, multipurpose investment program for the eastern Nile. June 9-12, 2008. Oxford, England.
127. "What Have We Learned from Twenty Years of Contingent Valuation Surveys in Developing Countries?" **Plenary Presentation** – Pre-conference Workshop on Environment and Development. 16th Annual Conference of the European Association of Environmental and Resource Economists. June 25-28, 2008. Gothenburg, Sweden.
128. "An Estimate of the Economic Value that Parents in Rural Bangladesh Place on *Ex-ante* Mortality Risk Reductions for their Children." Paper presented at the 16th Annual Conference of the European Association of Environmental and Resource Economists. June 25-28, 2008. Gothenburg, Sweden. (with Brian Maskery, Jacqueline Deen, Ziaul Islam).
129. "An Estimate of the Economic Value that Parents in Rural Bangladesh Place on *Ex-ante* Mortality Risk Reductions for their Children." Paper presented at the 16th Annual Conference of the European Association of Environmental and Resource Economists. June 25-28, 2008. Gothenburg, Sweden. (with Brian Maskery, Jacqueline Deen, Ziaul Islam).
130. "Assessing Household Preferences for Water and Electricity Services in Rural Ghana." Paper presented at the 16th Annual Conference of the European Association of Environmental and Resource Economists. June 25-28, 2008. Gothenburg, Sweden. (with Kristin Komives, Alexander Bakalian, Wendy Wakeman, Eugene Larbi, and Richard Thorsten).
131. "Comparing Investments in Improved Water Supply and Cholera and Typhoid Vaccination Programs." Paper presented at the 16th Annual Conference of the European Association of Environmental and Resource Economists. June 25-28, 2008. Gothenburg, Sweden. (with Marc Jeuland).
132. Multiple presentations to Egyptian, Sudanese, and Ethiopian audiences on the findings of the Blue Ribbon Commission's draft final report, *Opportunities for Cooperative Water Resources Development on the Eastern Nile: Risks and Rewards*, prepared for the Eastern Nile Council of Ministers. Cairo and Addis Ababa, August 25-29, 2008.

Selected Recent Workshops and Training Activities

1. "A Review and Assessment of Techniques for Systematic Client Consultation in World Bank Projects." Presentation to Environmental Training Course Offered to World Bank Staff, Duke University, June 22, 1995.

2. Organized and delivered 2-day workshop on "The Economic Value of Health Risks", Centers for Disease Control. Atlanta, Ga. (with V. Kerry Smith, Duke University). June 6-7, 1994.
3. Organized and delivered 2-day workshop for senior staff of the Directorate of Water Development, Ministry of Natural Resources, on the rural water supply and sanitation investment planning. Kampala, Uganda. July 25-26, 1994.
4. Organized 1-day workshop for World Bank Officials entitled, "Water Pricing in Developing Countries." Delivered several presentations. Washington D.C. October 25, 1994; November 1995.
5. Organized and presented workshop for senior technical and management staff of PRONAR (Rural Water Agency, Ministry of Water) on the use of contingent valuation surveys in community water supply planning. Maputo, Mozambique. November 16-25, 1994.
6. Organized and presented one-week workshop for senior technical and management staff of PRONAR (Rural Water Agency, Ministry of Water) on the use of demand-driven planning approaches in community water supply planning. Maputo, Mozambique. November 5-10, 1995.
7. "A Review and Assessment of Techniques for Systematic Client Consultation in World Bank Projects." Presentation to Environmental Training Course Offered to World Bank Staff, Duke University, June 22, 1995.
8. Organized and delivered 1-day workshop for senior staff of the Ministry of Public Works on demand-driven sanitation planning. July 28, 1995.
9. "The Economic of Sewage Investments in Developing Countries." Invited presentation to World Bank short course entitled, "Water and Sanitation Investments: The Enabling Environment." Johns Hopkins University, Baltimore, Maryland. September 8, 1995.
10. Organized 2-day workshop for World Bank staff entitled, "Water Pricing in Developing Countries." Delivered several presentations. Washington D.C. October, 1995; February, 1997, and October, 1998.
11. Organized and delivered three week training program on the use of the contingent valuation method in developing countries, for graduate students and consultants, Department of Economic, University of Dar es Salaam. Sept. 22-October 10, 1997.
12. Organized and presented a two-day seminar for the Department for International Development, UK. "Enhancing DFID Capacity for Demand Assessment in Water and Sanitation Projects." London, Dec. 15-16, 1997.
13. Director of Executive Training Course, "Water And Sanitation Planning in Developing Countries," in Summer Development Workshops at the Massachusetts Institute of Technology. June, 2000 and 2002.

14. Eight Invited Lectures, "The Use of the Contingent Valuation Method in Developing Countries." Department of Economics, University of Gothenburg, Sweden. May, 2003.
15. EEPSEA Training Program on the Use of Stated Preference Methods in Developing Countries. Hanoi, Vietnam. May 2004. (with Vic Adamowicz).
16. Three Lectures. "The Use of the Contingent Valuation Method and Travel Cost Models in Developing Countries." World Bank Training Program - Economics and the Environment. July 26-27, 2004.
17. Training course, "Economic Appraisal for Large Dam Projects," designed for water resources professionals in the Nile Basin. Cairo, Egypt. Jan. 29-Feb. 1, 2007.
18. Three lectures on environmental economics for development professionals in Canadian CIDA. Ottawa, Canada. April 27, 2007.
19. Twelve lectures on water policy in developing countries for environmental professionals in Southeast Asia. Kuala Lumpur, Malaysia. November 16-19, 2007.
20. Twelve lectures on Environment and Development. Tropical Agricultural Research and Higher Education Center (CATIE), Turrialba, Costa Rica. January 10-12, 2008.
21. Eight lectures on "Mistakes in Household Survey Design" for environmental professionals in Southeast Asia. Sponsored by the Economy and Environment Program for Southeast Asia. Bangkok, Thailand. May 9-10, 2008.
22. Ten lectures on Environmental Valuation and Development. Tropical Agricultural Research and Higher Education Center (CATIE), Turrialba, Costa Rica. July 28-August 2, 2008.

Selected Consultancies:

1. National Commission on Water Quality. Managed and assisted with the preparation of the Commission's technical appendices on the impact of water pollution control requirements on American industry.
2. Department of Civil Engineering, University of Texas at Austin. Study of the social and environmental effects of in-situ uranium mining in South Texas. September 1979-December 1980.
3. Ford Foundation, Cairo Field Office, 1977-1980.
4. Environmental Training and Management in Africa. (USAID project. Mission to Kenya. August 1983).
5. USAID Khartoum Mission. Project to develop a management information system for the Ministry of Finance and Economic Planning. July 1984-February 1986.
6. World Bank, UNDP Handpumps Project. Kenya Rural Water Survey. 1986.

7. World Bank, Infrastructure and Urban Development Department. Willingness to Pay for Improved Water Services Research Project. July 1987-Present.
8. Asian Development Bank. Manila, Philippines. 1990-1992.
9. Organization for Economic Development and Cooperation. Paris, France. 1990-present.
10. Chinese Research Academy of Environmental Sciences. Beijing, China. 1992.
11. World Bank, AF6PH, AF2PH.
12. Carried out an external program evaluation of both the Natural Resource Management and Environmental Economics MSc. degree programs for the Postgraduate Institute of Agriculture, University of Peradeniya. Kandy, Sri Lanka. May 15-20, 2000.
13. AIDS Vaccine Demand Research Team, Health Systems Research, Joint Ministry of Public Health, Government of Thailand, and World Bank Research Program.
14. Resource Person, Water Utilities Partnership, World Bank. Washington D.C. 2000-2001.

Research and/or consulting experience in the following countries:

<i>Africa:</i>	Egypt	Nigeria
	Sudan	Ghana
	Kenya	Liberia
	Tanzania	Ethiopia
	Uganda	Mozambique
<i>Asia:</i>	China	Indonesia
	Philippines	Thailand
	Pakistan	India
	Nepal	Korea
	Vietnam	Bangladesh
<i>Latin America:</i>		Haiti
	Chile	Guatemala
	Costa Rica	Mexico
	Colombia	
<i>Eastern Europe:</i>		Bulgaria
		Ukraine

Other:

Guest Editor, Special issue of *Water Resources Research* on water planning and policy in developing countries. July, 1993.

Guest Editor, *International Journal of Water Resources Development*, special edition on the management of the upper Nile. Vol. 3, No. 2, 1987.

Recipient (with Duncan MacRae) of the Raymond Vernon Award for the best article in Vol. 5 of the *Journal of Policy Analysis and Management*. ["The Issue of Standing in Cost-Benefit Analysis."]

Appointed to the World Bank's Nile Advisory Group. 1997-present.

Who's Who in Economics. Edgar Elgar Publishing, 2003.